China Council for International Cooperation on Environment and Development

Progress in Environment and Development Policies in China and Impact of CCICED's Policy Recommendations

（2015-2016）

CCICED Supporting Expert Group

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Foreword

A high-level policy advisory body approved by the Chinese government, the China Council for International Cooperation on Environment and Development (CCICED, the Council) is responsible for proposing policy recommendations on important issues in these fields. At the Council's annual general meetings, Chinese and foreign members engage in policy discussions based on policy research. These discussions lead to policy recommendations that are submitted to the State Council and to central government departments. The CCICED's organizational objectives are to further fulfill its unique role, improve its effectiveness, strengthen understanding of policy progress in China, and assist members to better offer advice and suggestions.

Annually since 2008 the support group for the Council's Chinese and international chief advisors has reported on *Progress of Important Policies Pertaining to China's Environment and Development, and Impact of CCICED Policy Recommendations*. The report aims to provide Council members and others with an overview of China's progress during the previous year and determine whether policy shifts are consistent with recommendations submitted by the CCICED to the government of China.

It is always difficult to attribute policy shifts to any single source, especially over time frames as short as one year. It is decision-makers who must determine the real impacts of the CCICED on China's environmental and development policies. But it is useful for the Council to examine whether or not general policy thrusts are heading in directions it advocates.

This paper is the ninth report provided by the Chinese members of CCICED's support group to its chief advisors. Some changes in presentation have been made to enhance clarity and accessibility: The first part of the report lists the key polices adopted in the previous year, grouped under broad environment and development policy rubrics; the second part presents in a concise table the linkages between CCICED recommendations and China's major policy shifts of the past year.

I – 2015-2016 ENVIRONMENT AND SUSTAINABLE DEVELOPMENT POLICY PROGRESS

1. Planning for Environment and Development

a) Outline of the 13th Five-Year Plan indicates directions for further improvement of ecological civilization in the next five years.

This document was issued in March 2016 by the National People's Congress (NPC). It puts forward a development model based on "innovation, coordination, green, openness, and sharing". The document emphasized adherence to the basic national policy of resource conservation and to environmental protection and sustainable development. It further commits to further developing civilization and improving production, outlining the possibility of achieving more affluent lifestyles while remaining ecologically sound. Other main points include accelerating the construction of a resource-saving, environment-friendly society, establishing modern approaches to construction where people are in harmony with nature, contributing to a beautiful China and hence, to ecological security across the globe.

According to this document, major eco-environmental objectives include general improvements to the environment, green and low-carbon production and consumption, efficient energy use, energy and water conservation, rational use of construction land, controls over total carbon emissions, a significant decrease in total emissions of major pollutants, spatial planning and the creation of ecological protection zones. The document lists 10 binding resource and environment indicators, when the 12th Five Year Plan Outline listed only eight. More specifically, the Outline stipulates that during the next five years, there should be significant cuts in water consumption (23%), energy consumption (15%) and CO_2 emission per unit of GDP (18%); forest coverage should increase to 23.04% of the landmass, the total discharge of the four main pollutants will decrease by 10-15%; moreover, there should be over 80% of days with good air quality in cities at or above the prefecture level. There should be a decrease of 18% in the cities at or above prefecture level that fail the air quality standards in terms of fine particulate matter (PM2.5). Finally, there should be more than 70% of China's surface water that meets Grade III or above quality.

The document invokes a "reform of the fundamental system of environmental governance" which states that local governments must fulfill their environmental responsibilities, environmental protection supervision and inspection must take place, and an environmental quality target-oriented responsibility system must be established, encompassing a monitoring

and evaluation process. The document advocates the implementation of a vertical management system for the monitoring, supervision and law enforcement of environmental protection agencies below the provincial level. It proposes the establishment of a trans-regional environmental protection agencies, as well as coordinated watershed, trans-regional and rural-urban joint prevention and control mechanisms. There is also mention of carrying on integrated monitoring and control of multi-pollutants, of setting up an enterprise discharge permit system for all fixed pollution sources, and putting in place a "one-license" management process for pollutants discharge. The Outline recognizes the need to build a sound system for the trading of emissions permits, to tighten up enforcement of environmental law, to carry out trans-regional enforcement, and to step up the monitoring of enforcement and investigation. Efforts should also be made to establish an environmental credit record and to keep a 'blacklist" of enterprises that illegally discharge emissions. At the same time, the Outline states enterprises should increasingly be responsible for openly reporting their pollutant discharge and environmental information; that public participation channels need to be activated, and that the environmental public interest litigation system should be improved. Finally, the Outline recommends the audit of environmental protection responsibilities of leading officials.

b) Production, living and ecological plans should be coordinated for urban development.

In December 2015, a Central Urban Work Conference was convened 37 years after the question of "urban work" was, for the first time, elevated to the central level for targeted research and action. The conference clarified the spatial plans and functional orientation of urban development. Urban agglomerations should be integrated into a scientifically designed urban plan to ensure urban spaces are compact, densely used, and efficient in terms of green development. It is necessary to develop a number of urban areas and central regional cities in China's central and western regions while optimizing and upgrading eastern cities. Taking into account resources and regional advantages, cities should determine their leading industries, those that make up a region's character, and strengthen industrial cooperation and collaboration, especially between large, small, and medium-sized cities and towns. Urbanization must be synchronized with agricultural modernization and keep pace with agriculture, rural society and agricultural industries, generating a new pattern of integrated urban and rural development. Production, livelihoods and ecology need to be coordinated in order to improve the livability of cities, and a sound understanding of the linkages among those components if required in order to put into effect regional plans that promote densification, livability, affordability, environment and resource efficiency. Green, circular,

and low-carbon development should be built into the planning and construction of urban infrastructure, including transportation, energy, water supply and drainage, heat, sewage and waste disposal.

c) Big Data planning for environmental protection

NDRC released on January 11, 2016 the Implementation Plan for the Three-Year "Internet+" Green Ecology Action, calling for the in-depth integration of the Internet and ecological civilization construction, the improvement of pollutant monitoring and information disclosure, the establishment of a dynamic monitoring network for resources and environment carrying capacity comprising the main ecological components, and the availability of interconnected, open and shared eco-environmental data. The document also advocates that there be full use of Internet platforms in reverse recovery logistics, that the trading and use of renewable resources be made more convenient, interactive and transparent. As a result of these measures, China will see a greening of production and consumption.

The *Implementation Plan* contains three major initiatives.

- The first is to strengthen the dynamic monitoring of resources and environment, joining hands with local governments to establish a database for the monitoring and early warning of resources and environment as well as information sharing platform; formulate the Internet+ *Forestry Action Plan*; promote the monitoring of ecological redlines and the development of an ecological redlines map; and build a forest standard system corresponding to Internet+ Green Ecology.
- The second is to vigorously develop 'smart' environmental protection approaches, improve the online monitoring system of pollutants discharge making use of smart monitoring equipment and mobile technologies, increase the varieties of pollutants under monitoring, expand the scope of monitoring, and form a 24/7, all-weather and multi-level smart multi-source sensing system; strengthen the acquisition and handling of enterprise environmental credit data, and incorporate enterprise environmental credit records into the national aggregated credit information sharing and exchange platform; improve the information networking for environmental warning and risk monitoring, and improve the capability of preventing and dealing with key urgent risks incurred by heavy metals, hazardous wastes and hazardous chemicals. The last is to improve the system for recycling and online trading of waste resources, formulate the *Internet+ Resources Recycling Action Plan (2016-2020)*,

support the recycling industry's collection of information, analyze the data and monitor flows using the Internet of Things and Big Data, and popularize the new pattern of "Internet+" recycling.

In March 2016, MEP issued the Overall Plan for Big Data Construction for Eco-Environment, stressing that efforts should be made, with the focus on environmental quality improvement, to unify infrastructure construction, perform centralized management of data resources, promote the integration and interconnectivity of systems and the opening and sharing of data, facilitate business collaboration, and improve regulations, standards and data security systems. It is planned that after five years, the framework for an application platform, a management platform and an environmental protection cloud platform based on Big Data will be operational, and that it will be possible for integrated eco-environmental decisions to be made based on scientific evidence, with the capacity to monitor precisely the environment and provide convenient public services for citizens.

2 Ecosystem, Biodiversity and Resource Conservation

a) Complementary Ecological Redlining and Ecological Compensation Mechanisms have been implemented.

In May 2016, nine ministries and commissions including the National Development and Reform Commission (NDRC), the Ministry of Finance (MOF), the Ministry of Land and Resources (MLR) and the Ministry of Environmental Protection (MEP) released jointly the Guiding Opinions on Strengthening Resource, Environment and Ecological Redlining Control, proposing that "efforts be made to observe strictly the environmental red lines. Periodic and regional objectives for air, water and soil quality should be established in order to improve control of total pollutant discharge in each region and each industrial sector. Also advocated is the strict precautions that should be taken against emergent environmental incidents, focusing on the improvement of environmental quality, the protection of human health, and giving overall consideration to such factors as current conditions, economic and social development, technologies for pollution prevention and control, and linkages to local governments' compliance plans. Areas attaining minimum environmental standards should strive to further improve the environment, while those failing to meet standards should formulate plans to reach set standards as early as possible. In relation to air quality, local and regional air quality should improve or at least remain stable, in line with the Air Pollution

Prevention and Control Action Plan and for the primary purpose of attaining the levels set in the Ambient Air Quality Standards (GB3095-2012). Regarding water quality, for each region or watershed it should improve or at the very least not get worse, in line with the Water Pollution Prevention and Control Action Plan and the Opinions of the State Council on Applying the Strictest Water Resources Control System. As for soil quality, bottom-line indexes for agricultural soils should be established for such heavy metals as cadmium, mercury, arsenic, lead and chromium, as well as organic pollutants such as polycyclic aromatic hydrocarbons and petroleum hydrocarbons; the percentage of agricultural soils meeting quality standards should improve or at least not worsen, in accordance with state provisions for soil pollution prevention and control. Eligible regions should put the quality of contaminated land in cities and those polluted by industry or mining under bottom-line management.

In April 2016, the General Office of the State Council released the Opinions on Improving the Compensation Mechanism for Ecological Protection, the foremost ecological compensation policy document issued by the Chinese government. The Opinions outlines measures including: by the year 2020, people living in key areas where exploitation is prohibited in order to preserve ecological functions be covered by an eco-compensation mechanism, in line with the area's economic and social development; there should be notable progress achieved in the demonstration of trans-regional and cross-basin compensation pilot projects; a diversified compensation mechanism should be in draft stages; and a basic compensation system for ecological protection consistent with China's conditions should be established, with impetus given to the formation of green modes of production and livelihoods. In addition, the Opinions contains detailed measures and accountabilities for implementing ecological compensation for the conservation of forests, grasslands, wetlands, deserts, oceans, rivers and cultivated land. The document describes institutional and operational innovations, to designate and implement red lines and formulating eco-compensation policies and related matters including central funding sources, cross-regional arrangements, industrial transfers, capacity building, park development and the setup of pilot projects.

b) The reform of the environmental damage compensation system solves the conundrum of "enterprises pollute, people suffer, and the government pays".

In December 2015, the General Office of the CPC Central Committee and the General Office of the State Council issued the *Plan for Pilot Projects on Reforming the Environmental*

Damage Compensation System, supporting the selection of provinces to test these reforms between 2015 and 2017. Once refined, the system would be tried nationwide in 2018. Efforts will be needed to clearly outline responsibilities, remove roadblocks, adopt standard tools and approaches, put in robust safeguards, start to roll out the compensation scheme and ensure the new system is operational across China by 2020.

The compensation system should be applicable to the loss of ecological function due to environmental pollution and ecological damage. The Plan stipulates that the compensation should cover the costs of decontamination, remediation, rehabilitation, replacement, investigation, appraisal and other reasonable expenses. Pilot regions may put forward suggestions for detailed scope of compensation according to circumstances. There will also be incentives for pilot regions willing to carry out exploratory researches and practices in environmental health damage compensation.

The Plan also describes accountabilities and responsibilities for eco-compensation. Any unit or person that violates laws and regulations and causes environmental damage should be responsible for compensation. Authorized by the State Council, provincial governments of the pilot regions will be responsible for compensation under their respective administration.

To implement this *Plan*, MEP published the *Technical Guidelines for Identification and Assessment of Environmental Damage: General Program* and the *Technical Guidelines for Identification and Assessment of Environmental Damage: Damage Investigation* in June 2016.

The central government's *Plan* highlights the fact that the state is the owner of natural resources as established by the *Constitution*, the *Property Law* and other relevant laws, and that China is now enforcing through the Rule of Law. Provincial governments may either claim for compensation against those who destroy the environment, or cooperate with civil society organizations' environmental litigations to exercise the "damage accountability" principle as specified in the new *Environmental Protection Law*.

In June 2016, the *General Principles of the Civil Law of the People's Republic of China (Draft)* was deliberated for the first time at the 21st Session of the 12th Standing Committee of the National People's Congress. It makes mention of "environmental remediation", as another way to bear the responsibility for environmental pollution and ecological damage.

According to Article 160, civil liabilities may be borne through: … (V) rehabilitation, and environmental remediation.

c) Natural resources balance sheets are the foundation of accountability and compensation.

In November 2015, the General Office of the State Council issued the *Pilot Plan for Preparing Natural Resources Balance Sheets*. The methodology involves accounting for land, timber, and water resources. A land balance sheet for example tallies upland use for cultivation, woodland and grassland, while taking into account land quality. A timber balance sheet includes the stock volume and the stock volume per unit area of natural, man-made and other forests. A water balance sheet inventories volumes and purity of surface and ground water. The pilot project aims to support a survey of natural resources, based on a sound, scientific and normative system. In such a manner, China could assess current status of its natural resource assets, and with this baseline be able to monitor, provide early warning and decision support for protecting and using sustainably its natural resources. In the meantime, natural resources balance sheets could be incorporated into the ecological civilization system and linked to other systems such as resources, ecosystems and environmental red lines, control of ownership and use of natural resource assets, audit of natural resource assets for leading cadres and investigation of responsibilities for ecological and environmental nuisance.

d) The amendment to the Wild Animal Protection Law targets the welfare of wild animals.

In July 2016, the Standing Committee of the National People's Congress approved the revised *Wild Animal Protection La*w, the first major amendment to a 1988 statute. Article 26 of the amended law specifies that "wild animals shall not be ill-treated" and also contains substantive protection of animal welfare, such as: "the breeding of wild animals covered by national priority protection…shall ensure their access to necessary space for living and activity, fostering good breeding and health conditions, maintain the sites, facilities and techniques corresponding to breeding objectives, species and development, and comply with applicable technical standards and epidemic prevention requirements". In the amended statute, "wild animal conservation" has been changed to "protection of wild animals and their habitats", in recognition of the holistic nature of what needs to be protected. It requests that impacts on wild animals' habitats and migrating channels be demonstrated in the formulation of plans; remedial measures be adopted during the construction of railways and bridges as

they may destroy the habitats and migrating channels of some wild animals; state forestry administration departments need to ascertain and release their directory of important habitats of wild animals.

3 Energy, Environment and Climate

a) Efforts are made to optimize the energy mix and increase the proportion of renewable energy.

In March 2016, NDRC and the National Energy Administration (NEA) released the N*otice on Promoting the Orderly Development of Coal Power in China*, proposing to "exercise strict control over the additional increases of coal power in all regions", and not to approve new coal power construction in provinces with electricity surplus. In provinces with an electricity gap, priority should be given to the development of local non-fossil energy generation projects, with the intent to use trans-provincial energy transfers and other demand-side management approaches that could curtail the demand for new coal-fired generating plants. Thermal power generators that have gone through many years of service and are not energy efficient, safe or environmentally sound should be phased out, and condensing units below 300,000 kilowatts which have operated for at least 20 years, as well as condensation extractors for thermal power plants that have operated for 25 years or more should be shut down.

In May 2016, eight ministries and commissions, including NDRC, NEA, MOF and MEP, released the *Guiding Opinions on Promoting Electric Energy Substitution*, proposing to: improve the policies ruling electric energy substitution; establish a standardized and orderly operation and supervision mechanism; and build a new energy-saving, environment-friendly, convenient, efficient, technically feasible and heavily subscribed electricity consumption market. Between 2016 and 2020, electric power will be substituted for some 130 million tons of dispersed coal and fuel, which should drive an increase of 1.9% in the electricity generation-to-coal consumption rate and of 1.5% in the electric energy-to-terminal energy consumption rate, allowing non-coal electricity generation to reach approximately 27%.

Also in March 2016, NDRC and NEA promulgated the *Energy Technology Revolutionary Innovation Action Plan (2016-2030).* The objective of the plan is that by 2020, China should see a significant improvement in independent energy innovation, with major breakthroughs in key technologies and a decrease in foreign dependence for energy

technology and equipment, key components and materials. Thus, China will be more competitive in this sector. By the year 2030, a sound energy technology innovation system will be in place, with a capacity to support coordinated and sustainable development of China's energy industry. By then, China should be among the global powers in energy technology. The Action Plan also includes a *Roadmap of Key Innovation Actions for Energy Technology Revolution*, putting forward innovative objectives for 2020, 2030 and 2050 respectively.

b) The foundation for a national carbon market is in place.

In January 2016, NDRC issued the *Notice on Effectively Conducting the Key Work for Launching the National Carbon Emission Permit Trading Market*, requesting that local governments tap into market mechanisms to allocate GHG emissions, in line with the government's economic system reform and ecological civilization, as well as targets to control GHG emissions and achieve low-carbon development. The document posits that the central government, local authorities and enterprises should join forces to facilitate the construction of the national carbon market, to ensure that a carbon emissions permit trading mechanism be launched nationwide and that the necessary regulations be in place starting in 2017. At the first stage, the national carbon market will cover such key sectors as petrochemicals, chemical engineering, building materials, steel, nonferrous metals, paper, electric power and aviation. Participants could include any business or independent accounting firm whose business involves the sectors listed, and which total energy consumption was 10,000 tons of standard coal equivalents or above for any year between 2013 and 2015. Moreover, NDRC requires local governments to audit, report on and inspect the historical carbon emissions of enterprises registered in the carbon trading system.

To ensure the smooth operation of these trading platforms, fourteen ministries and commissions including NDRC, the Ministry of Industry and Information Technology (MIIT) and MOF formulated jointly the *Interim Measures for Management of Public Resources Trading Platforms* in June 2016.

In February 2016, NDRC and the Ministry of Housing and Urban-Rural Development (MOHURD) released jointly a *Work Plan for the Pilot Construction of Climate Resilient Cities*, proposing to incorporate climate resilience indexes into the urban-rural planning

system, construction plans and industrial development plans, build 30 climate-resilient pilot cities, improve average cities' climate-resilient management and raise awareness of green buildings to 50% by the year 2020. The document wants to support greater dissemination of scientific knowledge on climate change adaptation, make cities capable of dealing with waterlogging, drought, water shortages, high temperatures, heatwaves, strong winds and ice storms, as well as improving their overall resilience to climate change by 2030.

4 Environmental Governance and the Rule of Law

a) ***The Central Environmental Protection Inspection Teams promote greater accountability of party committees and governments and accountability for dereliction of duty.***

The Central Environmental Protection Inspection Teams work to further ensure that both CPC committees and governments are held accountable, officials take responsibility for workplace safety and those who fail to uphold safety standards are held accountable.

The central pilot environmental protection inspection was carried out in Hebei Province from December 31, 2015 to February 4, 2016 in accordance with the *Environmental Protection Supervision Plan (Trial Implementation)*. The inspection team criticized harshly environmental protection in Hebei, stating that the "former leadership of the CPC Committee in Hebei Province had neither attached importance to, nor worked seriously on, environmental protection between 2013 and July 2015" [1]. This caused dismay in Hebei Province and throughout the nation. Up to April 8, 2016, Hebei Province had closed down and banned 200 enterprises that had broken environmental laws, put on record and punished 125 cases, held 123 people under administrative detention, had administrative interviews with 65 people, circulated a notice of criticism against 60 officials and investigated the responsibility of 366 individuals when investigating and dealing with the environmental issues assigned by the inspection team.[2]

The first group of eight central environmental protection inspection teams were responsible for the investigations in Inner Mongolia, Heilongjiang, Jiangsu, Jiangxi, Henan, Guangxi, Yunnan and Ningxia respectively. In one month, they generated an avalanche of formal notices related to pollution control. As of August 19, 2016, over 2,000 leaders and managers

of the CPC and government organs in the eight provinces and regions have been held accountable and most of them have received Party or policy disciplinary punishments. [3]

b) Judiciary bodies contribute to ecological progress and green development.

In May 2016, the Supreme People's Court (SPC) published the *Opinions on Giving Full Play to the Functions of Trials and Providing Judicial Service and Safeguard and for Promoting Ecological Civilization Construction and Green Development*. It proposes to "explore actively judicial countermeasures against climate change and promote the building of a national system tackling and governing climate change". The document requires judicial authorities at all levels to "hear carbon emission-related cases according to the law; conduct in-depth research on legal issues related to carbon trading, settle carbon trading disputes, and promote the construction of a national carbon market; hear cases involving electric power generation, steel, building materials and chemicals, in such fields as industry, energy, construction and transportation. The judiciary is expected to facilitate low-carbon development by applying the appropriate laws, administrative regulations, rules and environmental standards concerning energy conservation and emission reduction".

c) The national pilot zones explore the path and provide experience for ecological civilization construction.

The CPC Central Committee and the State Council released the *Opinions on Establishing Unified and Standard National Ecological Civilization Pilot Zones* and the *Implementation Plan for National Ecological Civilization Pilot Zones (in Fujian)*, in an effort to explore options and gain policy experience.

The first group of pilot zones for ecological civilization includes the provinces of Fujian, Jiangxi and Guizhou. Through experiment and exploration, progress can be made in the key tasks pertaining to ecological civilization, with concrete achievements by 2017. The pilot zones will lead in building a sound ecological civilization system, demonstrate what can be achieved and can then be duplicated and popularized across China. There are expectations of significant progress in the efficient use of resources, cleanup of the environment, and in the quality of and benefits from development. The intent is to demonstrate the win-win between socio-economic development and environmental protection, where there can be harmony between man and nature. This demonstrates a powerful institutional commitment to

[3] "The First Group of Eight Provinces and Regions Covered by the Central Environmental Inspection May Receive a Fine more than 100 Million RMB", available on Economic Information Daily, August 22, 2016.

accelerate ecological civilization, realize green development and build a beautiful China by the year 2020.

According to the *Opinions*, without the approval of the CPC Central Committee and the State Council, government organs shall neither establish nor replicate any pilot, demonstration or other similar project and designate them "ecological civilization"; all ecological civilization pilot and demonstration project that have been started shall end on time, no later than the year 2020.

As an important ecological zone in South China, Fujian province is well positioned to take the lead in this pilot, because it has been implementing its own eco-province strategy for years, with useful attempts made to innovate in this area. The *Implementation Plan* allows for Fujian to become a test site for scientific land use management the realization of ecological products' value, the reform in environmental governance system and the assessment of China's green development. It is hoped that by 2017, there will be preliminary results which can be duplicated and scaled up, so that by 2020, China will possess an effective ecological civilization governance system.

d) MEP establishes Departments for Water, Air and Soil Environmental Management to address major pollution problems.

MEP has gone through institutional reform to strengthen the prevention and control of air, water and soil pollution, establishing three new departments: Water, Air and Soil Environmental Management, In February 2015, the State Commission Office of Public Sector Reform (SCOPSR) approved MEP's plan to eliminate its departments of Pollution Prevention and Control and of Total Pollutant Discharge Control, and establish the three new departments. Basing the administrative responsibilities on these components of the environment allows for better clarity of accountabilities and responsibilities internally. The objective is to enhance operational efficiency, to ensure all important environmental functions are covered, and to manage the environment by targeting defined air, water and soil quality metrics.[4]

[4] "The Ministry of Environmental Protection Notifies the Organization of the Department of Water Environmental Management, Department of Air Environmental Management and Department of Soil Environmental Management", available on the website of the Ministry of Environmental Protection, http://www.mep.gov.cn/gkml/hbb/qt/201606/t20160613_354395.htm, last update: August 18, 2016.

e) Pilot project is launched to test the vertical management of environmental monitoring, surveillance and enforcement.

Issued in September, the *Guiding Opinions on the Pilot Reform of Vertical Management System for Environmental Protection Departments below the Provincial Level Concerning Environmental Monitoring, Supervision and Law Enforcement* lists the following objectives:

(1) To strengthen the environmental protection responsibilities of local party committees and governments and relevant departments. The document emphasizes that provincial-level authorities which report to the central government are to oversee the comprehensive surveillance and management of environmental protection, define the responsibilities of relevant departments and develop the list of accountabilities;

(2) To fine-tune local environmental protection management. Municipal environmental protection bureaus (EPB) report to both provincial EPBs and their own municipal governments. They manage and direct county environmental work in their area, and are responsible for budgets for staff and operations. County-level bureaus will now be under the direct management of municipal EPBs. Provincial EPBs will now oversee municipal and county-level bureaus, and will be responsible for monitoring, investigations, evaluations and assessments of the provinces' environmental performance;

(3) To standardize and strengthen local EPBs organizations and staff classifications. These local EPBs are gradually transformed into administrative units integrated into the administrative system, in combination with the reform of institutional system and classified reform of public institutions;

(4) To ensure operations are sound and efficient. The document states it is necessary to strengthen cross-regional and inter-basin environmental management, establish a robust environmental protection coordination mechanism to strengthen collaboration between EPBs and other departments, and share information about environmental monitoring and enforcement.

f) Making the environmental impact assessment system more effective.

MEP formulated the *Measures for Administration of Post Environmental Impact Assessment for Construction Projects (for Trial Implementation)* and the *Measures for Administration of Regional Restricted Approval of Environmental Impact Assessment for Construction Projects (for Trial Implementation)* in December 2015.

The revised *Environmental Impact Assessment Law,* approved by the Standing Committee of the National People's Congress in July 2016, came into effect September 1, 2016. The

revision streamlines administration and delegates' power to lower administrative levels, and intensifies enforcement of the law. It also eliminates a priori approval of EIAs for construction projects, stipulating that an EIA approval needs to be sought along with other approvals, but that it must be obtained before construction starts. The new *Measures* eliminates a regulation stipulating that "any construction project involving water and soil conservation must have a water and soil conservation plan approved by water administration departments"; it revokes the "preliminary review" of competent departments of the corresponding sectors; it enhances EIA planning, requiring government organs that formulate specialized plans to justify their adoption or rejection of an EIA report conclusion,. The document allows for more severe penalties for unlawful acts, and cancels the criticized "EIA makeup" regulation. As for construction projects that proceed without EIA approval, environmental protection departments at municipal level and beyond will have the authority to stop the construction and to impose a fine of 1% to 5% of the total cost of the project, depending on the severity of the breach and its environmental consequences; restoration may be ordered as well.

In July 2016, MEP released the *Implementation Plan for the Environmental Impact Assessment Reform during the 13th Five-Year Plan*, with objectives that "top design of strategic and planned environmental impact assessment should be improved further, environmental impact assessment should be binding and its warning system should take initial shape". Efforts should be made to perform EIAs at depth, complete the EIA of the Beijing-Tianjin-Hebei Region, the Yangtze River Delta and the Pearl River Delta strategies, and organize and carry out an EIA on the Yangtze River Economic Zone and the "One Belt, One Road" initiative. Efforts should also be made to "implement pilot regional environmental impact warning; rough estimation and early warning of regional environmental capacity, with the aim to improve environmental quality; environmental impact warning for the Yangtze River Economic Zone and the concerted development of Beijing, Tianjin and Hebei; pilot resource and environmental bearing warning for typical key development areas and optimized development areas; and spatial red-line warning for typical exploitation-restricted areas and exploitation-prohibited areas".

g) The environmental credit system for enterprises lays the groundwork for differentiated management.

In December 2015, MEP and NDRC jointly published the *Guiding Opinions on Strengthening the Construction of the Enterprise Environmental Credit System*, requesting

that by the year 2020, this credit system be in place, environmental credit records be established, an information system covering the state, provinces, cities and counties be set up, an incentive and penalty mechanism for environmental credits be in operation and that enterprises' awareness and capacity in terms of environmental credits be widespread.

Jiangsu Province released in December 2015 the *Notice on the Issues Concerning the Trial Implementation of Differential Electricity Prices according to Environmental Credit Rating*, putting into practice a differentiated electricity price policy against heavily polluting enterprises which get a "red" or "black" result in the annual environmental credit rating. To be specific, 0.05 RMB/ kWh shall be added to the current electricity price for "red" enterprises and 0.1 RMB/ kWh shall be added for "black" enterprises. Jiangsu Province then issued in February 2016 the *Notice on Issuing the Implementation Measures of Jiangsu Province for the Collection, Use and Management of Sewage Treatment Fees*, encouraging eligible regions to set up different sewage treatment fee standards according to the enterprise environmental credit rating. This implies that a surcharge of 0.6 RMB/m^3 and 1.0 RMB/m^3 will be added to the sewage treatment fees for "red" and "black" enterprises respectively; the higher surcharge will be levied also on enterprises that are assessed "red" for two consecutive years or more.

h) The reform of resources and environmental taxes is helping to optimize production and consumption

In May 2016, MOF and the State Administration of Taxation (SAT) released the *Notice on Comprehensively Promoting Resources Tax Reform* and the *Interim Measures for the Pilot Reform of the Water Resources Tax*, signaling the comprehensive reform of resource taxes by July 1, 2017. The resources tax reform involves moving from quantity-based tax assessments to a price-based system, which demonstrates that the Chinese Government is starting to incorporate environmental costs into resources pricing.

In the meantime, MOF and SAT have launched a water resources tax reform pilot project, starting first with Hebei province. In Hebei, there is already a trial involving the collection of a water resources tax, whereby the traditional surface and groundwater user fees are converted into a tax, assessed at a minimum charge of 0.4 RMB/ m^3 for surface water and 1.5 RMB/ m^3 for ground water. Higher rates are charged to water-intensive industries, to entities that go beyond their water allotments, to those siphoning ground water from areas where

reserves are shrinking; on the other hand, water levies have not increased for households or for enterprises that use 'normal' water volumes.

On August 29, the *Draft Environmental Protection Tax Law* was submitted to the NPC Standing Committee. It is the first single-line tax law, and one which is seen as meeting the legal requirements laid out by the 3rd Plenary Session of the 18th CPC Central Committee in the *Legislation Law*. The law mandates the collection of sewage charges and will reduce the efforts required for collection. Other areas covered include an environmental protection tax and the link between environmental departments and tax departments in the collection process.

i) Greening consumption and lifestyle entails public participation in the green transition process.

In November 2015, MEP published the *Implementation Opinions on Accelerating the Greening of Lifestyles*. The document indicates that by the year 2020, the concept of ecological civilization will be embraced by China's population, that the adoption of green lifestyles will be widespread, and that a system of policies, laws and regulations supporting green lifestyles will be in place. It is expected that by then, green products and services will be widely available, and people will be well acquainted with this way of living, that they will be diligent and thrifty in their adherence to both lifestyles and consumption patterns that are green, low-carbon, civilized and healthy. Essentially, ecological civilization will be the norm.

In February 2016, NDRC, the CPC Central Committee's Propaganda Department and the Ministry of Science and Technology (MOST) published jointly their *Guiding Opinions on Promoting Green Consumption*, signaling acceleration in the transition towards green consumption, in line with green development concepts and socialist core values. There is to be an increase in public information and education to spread what it means to lead a green lifestyle, be diligent and thrifty, and to be a 'green consumer'. Standards of green consumption will be issued to guide the population. The document mentions the need to tighten up production and market access while increasing the supply of green consumption goods. There is also mention of continuous policy improvements and of incentives to promote green consumption. The document states that by 2020, there will be consensus behind green consumption, that systems will be in place to support it, and that waste and extravagance will be constrained. It is anticipated that by then, there will be a

predominance of green products on offer in the market, leading to ways of life and modes of consumption that are green, thrifty, low-carbon and healthy.

j) Green finance and green supply chains accelerate the greening of enterprises.

In August 2016, the *Guiding Opinions on Building the Green Financial System* was issued by seven ministries including MEP and the People's Bank of China, in order to mobilize greater social capital into green industry while suppressing polluting investments. The green financial system encompasses green credit, green bonds, green stock index and related instruments, green development funds, green insurance and carbon finance, and other related policies. The document supports local development of green finance and proposes to integrate environmentally beneficial projects into a green project inventory, also listing them in a national asset trading center in an effort to create various financing arrangements. It also calls for efforts to promote international cooperation in green finance, improve overseas green investments and environmental information disclosure, and explore the use of environmental pollution liability insurance and other tools for environmental risk management.

Initiated by China, the G20 Green Finance Study Group was set up and the *G20 Green Finance Synthesis Report* issued at the G20 Hangzhou Summit, putting the green finance industry on the agenda for the first time.

NDRC released the *Guidelines for the Issuance of Green Bonds* on December 31, 2015. Green bonds are corporate bonds that raise funds to support energy conservation and emissions reduction technology transformation, green urbanization, clean and efficient energy use, new energy development and adoption, the development of a circular economy, conservation of water resources and development and utilization of unconventional water resources, pollution control, ecological agriculture and forestry, energy conservation and environmental protection industry, low-carbon industry, advance demonstration and experiment of ecological civilization, low-carbon pilot demonstrations and other green, circular and low-carbon development projects. Enterprises issuing green bonds benefit from favorable conditions, according to the document.

On June 20, 2016, MIIT released the *Green Industry Development Plan (2016-2020)*, proposing to promote green manufacturing through green supply chain. In August, MIIT, NDRC, MOST and MOF released the *Green Manufacturing Engineering Guide (2016-2020)*

which aims to build by 2020, a green supply chain management system in key industries. In addition, the document aims to encourage and promote green supply chains in enterprises.

5 Pollution Prevention, Control and Mitigation

a) The mid-stage assessment of large-scale pollution control actions shows an overall improvement in air quality

The Chinese Academy of Engineering (CAE) conducted a mid-stage assessment of the implementation of the *Air Pollution Prevention and Control Action Plan* in December 2015. According to the report, China's urban air quality generally improved between 2013 and 2015, with dropping concentrations of various pollutants year on year, and significantly fewer days with serious and heavy pollution, thanks to the implementation of the *Air Pollution Prevention and Control Action Plan*. However, air quality still faces serious challenges. The pollution of fine particulate matters in winter is prominent and ozone pollution in summer is picking up.[5]

b) Water quality is of concern in the guiding opinions on environmental pollution prevention and control in the Yangtze River 'Golden Waterway'.

In February 2016, NDRC and MEP released the *Notice on Strengthening Environmental Pollution Prevention, Control and Governance of the Yangtze River Golden Waterway*, putting environmental restoration of the Yangtze River uppermost and proposing to control water pollution, and to protect and restore ecological zones of the Yangtze River through zoning, optimizing industrial structures, strengthening source treatment and emphasizing risk prevention and control, with the focus squarely on improving the quality of the aquatic environment. By the year 2017, the water quality along the Yangtze River Economic Corridor is to improve; total discharge of main pollutants will continue to drop; and the system of environmental risk prevention and control of hazardous chemicals will be in place. By the year 2020, water quality in the Yangtze corridor will continue to improve, over 75% of the river's water will surpass Grade III, and water quality in the river's main tributaries will remain stable. The document supports ongoing improvement of guaranteed drinking

[5]"Clear up Prominent Problems, Put forward Corresponding Suggestions—An Interpretation on the Mid-stage Assessment for the Implementation of the *Air Pollution Prevention and Control Action Plan*", available on the website of the Ministry of Environmental Protection, http://www.zhb.gov.cn/xxgk/zcfgjd/201607/t20160706_357206.shtml, last update: August 5, 2016.

water safety, with 97% of centralized drinking water sources for cities at or above prefectural level will reach or surpass Grade III. Water quality in the Three Gorges Reservoir will further improve and eutrophication will be controlled in the important lakes of the system such as Taihu Lake.

c) Implementation of the Soil Pollution Prevention and Control Action Plan

The State Council issued the *Soil Pollution Prevention and Control Action Plan* in May 2016, when the action plans targeting air, water and soil pollution had all been promulgated.

The *Action Plan* embodies the principles of 'prevention first', prioritization and risk management. It highlights critical areas, industries and pollutants, advocates for governance based on classification, utilization and staging, proposes strict control over new or increased pollution sources, and supports the phasing out of industrial polluters. The document also proposes the formation a government-led soil pollution control system where enterprises are held accountable, there is public engagement in surveillance, and where the sustainable use of soil resources is promoted. This vision of soils as an integral part of a healthy environment puts the accent on improving the quality of soils in order to ensure the quality of agricultural products and the safety of human settlements.

The document outlines the following as work objectives: By the year 2020, soil pollution will be contained, soil quality will for the most part remain stable, soil quality safeguards will be in place, and risk factors will be under control. By the year 2030, soil quality will see an improving trend, farming and housing lands will be safe, and risks will be fully mitigated. By the year 2050, soils will be of sound quality and a 'virtuous cycle' of clean soils in clean ecosystems will be in place.

The key targets set for implementation are: by 2020, 90% of the land for cultivation and for development must be of sound quality; by 2030, the ratio must reach 95% or better.

The document stresses how fundamental soils are to the quality of farm products and human health, and that the priority must be put on land for farming and residential development. It advocates a management of lands based on a classification system that takes into account the severity of the contamination, with priority protection afforded to soils that are not yet severely affected. Lightly or moderately contaminated soils should be used safely, while severely contaminated soils should be strictly controlled. Some measures proposed include

setting up a registry of soils, with thorough inventory of contaminated sites and strict controls over access to and use of these lands.

It is recognized that implementation of the *Action Plan* represents a key strategic tool for improving environmental quality, demonstrating that China has entered the final phase of pollution control, thus ensuring ecological safety and food security.

d) Regional and Global Engagement

On October 31, 2015, China, Brazil, India and South Africa released in Beijing the *Joint Statement Issued at the Conclusion of the 21st BASIC Ministerial Meeting on Climate Change*, declaring their unequivocal commitment towards a successful outcome at the Paris Climate Change Conference through a transparent, inclusive process.

On November 30, 2015, President Xi Jinping addressed the Paris Conference on Climate Change in a speech entitled "*Working Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change*". He stated that China has always been proactive in combating climate change, and is sincere and determined to contribute to a successful Paris Conference on Climate Change. He said the Chinese government is committed to South-South cooperation on climate change, with China supporting developing countries, especially the least developed, landlocked and small island developing countries, to address climate change challenges. China announced the creation of a RMB 20 billion South-South Climate Cooperation Fund in September 2015, and will fund 10 low-carbon demonstration areas and 100 climate change mitigation and resilience projects, in addition to a climate change training program for 1,000 people in 2016. China will continue international cooperation efforts in the areas of clean energy, disaster prevention and mitigation, ecological protection, climate-resilient agriculture and construction of low-carbon 'smart' cities.[6]

Also in March 2016, China and the U.S. published the *U.S.-China Joint Presidential Statement on Climate Change*, committing to specific steps to join the *Paris Agreement*. Both countries also encouraged other parties to the *United Nations Framework Convention on Climate Change* to do so, with a view to bringing the *Paris Agreement* in force as early as

[6] Xi Jinping: Work Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change—Address at the Opening Ceremony of the Paris Conference on Climate Change, available on people.cn, http://politics.people.com.cn/n/2015/1201/c1024-27873625.html, last update: August 19, 2016.

possible. The two presidents promised further action to implement the *Paris Agreement* and eliminate climate threats.

On April 22, 2016 coinciding with World Earth Day, China signed the Paris Agreement at the UN headquarters, giving the international community a positive and powerful sign of the willingness to work together with countries to address global warming. On September 3, 2016, the eve of the G20 Hangzhou Summit, the NPC Standing Committee approved China's accession to the Paris Agreement.

In October 2016, the 28th Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer was held in Kigali, Rwanda, reaching a historic consensus on reducing the use of hydrofluorocarbons (HFCs). As co-chair of the conference, China made great efforts bridging differences and forging a consensus.

II CCICED Policy Recommendations and their Implications

The report reviews the past year's laws, regulations, plans, policies, rules, opinions, and important leaders' speeches in seven fields related to environment and development. An overwhelming 80% of the concepts embodied in these documents have been the subject of CCICED policy recommendations over the past six years. Some important environmental management concepts, such as ecological compensation, have been suggested by CCICED over the decade and finally incorporated into policies in 2016. The table found in the Annex to this report links policy developments and CCICED recommendations. The implications of these findings are outlined below.

1 Planning for Environment and Development

In its 2015 policy recommendations, CCICED proposed a national macro-level strategic environmental risk assessment and prevention system and advocated that environmental risk assessments be conducted for major strategies, such as One Belt and One Road, Beijing-Tianjin-Hebei Integration and the Yangtze River Economic Corridor. The *Implementation Plan for Environmental Impact Assessment Reform During the 13th Five-Year Plan Period* stressed the need to improve designs for strategic and planning environmental impact assessments (EIA), complete the strategic EIA of the Beijing-Tianjin-Hebei region,

Yangtze River Delta, and Pearl River Delta, and organize the strategic EIA of the Yangtze River Economic Corridor and the Belt and Road Initiative.

Other suggestions include strengthening environmental science and technology innovation and establishing a national big data network, information system and environmental management platform, so as to enhance decision support capability for environmental governance.

The *Implementation Plan for the Three-Year "Internet+" Green Ecology Action Plan* calls for in-depth integration of the Internet with ecological civilization, green production and lifestyles with improvements in pollution monitoring and information dissemination. The idea is to, foster a dynamic monitoring network for resources and environmental carrying capacity encompassing the main ecosystem elements, let the Internet serve as a platform in the reverse logistics recovery system, and enhance facilitated, interactive and transparent use and trade of renewable resources. The *"Internet+" Resources Recycling Action Plan (2016-2020)* advocates the "Internet +" recycling model. Issued by MEP, the *Overall Plan for Big Data Construction for Eco-Environment* specifies the need to build the framework for an application, a management platform and an environmental protection cloud platform based on Big Data, and support evidence-based environmental decision-making, real-time monitoring of the environment and the provision of convenient public services. In addition, MFA released the *"Internet +" Forestry Action Plan*.

2 Ecosystem, Biodiversity and Resource Conservation

In 2005 and in subsequent years, the CCICED recommended that the Chinese Government introduce ecological compensation to more equitably allocate among those who benefit from, and those who pay for environmental protection policies and initiatives. For example, the Council advised China:

- "to establish a sound ecological compensation mechanism and explore an urban-rural integrated model of environmental governance to advance China's environmental protection cause" (2008);
- "to put in place ecological compensation mechanisms for marine and freshwater ecosystems" (2010);
- "to allocate the ecological compensation fund in accordance with the eco-functional zoning of China's eastern and middle-western regions" (2012); and

- “to set up ecological and pollution damage compensation mechanisms on the basis of an accounting of ecosystem services” (2013).

More specific recommendations have been made by CCICED in 2014, including accelerating and improving implementation of the ecological compensation system, adhering to the principle of "polluter pays, destroyer compensates, and protector benefits", and mobilizing local governments to protect the environment. The Council advocated for a long-term mechanism that considers land tenure and stakeholders, with direct payment of eco-compensation to landowners or operators of ecological redlined areas, and where major ecological restoration projects are assigned within red-lined zones. Ecological transfer payments take into account the scope and impact of the specific redline policy.

The *Opinions on Improving the Compensation Mechanism for Ecological Protection* formally establishes the ecological compensation system, with many of its provisions echoing CCICED recommendations.

The CCICED addressed ecological red lines in 2013 and the following year, called for ecological redlining legislation. Many CCICED recommendations are reflected in the *Guiding Opinions on Strengthening Resource, Environment and Ecological Redlining Control*. As the Council had advocated, the document states that resource, environment and ecological redlining controls should follow the concepts of resource carrying capacity (consumption ceiling), environmental quality bottom line, ecological protection red lines and inclusion of all kinds of economic and social activities into the constraints outlined for a specific red lined area.

3 Energy, Environment and Climate

In 2013, CCICED drew attention to coordination and synergies of programs and measures targeting energy efficiency, emissions reductions and climate change; it recommended long-term market-based mechanisms for price setting, taxation and emissions trading. In 2014, the Council suggested integrating the goals of tackling climate change and achieving peak carbon emissions as an important component of green transition; it recommended developing a green transition roadmap for the next 10 to 20 years to ensure emissions peak in 2030 or earlier in order to reach as soon as possible the turning point for comprehensive environmental improvements. It recommended accelerating the development and amendment

of emissions reduction laws and regulations, and to add climate change to the legislative agenda.

This is echoed in the 13th Five-Year Plan which states that "both mitigation and adaptation should be emphasized, and active efforts needed to control carbon emissions, fulfill emission reduction commitments, enhance climate change adaptation capacity and deepen engagement in global climate governance, so as to contribute to tackling global climate change".

The establishment of an emissions trading system was recommended in 2009 and 2011. Now, preparations are underway for China to have a national carbon market in 2017.. The *Notice on Effectively Conducting the Key Work for Launching the National Carbon Emission Permit Trading Market* requires the coordination of central and local governments and enterprises to ensure emissions trading can start nationwide on schedule.

In the area of adaptation, CCICED proposed in 2014 paying more attention to the capacity of cities to adapt by developing environmental plans and putting in place a risk assessment framework and corresponding financial emergency funds.. The government's *Work Plan for the Pilot Construction of Climate Resilient Cities* includes climate resilience indexes for urban-rural, construction and industrial development plans, so as to make cities resilient to flooding, drought, water shortages, high temperatures, heatwaves, wind and ice storms.

4 Environmental Governance and Rule of Law

The CCICED has focused on environmental governance and rule of law, with a large number of recommendations issued in this regard over the past years. The impact of this work can be seen in the following areas:

CCICED has highlighted the importance of environmental policy implementation and local environmental accountability over the years. For example, it suggested that:

- "the central government's role should be to monitor and coordinate implementation of the action plan on air pollution by local governments, and that it environmental accountabilities (2013)"; and
- "environmental impacts should be fully accounted for when government makes important decisions, and that government departments reporting to the State Council should be inspected, supervised and evaluated (2015)".

The *Environmental Protection Supervision Plan* (for trial implementation) further strengthens the requirements for dual responsibilities of the local party committees and governments, with accountability for dereliction of duty.

CCICED stressed in 2003 and 2006 the importance of institutional reform to address local protectionism and better implement environmental laws and policies at all administrative levels. The *Guiding Opinions on the Pilot Reform of Vertical Management System for Environmental Protection Departments below the Provincial Level Concerning Environmental Monitoring, Supervision and Law Enforcement* clearly spells out local administrative reforms, strengthening the environmental protection responsibilities of the local party committees and governments and their relevant departments. The document makes adjustments to local environmental protection management, strengthens local environmental protection agencies and personnel; and improves operational efficiencies.

With the ecological civilization pilot project, the CCICED recognized the importance of testing policy options at the local level, advocating that "The Central Government provide economic incentives to encourage demonstration areas at the local level" (2013) and "to accelerate institutional reform for ecological civilization through the establishment of a multi-party environmental governance system, creation of comprehensive experimental zones for green development and transition, and implementation of plans and actions for green transition and governance capacity building"(2015). The *Opinions on Establishing Unified and Standard National Ecological Civilization Pilot Zones* outlined ideas, regions and objectives for such demonstrations.

In 2016, there was significant progress in environmental economic policies and especially substantial advances in an environmental credit system, environmental finance, and environmental resources tax. In 2014, CCICED advocated green finance as a breakthrough innovation that would encourage financial institutions and enterprises to issue green bonds. In 2015, the Council recommended actions "to promote green credit, green bonds and green insurance". The *Guidelines for the Issuance of Green Bonds* provide a policy guarantee and also some preferential terms for enterprises to issue green bonds.

Since 2012, CCICED has recognized the importance of an environmental credit system to promote corporate compliance and improve environmental performance. In 2014, the Council recommended a corporate environmental credit rating system bet set up promptly, thereby encouraging enterprises that comply with emissions standards and improve their

environmental performance. In 2015, CCICED reissued this recommendation. The *Guiding Opinions on Strengthening the Construction of the Enterprise Environmental Credit System* outlines both goal and roadmap for setting up this kind of credit rating. The *Notice on the Issues Concerning the Trial Implementation of Differential Electricity Prices according to Environmental Credit Rating* creatively links the credit rating with disincentives, demonstrating its fundamental role.

Since 2011, green supply chains have been an important component of the CCICED's recommendations targeting the green transition of enterprises. The Council has championed green consumption and green manufacturing via green supply chains, and provided suggestions on how to support them. In 2011, this was the subject of a major policy research effort and in 2013, and the Council recommended the inclusion of green supply chains as a criterion for public procurement. In 2015, CCICED put forward the need for governments to adopt green procurement practices and to encourage leading enterprises to follow suit voluntarily. Over the past five years, green supply chains have grown rapidly in China. In November 2014, the 22nd APEC Economic Leaders' Meeting adopted the *Beijing Agenda: Building an Integrated, Innovative and Connected Asia Pacific* and agreed to establish the APEC Cooperation Network on Green Supply Chains. The following month, MOC, MEP and MIIT jointly issued the *Green Procurement Guidelines for Enterprises (Trial)*. In 2016, green supply chains with defined targets have been implemented by ministries and local governments and have promoted green consumption, green manufacturing and green industry. In Guangdong Province, green supply chains are considered an important component of supply-side reform.

CCICED recommended resources tax reform in 2014 and the next year, that pricing of important resources be reformed by incorporating environmental costs, starting with coal and petroleum. Further the Council advocated developing a green fiscal policy that reflects the environmental costs of production and consumption.

In terms of resources tax reform, specific recommendations were made in 2012, 2014, and 2015, including ad valorem taxation, integration of environmental costs, and mobilization of local initiatives to improve green development capacity. CCICED also called for the urgent introduction of environmental taxes in 2009, 2011, and 2012. These ideas are reflected in the *Notice on Comprehensively Promoting Resources Tax Reform*.

As early as in 2009, CCICED recommended the promotion of sustainable consumption patterns and low-carbon lifestyles, and the mobilization of the public and non-governmental organizations for green economic development. The Council has called for green lifestyles yearly since 2011, and in 2015 spelled out key steps towards sustainable consumption, namely "green diets, green clothing, green living and green travel." The *Implementation Opinions on Accelerating the Promotion of Lifestyle Greening* states that by 2020, the value of ecological civilization will be widely adopted, that citizens will have clear concepts of what green lifestyles entail, and that a preliminary system of policies, laws, and regulations will support this new way of life. The *Guiding Opinions on Promoting Green Consumption* also put forth a green consumption policy.

In 2015, CCICED recommended improving the legal framework for environmental protection, strengthening legal interpretation and improving judicial processes, in line with both the rule of law and the integrated reform plan for ecological progress.

China's environmental legislation has seen ongoing improvements this past year. Amendments were made to the *Environmental Impact Assessment Law* and the *Wildlife Protection Law* to adapt to new forms of environmental protection. In 2014, the Council recommended consolidation of all relevant policies, statutes and regulations into ecologically-oriented revisions of the civil law, economic law, criminal law and administrative law, with the basic principles of ecosystem management reflected in each statute. Still in 2015, CCICED suggested defining ecological civilization and establishing the principle of priority for prevention and sustainable use in the general provisions when the *Civil Code* is compiled. The *General Principles of the Civil Law of the People's Republic of China (Draft)* adds "rehabilitation and eco-environmental remediation", another way to bear the responsibility for environmental pollution and ecological damage, which marks a solid step forward towards an ecologically-oriented civil law.

In December 2015, MEP issued the *Measures for Administration of Post Environmental Impact Assessment for Construction Projects (for Trial Implementation)* and the *Measures for Administration of Regional Restricted Approval of Environmental Impact Assessment for Construction Projects (for Trial Implementation)*. In January 2016, NDRC unveiled the *Environmental Protection Supervision Plan (for Trial Implementation)* and MIIT, NDRC, MOST and other five ministries released the *Measures for Administration of Restricted Use of Hazardous Substances in Electrical and Electronic Products*. In February 2016, NDRC and AQSIQ revised the *Energy Efficiency Labeling Regulations* and the next month, MEP

developed the *Measures for Supervision and Management of Radioactive Material Transportation Safety*. All these documents complete the legislative framework for environmental protection.

5 Pollution Prevention, Control and Mitigation

In 2013, CCICED proposed that China "focus efforts on addressing prominent environmental issues such as air, water and soil pollution, in order to comprehensively meet the public's basic needs for good environmental quality." Since 2015, government departments at all levels have implemented the *Air Pollution Prevention and Control Action Plan* and the *Water Pollution Prevention and Control Action Plan.*

Still in 2013, CCICED recommended "building the system for preliminary assessment, annual assessment and final assessment for the implementation of the *Air Pollution Prevention and Control Action Plan* and improving the mechanism for regional joint air pollution prevention and control". In December 2015, the national air quality trends and pollution situation were assessed and confirmed using a variety of technical methods and official long-term datasets. The report indicates that with the implementation of the *Air Pollution Prevention and Control Action Plan*, urban air quality in China was improved for 2013-2015, with the concentration of pollutants reduced year by year, and severe pollution days reduced significantly. However, serious challenges remain, including serious winter fine particular matter pollution and rising summer ozone pollution.[7]

In 2015, CCICED suggested the establishment of national strategic environmental risk assessment and prevention system. Environmental risk assessment should be made for strategies such as "One Belt One Road", Beijing-Tianjin-Hebei Integration, and Yangtze River Economic Corridor to form an environmental risk prevention network. The *Notice on Strengthening Environmental Pollution Prevention, Control and Governance of the Yangtze River Golden Waterway* places environmental restoration of the Yangtze River in the forefront and proposes to comprehensively control water pollution, and to protect and restore

[7] "Clarify the Prominent Problems and Put Forward Targeted Recommendations -- Interpretation of the Mid-stage Assessment of Air Pollution Prevention and Control Action Plan", MEP website, http://www.zhb.gov.cn/xxgk/zcfgjd/201607/t20160706_357206.shtml, last accessed: August 5, 2016.

the Corridor's ecosystems by enforcing zoning, optimizing the industrial mix, strengthening waste treatment at source and emphasizing risk prevention and control.

CCICED has also conducted studies on soil pollution and made recommendations since 2011. It recommended that:

- a package of green programs and policy measures related to pollution prevention, energy and climate change, resource pricing, ecological compensation and environmental restoration be developed to address soil pollution in traditional industries and mining areas (2011);
- regular disclosure and update of information, including predictions of air, water and soil pollution threatening human health;
- and, appraisal of government officials' performance based on climate change impacts and adaptation (2014).

The *Soil Pollution Prevention and Control Law* is to be amended into the *Soil Environmental Protection Law,* reflecting legal concept changes (2015). In May 2016, the State Council officially released the *Soil Pollution Prevention and Control Action Plan,* highlighting the fact that there are now complete plans in place to address air, water and soil pollution, and that implementation of these plans is accelerating.

In order to strengthen the prevention and control of air, water and soil pollution, MEP undertook an institutional reform to tighten up responsibilities and accountabilities, improve work efficiency and ensure all management functions are covered in this regard.. The newly established departments of Water Environmental Management, Air Environmental Management and Soil Environmental Management have now clear purviews with definite performance targets.[8]

6 Regional and International Engagement

CCICED has long focused on climate change and made recommendations to the Chinese Government to address this. In 2015, the Council recommended China's green action for

[8] "MEP Informs the Establishment of New Departments for Water, Air and Soil Environmental Management", MEP website, http://www.mep.gov.cn/gkml/hbb/qt/201606/t20160613_354395.htm, last accessed: August 18, 2016.

foreign aid to strengthen South-South environmental cooperation and build a green, low-carbon, eco-friendly and growing “One Belt One Road”. The *Joint Statement Issued at the Conclusion of the 21st BASIC Ministerial Meeting on Climate Change* and the *U.S.-China Joint Presidential Statement on Climate Change* have enabled support for the *Paris Agreement*, demonstrating China's critical role in climate change adaptation and mitigation, and the importance of its involvement in international environmental governance.

III – SUMMARY OF POLICY HIGHLIGHTS FOR 2015-2016

The fingerprints of past CCICED policy recommendations can easily be detected in China's main policy initiatives in the area of environment and development over the past year. The Council has long advocated targeted and focused efforts to tackle air, water, and soil pollution, green economic policies, ecological legislation and an eco-compensation system, and these concepts can be seen in China's recent initiatives to promote ecological progress and to implement new environmental laws. There is now a solid foundation laid for future environmental policy development and environmental governance. It is now clear that China has boldly embarked upon what is often referred to as green transition.

First, ecological civilization construction has gradually evolved from a general concept to implementation and practice, with the introduction of key documents such as the "Integrated Reform Plan for Promoting Ecological Progress", "Opinions on Establishing Unified and Standard National Ecological Civilization Pilot Zones" and "Implementation Plan for National Ecological Civilization Pilot Zones (in Fujian)".

Secondly, supervision of all levels of governments with respect to their environmental performance has been tightened, with specific, tangible actions taken by the Central Government to ensure local governments fulfill their responsibilities. As a result, local governments have held polluters and responsible officials accountable, and remedial action promptly taken.

Thirdly, China's environmental pollution prevention and control system has reached a new level. Action plans are now in place to address air, water and soil pollution, and the Ministry of Environmental Protection has gone through reorganization in order to be more effective. The Chinese Government is responding more decisively to public demand for a healthy environment and is forcing a green transformation of the traditional economic and development paradigms.

Finally, China is now leveraging market forces to foster green development. Environmental protection depends on both the government and the market, which in turn is determined by producers and consumers. The government has introduced over this past year a series of economic incentives for enterprises such as green bonds, a corporate environmental credit rating, ad valorem resource taxation, and also a series of economic incentives which in turn

support the shift of consumers towards green consumption and green lifestyles. Clearly, China is increasingly relying on market forces to promote green development.

2016 is the first year of the 13th Five-Year Plan. There are now pilot programs well in place to road test the kind of systems that will promote ecological civilization and greater progress can be reasonably be expected over the next five years.

The influence of CCICED policy studies and recommendations, particularly those of the last decade, is palpable. Many policy recommendations have been fully incorporated into formal national policies and translated into national action plans.

It should be noted that the Chinese Government has taken decisive action this past year, in view of a rapidly changing global environment and development context, in some cases leapfrogging or going beyond the scope of the Council's advice. This is particularly evident in global platforms to address climate change. While this area has in past Phases been considered slightly outside the purview of the Council, it is expected that climate change mitigation and adaptation will become an important focus during Phase VI.

APPENDIX: Overview on the relevance of the New Policies and CCICED recommendations

Field	Policy Progress (2015-2016)	Time of Proposal	Content
Planning for Environment and Development			
Outline of the 13th Five-Year Plan	Achieve overall improvement in eco-environmental quality, and green and low-carbon improvements in modes of production and life, in pursuit of innovative, coordinated, green, open and shared development	2013	Study major environmental and development issues during the 13th Five-Year Plan period. In the mid-to-late 12th Five-Year Plan period, the Chinese Government should start to analyze the situation of economy, society, resources and environment during the13th Five-Year Plan period and develop medium and long-term targets and measures concerning green development, environmental protection, energy conservation and emission reduction in the next 5-10 years
	Establish the national space planning system and coordinate space planning based on main functional zoning planning to promote integrated planning.	2015	Incorporate environmental risk assessments into integrated planning
	Reform the fundamental system of environmental governance	2015	Speed up the reform for promoting ecological progress; improve the environmental legal system to provide a solid legal safeguard for green transition; reform the green financial system to promote green industrial transformation and upgrading; build a highly efficient system of environmental risk prevention and control to safeguard public health and ecological security.
	Establish the marine ecological redlining system	2012	Set ecological red lines for important ecological zones in areas restricted or/and prohibited from development, nature reserves, terrestrial and marine environmental sensitive areas and ecological fragile areas.

	Increase transfer payments to main agricultural producing areas and major ecological functional areas, and improve the basin-wide horizontal ecological compensation mechanism	2009	Take the development of green economy as an important way to promote the transformation of economic development patterns and formulate a national strategy for developing green economy as soon as possible while standing at the height of the Scientific Outlook for Development and promotion of ecological progress, and giving strategic consideration to strengthening the country's long-term global competitiveness
Central Urban Work Conference	Grasp the internal link among space for the three purposes to achieve intensive and efficient production space, livable and moderate living space, and clean and beautiful ecological space. Practice green, circular, and low-carbon development in the planning and construction of urban infrastructure, covering transportation, energy, water supply and drainage, heat, sewage and waste disposal.	2012	Develop region-specific sustainable urban development plans, and strive to form a new pattern of urban development in the eastern, central and western regions in a resource-conserving, environment-friendly and cost-effective, harmonious manner, in accordance with the principle of gradualness, land conservation, intensive development and rational distribution,.
		2013	Promote people oriented urbanization with respect for ecosystems, ecological services and green space; attach a high degree of attention to resource and environmental challenges in urbanization and explore the green urbanization model
		2014	Accelerate the implementation of new urbanization strategy, explore the ecological oriented urbanization model, and formulate and implement specific policies
	Respect the right of residents to know, participate in, supervise urban development decisions, and encourage the participation of enterprises and residents in urban construction and management in various ways, to truly achieve urban co-governance, co-management and co-construction, and shared urban development	2005	Establish multi-level government-private partnerships (PPPs) to improve urban transportation, strengthen environmental protection facilities, and promote the development of water, energy and material efficient buildings

		2013	Set up consumer consulting centers in cities, providing advisory services on recycling, product sharing, energy and water conservation, and food safety, in order to enhance the consumption awareness of the next generation.
Overall Plan for Big Data Construction for Eco-Environment	Build the framework for an application platform, a management platform and an environmental protection cloud platform based on Big Data, and achieve scientific integrated eco-environmental decisions, precisely monitored eco-environment and public services provided for public convenience	2015	Establish nationwide big data network, information system and environmental management platform for the ecological environment, so as to enhance information technology and decision support capability for environmental governance.
Implementation Plan for the Three-Year "Internet+" Green Ecology Action	Strengthen the dynamic monitoring of resources and environment, and join hands with local governments to establish a database for the monitoring and early warning of resources and environment as well as information sharing platform		
"Internet+" Forestry Action Plan			
"Internet+" Resources Recycling Action Plan (2016-2020)			

Ecosystem, Biodiversity and Resource Conservation			
Guiding Opinions on Strengthening Resource, Environment and Ecological Redlining Control	Resource, environment and ecological redlining control refers to the delineation and strict observance of resource consumption ceiling, environmental quality bottom line, ecological protection red line and inclusion of all kinds of economic and social activities into control of redlining constraints. Observe strictly the red line of environmental quality. Set up periodical and regional objectives of air, water and soil environment quality to enhance the control of total pollutants discharge for each region and each industrial sector and take strict precautions against emergent environmental incidents. Require areas attaining the environmental quality standard to further improve their environmental quality and those failing the standard to formulate relevant plans and attain the standard as early as possible	2014	Develop as soon as possible the Measures for Ecological Redlining Management that stipulate the definition and connotation of ecological protection redline, delineation methods and management system
		2013	strengthen redlining control on important and fragile ecosystems, environmental quality and risk control, and energy and resource consumption with serious ecological impact through the most stringent ecological and environmental management measures
		2014	Implement the national ecological redlining system: incorporate the national ecological redlining system and related systems into the legislation; perfect the spatial planning system for land and sea use, clearly define ecological red lines; renew the national coordination mechanism for ecological conservation, monitoring and law enforcement; perfect nature protected area system; perfect ecological compensation system and incentive mechanism based on ecological redlines.
Opinions on Improving the Compensation Mechanism for Ecological Protection	Implement, by 2020, the compensation mechanism for ecological protection to fully cover such key fields as forests, grassland, wetland, deserts, oceans, rivers and farmland and such important regions as exploitation-prohibited areas and key ecological functional areas;	2006	Introduce the ecological compensation mechanism to regulate the relationship between environmental interests and economic benefits
		2014	Accelerate and improve the ecological compensation system, with adherence to the principle of "polluter pays, destroyer compensates, and protector benefited", and mobilize the local governments to protect the environment, especially those with financial difficulties

	practice the principle that the one that benefits provides compensation; clearly define the rights and obligations of the protectors and the beneficiaries; designate and strictly observe ecological red lines and study and roll out ecological compensation policies. Further improve the ecological compensation mechanism for key areas, and build compensation standards on the output capacity of ecological products. Integrate ecological compensation with the main functional zoning, the western development strategy and poverty alleviation of poverty-stricken areas, and gradually improve the basic public service level in major ecological functional areas, to promote green development	2014	Establish a long-term mechanism for ecological compensation that considers both landowners and stakeholders, which supports direct payment of ecological compensation to landowners or operators of ecological redlined areas and deployment of major ecological construction projects with focus on ecological redlined areas
		2014	Perfect ecological compensation system and incentive mechanism based on ecological redlining system
		2013	Set up the ecological compensation and pollution damage compensation mechanism on the basis of accounting ecosystem services
		2012	allocate the ecological compensation fund combined with the eco-functional zoning of the eastern and middle-western regions
		2010	Establish financial mechanisms for construction projects and ecological compensation, providing stable financial support for ecological protection and restoration in the central and western regions
		2010	Speed up the legislative process of ecological compensation and establish and improve the public welfare compensation funds for forests, grasslands and wetlands. Under the framework of national ecological compensation, set adequate and reasonable budgets for the national nature reserves; gradually include afforestation into the scope of national ecological compensation; build ecological compensation mechanisms for the protection of marine and water ecosystems
		2009	Establish the ecological compensation system for coal mining and implement the bond system for environmental restoration
		2008	Establish and improve the ecological compensation mechanism, explore the urban and rural integrated model of environmental management to promote the overall advancement of China's environmental protection cause.

Plan for the Pilot Reform of the Ecological Environment Damage Compensation System	Stipulate that environmental damage compensation covers decontamination expenses, eco-environmental rehabilitation expenses, loss of service functions during eco-environmental rehabilitation, loss incurred by perpetual damage to eco-environmental functions and eco-environment damage compensation investigation, appraisement and other reasonable expenses. Establish a national unified system of technical specifications for environmental damage evaluation. Encourage social organizations that meet the defined requirements to carry out environmental damage compensation litigation	2009	Study and formulate relevant environmental standards and guidelines, including standards for pollution damage compensation
General Principles of the Civil Law of the People's Republic of China (Draft)	Add rehabilitation and eco-environmental remediation	2014	Improve the environment and health related systems. Incorporate environmental risk assessment into the formulation of environmental policies and standards. Improve the environmental public interest litigation system, strengthen the environmental damage compensation and accountability, and strengthen the responsibility and capability of judicial authorities to investigate environmental violations

		2013	Speed up the reform of environmental protection management system, establish regional linkage mechanisms for terrestrial and marine ecosystem conservation and restoration and pollution prevention and control; accelerate the amendment to the *Environmental Protection Law* which clearly defines the ownership and use rights of all kinds of natural resources assets and improves the system and mechanism for use control and management. Establish the accountability and compensation systems for resources and environmental damage and the system of compensated use of resources and the environment.
		2012	Establish a sound emergency response costs system and define that the accident causer bear the costs incurred in emergency response in the marine environmental damage compensation system
Pilot Plan for Preparing Balance Sheets of Natural Resources	Ascertain the situation of natural resource assets and its variation, to provide information foundation, monitoring, early warning and decision support for carrying forward ecological civilization construction and effectively protecting and sustainably utilizing natural resources	2012	The establishment of a green national economic accounting system is a fundamental reform measure conducive to green transformation of cadre performance evaluation system. The Central Government should continue to promote relevant research and accelerate the process of demonstration and application.
		2013	Organize the research on green national economy accounting, and gradually develop a methodology for integrating resource consumption, environmental damage and protection benefits into the national economic evaluation system.
		2010	Carry out research on ecosystem service valuation and green accounting, and incorporate into national economic accounting system and performance evaluation system.
Wild Animal Protection Law	Specify that “wild animals shall not be ill-treated” and change “wild animal conservation” into “protection over wild animals and their habitats”	2007	Curb activities prohibited under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
		1999	Strengthen biodiversity protection legislation and law enforcement, and take comprehensive measures to strengthen the management of biological resources and prevent the destruction and unreasonable use of wildlife resources

Energy, Environment and Climate			
Interim Measures for the Administration of Energy Audit for Public Institutions	Improve energy efficiency of public institutions and thereby cut fiscal expenditure		
Notice on Promoting the Orderly Development of Coal Power in China	Exercise strict control over the additional increases of coal power in all regions	2011	Incorporate climate change into the legislative agenda, develop and promulgate as soon as possible the *Energy Law* and amend the *Coal Law*, *Electric Power Law*, *Energy Conservation Law*, and *Renewable Energy Law* to further encourage clean and low-carbon energy development and utilization
Energy Technology Revolutionary Innovation Action Plan (2016-2030)	Achieve major breakthroughs in key technologies, covering energy safety, clean energy, and intelligent energy.	2000	Strengthen and perfect energy and environmental technology innovation and support system, and give high priority to energy policy
Guiding Opinions on Promoting Electric Energy Substitution	Improve the level of electrification to address the serious fog and haze problem caused by large-scale scattered coal and fuel oil consumption; substitute about 130 million tons of standard coal equivalents of dispersed coal and fuel oil by electric power in final consumption during 2016-2020.		

Notice on Effectively Conducting the Key Work for Launching the National Carbon Emission Permit Trading Market	Give full play to the decisive role of the market mechanism in the allocation of GHG emissions oriented to emissions control and low-carbon development. Require the joint efforts and coordination of central government, local governments and enterprises to promote the emissions trading market so as to ensure emissions trading will be launched nationwide in 2017	2011	Promote the emissions trading scheme, including establishment of trading markets and platforms for conventional pollutants and emissions and launch of carbon tax pilot as soon as possible
		2009	Gradually explore and establish a voluntary emissions trading system
Work Plan for the Pilot Construction of Climate Resilient Cities	Incorporate climate resilience indexes universally into the urban-rural planning system, construction plans and industrial development plans, make cities apparently more capable of dealing with such problems as waterlogging, drought, water shortage, high temperature, heatwave, strong breeze and freezing disaster and improve cities' capability of adaptation to climate change comprehensively	2014	Pay more attention to urban capacity of climate change adaptation and urban environmental planning and put in place the risk assessment framework and corresponding financial emergency funds for climate change adaptation
		2011	Speed up the development and amendment of laws and regulations in favor of emissions reduction, covering energy production and conversion and energy and resource conservation and utilization, and add climate change into the legislative agenda.

Environmental Governance and Rule of Law			
Environmental Protection Supervision Plan (for Trial Implementation)	Central Environmental Protection Inspection Teams promote the implementation of accountability of the party committees and governments, dual responsibilities in one position, and accountability for dereliction of duty.	2012	Establish marine environmental administrative inspection system and law enforcement system and strengthen supervision and inspection of EIA system implementation for marine energy development activities
		2013	When implementing the action plan for air pollution prevention and control, the Central Government should focus on monitoring and coordinating the full implementation of measures by local governments and intensify environmental accountability
		2015	Give full consideration to the impact on the ecological environment in the major national policy decisions, and supervise and evaluate the environmental performance of the State Council departments and local governments
Opinions on Establishing Unified and Standard National Ecological Civilization Pilot Zones and Implementation Plan for National Ecological Civilization Pilot Zones (in Fujian)	Specify the objective of establishing pilot zones and forming a state-level integrated test platform for ecological civilization system reform. Make, through experiment and exploration, important progress in the key reform tasks as specified in the overall scheme for the ecological civilization system reform and obtain feasible and effective institutional achievements by 2017	2012	Intensify system and policy innovation and implementation to advance the practice for ecological progress in an all-round way
		2013	Create ecological civilization pilot zones. The Central Government should take economic incentives to encourage local development of a wide range of ecological civilization pilot zones
		2014	Promote, based on multi-sectoral collaboration, regional coordinated environmental governance and eco-city pilot. Incorporate the eco-city pilot into the existing national ecological civilization demonstration system, with focus put on the pilot of regional coordinated governance of the Beijing-Tianjin-Hebei region, Yangtze River Delta and Pearl River Delta, and promote demonstration projects of " eco-city model"
		2015	Accelerate the reform for promoting ecological progress, establish a multi-party environmental governance system, create comprehensive experimental zones for green development and transformation, and implement plans and actions for the pilot reform for building green transformation governance capacity

MEP establishes the Department of Water Environmental Management, Department of Air Environmental Management and Department of Soil Environmental Management	Make an institutional reform to strengthen the prevention and control of air, water and soil pollution, by establishing the Department of Water Environmental Management, Department of Air Environmental Management and Department of Soil Environmental Management	2013	Quicken the reform of environmental protection management system to establish unified management of all pollutants, sources of emissions, environmental media, and ecosystems
		2014	Integrate pollution prevention and control functions scattered in various departments to achieve unified supervision of all sources of pollution, pollutants and environmental media
Guiding Opinions on the Pilot Reform of Vertical Management System for Environmental Protection Departments Below the Provincial Level Concerning Environmental Monitoring, Supervision and Law Enforcement	Strengthen the environmental protection responsibilities of local party committees and governments and the relevant departments; adjust the local environmental protection management system; standardize and strengthen the local environmental protection agencies and ranks; establish a sound and efficient operation mechanism	2003	Reduce local protectionism and practice more uniform and consistent environmental regulation and law enforcement in provinces
		2006	Perform vertical management of environmental departments below the provincial level through the adjustment of local environmental management systems

Measures for Administration of Post Environmental Impact Assessment for Construction Projects (for Trial Implementation) and *Measures for Administration of Regional Restricted Approval of Environmental Impact Assessment for Construction Projects (for Trial Implementation)*	Improve EIA effectiveness	2012	Improve the policy system of environmental quality compliance management. Practice a normalized system of restricted approval, covering areas with below-standard environmental quality, serious pollution or/and frequent environmental accidents and projects involving major pollution factors.
		2013	Improve the EIA and post-evaluation system of poverty alleviation projects and programs; reform systematically the environmental and social impact assessment mechanisms to carry out "pre-approval" on major projects with environmental and social impacts. Formulate policies to protect public environmental rights and interests

Implementation Plan for the Environmental Impact Assessment Reform during the 13th Five-Year Plan	Take improvement of air quality as the center, comprehensive improvement of the EIA effect as the main line and institutional innovation as the driving force; further streamline administration and delegate power to the lower levels, and intensify the crackdown on unlawful acts, improve the top-level design of strategic and planned EIA to enhance binding force, and build a preliminary EIA warning system; complete the EIA of the Beijing-Tianjin-Hebei region, Yangtze River Delta and Pearl River Delta, and organize the EIA of the Yangtze River Economic Zone and the “One Belt, One Road” Initiative; integrate with the discharge permit system to achieve system connection and target and measure consistency; perfect planning EIA consultation mechanism that facilitates cross-administrative consultation of planning organizations on major plans with possible trans-boundary environmental impact, and strengthen the regional joint defense and control.	2012	Tighten the EIA system, and monitor and evaluate the performance of enterprises and local governments in system implementation; disclose and inform of, on a regular basis, enterprises and departments that fail to meet the EIA requirements; strictly implement the EIA system and the "three-simultaneous" system; accelerate the revision of laws on environmental protection and EIA and further improve the EIA system.
		2013	Make systemic reform of mechanisms for environmental impact assessment and social impact assessment
		2014	Reform the EIA system and the "three-simultaneous" system, and improve the convergence with the discharge permit system. Carry out the pilot project for integrating the EIA system and discharge permit system; incorporate the environmental risk assessment into the formulation of environmental policies and standards. Establish regional EIA consultation mechanism, xtake joint emergency action to address regional heavy pollution weather and ensure the dissemination of early warning and emergency information to the public in a timely manner
		2015	Complete strategic EIA of the Beijing-Tianjin-Hebei region, Yangtze River Delta and Pearl River Delta and organize the strategic EIA of the Yangtze River Economic Zone and the "One Belt and One Road" Initiative
Guiding Opinions on Building the Green Financial System	Mobilize and encourage more social capital into the green industry while effectively suppressing polluting investment	2013	Highlight the safeguard of rule of law and the driving force of green financial innovation; encourage reform and innovation of the green financial system to promote the green industrial transformation and upgrading
		2014	Build a green finance system providing financial support for green transition

G20 Green Finance Synthesis Report	Send out a clear signal of supporting green investment to investors; promote the voluntary principle of green finance; pool more resources to support capacity building; support the support of domestic green bond market; develop environmental risk analysis methods	2015	Create comprehensive experimental areas for green development and transition, implement plans and actions for the pilot integrated reform of green transition governance capacity, practice green financial innovation mechanism, and improve the environmental governance capability; accelerate the development of green finance, green logistics and energy conservation and environmental protection services, and develop productive services through green capacity building; incorporate green finance into the "One Belt and One Road" financing mechanism, urge "going-out" corporate investor to attach importance to ecological and environmental protection and actively fulfill their social and environmental responsibilities; reform and innovate the green finance system and promote green industrial transformation and upgrading
Guidelines for the Issuance of Green Bonds	Green bonds are corporate bonds that raise funds to support green, circular and low-carbon development projects, covering energy conservation and emission reduction technology transformation, green urbanization, clean and efficient utilization of energy, new energy development and utilization, development of circular economy, conservation of water resources and development and utilization of unconventional water resources, pollution control, ecological agriculture and forestry, energy conservation and environmental protection industry, low-carbon industry, advance demonstration and experiment of ecological civilization, and low-carbon pilot demonstration	2014	Give full play to the leverage of green bonds and benefits of large-scale professional assessment capacity; encourage social capital participation through the issuance of green bonds
		2015	Promote green credit, green bonds and green insurance. Promote green credit by innovative means and vigorously develop the markets of green bonds and green insurance

Guiding Opinions on Strengthening the Construction of the Enterprise Environmental Credit System	Publicize corporate environmental information through government website, "Credit China" website, and other channels familiar to and accessible for the public and include the information into the corporate environmental information system and national unified credit information sharing platform	2012	Create a social atmosphere for enterprises to take a proactive approach to law-abiding development and to establish an environmental credit rating system for enterprises
		2014	Establish as soon as possible the corporate environmental credit rating system and encourage enterprises that comply with emissions standards and constantly improve environmental performance
		2015	Establish corporate environmental credit rating system which requires mandatory environmental information disclosure of listed companies
Notice on Comprehensively Promoting the Resource Tax Reform and Interim Measures for the Pilot Reform of Water Resource Tax	Propose price-based collection of tax on mineral resources and include the mineral resource tax into local fiscal revenue	2012	Improve the green development capacity of local governments through the reform of resource tax system
		2014	Conduct resource tax reform that tax should be collected on a price basis
		2015	Reform the pricing mechanism of important resource products by incorporating environmental costs, starting with fossil energy sources such as coal and petroleum, and develop the green fiscal policy that reflect the environmental costs of production and consumption
Implementation Opinions on Accelerating the Promotion of Lifestyle Greening	By 2020, popularize the value of ecological civilization across the whole society, strengthen evidently the whole people's concept of green lifestyle, and establish preliminarily a system of policies, laws and regulations for lifestyle greening	2011	Strengthen the regulation and guidance to green the traditional service industry
		2012	In the social field, advocate green consumption patterns and guide eco-friendly behavior and change the way of life in the whole society
		2013	Guide active public participation in environmental protection in rich and innovative forms and in a variety of ways, such as through green consumption, green travel and changing lifestyles, and create a good social atmosphere of fulfilling the shared environmental responsibilities and obligations
		2014	Encourage grassroots organizations to cast attention to environmental governance. Reflect the public environmental demands, develop environmental protection social conventions, and promote green lifestyle

		2015	Encourage and ensure the whole society to participate in environmental protection action, promote sustainable consumption and lead a green-oriented change of lifestyle by guiding green diet, promoting green clothing, advocating green living and encouraging green travel
Guiding Opinions on Promoting Green Consumption	Speed up the transition towards green consumption according to green development concepts and socialist core values	2009	Advocate sustainable consumption patterns, promote low-carbon lifestyle and give full play to the role of the public and non-governmental organizations in green economic development
		2011	Promote sustainable consumption to boost green economic development
	Encourage enterprises to build green supply chain, carry out cleaner production audit, and reduce life-cycle environmental impact of products	2013	Promote the inclusion of green supply chain as an important indicator of statutory procurement criteria
		2015	Promote government green procurement and encourage leading enterprises to implement green supply chain management voluntarily
Environmental Protection Tax Law (Draft)	Shift sewage charges to enhance mandatory collection and reduce intervention in the collection.	2009	Implement an environmental tax system that centers on sound environmental taxation. Study to carry out as soon as possible the environmental tax reform focused on environmental taxation to make up for China's current environmental tax system. Build China's environmental tax framework by introducing environmental tax, restructuring the existing taxes and improving the environment-related tax policies. Include wastewater, waste gas, solid waste and carbon dioxide into the scope of environmental taxation. Reform the environmental taxation system in an approach of easiness and gradualness, study the imposition of independent environmental tax as soon as possible, and perfect other environment-related taxes and tax policies.
		2011	Accelerate the resource tax reform, adjust the consumption tax policy in line with implementation of energy conservation and environmental protection policy, and impose environmental taxes (including carbon tax)

		2012	Impose additional consumption taxes on products entailing severe environmental pollution and great resource and energy consumption, and accelerate the introduction of environmental tax. Implement the green tax system (including environmental tax and resource tax) and other market incentives to change the behavior of enterprises and consumers. Accelerate the implementation of environmental tax and introduce the "leader" standards
		2014	Introduce environmental taxes. Environmental taxes are levied on pollutant discharge in accordance with the principle that the polluter pays.
Opinions on Giving Full Play to the Functional Role of Trial to Provide Judicial Services and Safeguard for Ecological Progress and Green Development	Construct the cooperative trial mechanism to handle, according to law, cases involving environmental pollution prevention, ecological protection, development and utilization of natural resources and ecological damage compensation litigation cases. Actively explore the judicial response to climate change and promote the construction of national governance system to address climate change	2007	Establish and improve the environmental justice system to safeguard public and individual environmental benefits and environmental justice
		2013	Promote the construction of local environmental courts and improve the relevant judicial practice
		2014	Strengthen environmental justice practice, promote the coordination between environmental and judicial departments, build up environmental courts and environmental judges; improve the responsibility and capability of the judicial authorities to pursue accountability of environmental violations

Green Industry Development Plan (2016-2020)	Drive the development of upstream parts and components suppliers and downstream recovery and processing enterprises through the implementation of green supply chain standards and producer responsibility extension system, relying on leading enterprises in the industries of automobile, electronic appliance, communication, machinery and large-scale complete sets of equipment. Establish a traceable information system for green raw materials and products.	2011	Establish and improve China's green supply chain system and drive the transformation of the whole production system green through green consumption and green market
Green Manufacturing Engineering Guide (2016-2020)	Establish green supply chain management system based on active application of such information technologies as the Internet of things, big data and cloud computing. Improve green supply chain management regulations covering procurement, suppliers and logistics and carry out green supply chain management pilot. By 2020, basically establish green supply chain management system in key industries, and make substantial progress in the producer responsibility extension system.	2012	Establish and continuously improve the sustainable green consumption system, and further deepen the government green procurement list and green supply chain practice and innovation

Pollution Prevention, Control and Mitigation			
Mid-stage assessment of *Air Pollution Prevention and Control Action Plan*	Assess and confirm the national air quality and the trends and pollution characteristics using a variety of technical methods based on the datasets of MEP, CAS, CMA and relevant scientific research institutes obtained through long-term ground observation, comprehensive observation of typical processes and satellite remote sensing inversion.	2014	Establish an air quality improvement based management model and a scientific performance evaluation system for air pollution prevention and control; establish a system of pre-assessment, annual assessment and final assessment of the *Air Pollution Prevention and Control Action Plan*; improve the mechanism for regional joint air pollution prevention and control
Notice on Strengthening Environmental Pollution Prevention, Control and Governance of the Yangtze River Golden Waterway	Put eco-environmental restoration of the Yangtze River in an overwhelming position and propose to carry forward water pollution prevention and control and ecological protection and restoration of the Yangtze River in an all-round way through intensifying spatial control, optimizing industrial structure, strengthening source treatment and emphasizing risk prevention and control, with the core on the improvement of water environment quality	2015	Conduct environmental risk assessment for such macro-level strategies as "One Belt and One Road", Beijing-Tianjin-Hebei Integration, and Yangtze River Economic Belt to form an environmental risk prevention mechanism
Soil Pollution Prevention and Control Action Plan	Form an effective system of soil pollution prevention and control to promote the sustainable use of soil resources	2011	It is important to introduce a package of green programs and policy measures concerning pollution prevention, energy and climate change, resource pricing, ecological compensation and environmental restoration to address soil pollution in traditional industries and mining areas, given the weak legal framework for environmental and pricing reform.

		2013	Call on the Chinese Government to make greater efforts to solve the outstanding impact on public health and life problems, including air, water and soil pollution and decline in ecological services, when promoting ecological progress or building a harmonious green relationship between environment and development
		2014	Include the disclosure and update of information on a regular basis, including the predictive results of air, water and soil pollution posing future health threats to the urban population and climate change impact and adaptation, as an important basis for performance appraisal of government officials
		2015	Amend the *Soil Pollution Prevention and Control Law* included in the legislative planning as the *Soil Environmental Protection Law*.
Regional and Global Engagement			
Joint Statement Issued at the Conclusion of the 21st BASIC Ministerial Meeting on Climate Change	Promote the outcome of the *Paris Agreement*, and urge the developed countries to issue commitments		
U.S.-China Joint Presidential Statement on Climate Change	Join the *Paris Agreement* and bring it in force as early as possible; make positive results on relevant multilateral occasions, including the HFC amendment and the ICAO's global market-based measure to address GHG emissions from international aviation; finance and encourage the progressive introduction of low-carbon technologies		

Montreal Protocol on Substances that Deplete the Ozone Layer	Reach a historic consensus on reducing the use of HFCs		
"Work Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change", the speech given by President Xi Jinping at the Paris Conference on Climate Change	Make efforts to achieve the climate change agreement; create a future of win-win cooperation with each country making its best, rule of law, fairness and justice, and inclusive and common development and mutual learning; engage an active participant in the global response to climate change to	2015	Develop and implement China's green action for foreign aid, strengthen South-South environmental cooperation, and build green, low-carbon, eco-friendly and developing "One Road and One Belt".