



Annual Report 2015

Chinese Academy for Environmental Planning





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1. Forward from the President

The year 2015 was the last year of “The 12th Five Year Plan”. Our Academy adhered to the development concept of “innovation, coordination, green, openness and sharing”, further emancipated the mind and updated new ideas around the central task, concentrated on improving research capacity, made up for business deficiency to enhance support ability, and constantly reinforced the foundation and improved discipline system.

CAEP focused on the three main tasks “Plan-Policy-Project”, promoted the research and compilation of the “The 13th Five Year Plan”, strengthened the support for the study and formulation of three Action Plans (“The Action Plan for Prevention and Control on Air Pollution”, “The Action Plan for Prevention and Control of Water Pollution”, “The Action Plan for Prevention and Control of Soil Pollution”), and the support for its implementation. All staff of the institute coordinated with absolute sincerity, worked hard to complete various tasks successfully, and made gratifying achievements.

In 2015 CAEP undertook 50 various scientific research projects. Two projects were awarded as the First Prize, Second Prize and Third Prize respectively in 2015 for Environmental Protection Science and Technology Advance. CAEP has 9 patents and 8 software copyright. The Academy got the qualification for the appraisal and evaluation of environmental damage, won the bid for the qualifications of implementing projects in the professional field of international and overseas technical and environmental protection of the Ministry of Commerce. The overall level of scientific research improved significantly, particularly as a representative of new think tank in the environmental field, both CAEP’s international and domestic influence has been increasing.



▲ President HONG Yaxiong

HONG Yaxiong , President

2. Introduction

Chinese Academy for Environmental Planning (CAEP) actively adapts to the needs for continuous development of environmental protection cause, positioned itself as the scientific research institution for government's decision-making. CAEP expanded and refined business advantages by building up multi-directional scientific research business system for three major areas (Plan-Policy-Project) while developing comprehensive business in the last ten years or so.

Since its establishment, CAEP has been aiming at providing high quality decision-making services to environment management departments, and has gained remarkable achievements in national environment protection planning, research and development of environmental policies, project consultations and evaluations etc. It laid solid foundation for building environment planning discipline cluster along with its continuous growth, and through exchanges with research institutions at home and abroad by learning from one another.



Planning:

CAEP develops national medium and long-term environmental strategic plans, compiles and assesses the implementation of special plans in key basins, regions and areas ,conducts research on planning theories and methodologies, indicators systems and other techniques related to environmental planning; provides technical review of relevant planning, technical guidance for planning implementation, undertakes formulation for total amount control of pollutant emission and technical support of its implementation.

Policy:

CAEP conducts studies on environmental and economic accounting, financial and economic policies related to environmental protection, ecological compensation policies and environmental auditing etc.; provides technical support for environment risk assessments and management, pollution damage assessments and economic loss evaluations etc.

Project:

CAEP provides technical consultations and assessments for planned projects, provided technical consultations, services and performance assessments etc. for the specially funded projects from Central government.



▲ The Leadership of CAEP

Chinese Academy for Environmental Planning (CAEP) is led by a management team comprising the president and vice presidents of the institution. The team works to ensure that CAEP is operating efficiently and maintain the highest standards of quality, independence, and impact of its activities.

Currently there are 57 researchers have PhD degree accounting for 24% of the total, 143 staffs have master degree, accounting for 60%, 21 staffs have entitles as researcher and 41 as deputy researcher, the scientific researchers with senior or middle-level professional titles and rich theoretical knowledge and practical experiences reached 73%.

Revenues : CAEP undertook over 248 scientific research projects with accumulated scientific fund of 280 million Yuan. Among this, 58 government sponsored research project with the amount over 108 million Yuan; 49 projects related to “863”, scientific key themes, funds, special projects for water and public welfare etc. with the scientific funds exceeding 16.9 million Yuan; The funds for international cooperation projects exceeded 46.2 million Yuan. 166 Horizontal science and technology project with accumulated 143 million Yuan, 30% more than 2014.

3.The Highlights of 2015

According to the “2015 Global Go To Think Tank” released by the Think Tanks and Civil Societies Program of U.S. Pennsylvania University, CAEP ranked top 34th in the think tank for the category of Environment Policy Think Tanks, in which ranked the top among the elected Chinese Think Tank. Meanwhile, CAEP won the bidding to be the implementing unit for the foreign aid projects of Ministry of Commerce of the People's Republic of China (MOFCOM) in the area of technology and environmental protection, which is the only scientific research institution among the five organizations winning the bid.



▲ Vice Minister Li Ganjie (Middle) visited CAEP



▲ The Acceptance Meeting of Natural Science Foundation Project



▲ The Technical Assistance Program of ADB

Planning

Compilation of National Environment Plan:

CAEP completed “Outline of Final Evaluation Report and Indicator System on National Environmental Protection for the ‘12th Five Year Plan’”, organized technical trainings on compiling provincial self-evaluation reports, compiled and completed “Technical Plan for Provincial Final Evaluation of National Environmental Protection on the ‘12th Five Year Plan’”. It compiled and completed the preliminary draft for the planning based on the “Basic Thoughts of National Environmental Protection for the ‘13th Five Year Plan’”. It organized a series of strategic special studies for the “13th Five Year Plan”, completed special reports on objective for moderately developed society, indicator system for planning, environment quality management, international benchmarking, social governance and public opinion analysis etc.

Final Evaluation and Assessment Forum of National Environmental Protection for the 12th Five Year Plan ▼



▲ Summary Meeting of Pilot Provinces for Emission Trading Program

The Action Plan for Prevention and Control of Water Pollution (Water Action):

CAEP designed and completed objectives and tasks on action plan for 35 provision of 10 article in “Water Action”, compiled work plans for provinces and cities, technical guidance for annual plan etc. It disseminated and interpreted “Water Action” and implemented the relevant work. It provided public information for many medias such as, The Chinese Government Net, Xinhua Net, China Central Television(CCTV); participated relevant dissemination and training work for Hubei, Guangdong, Jiangsu, Guizhou, Xinjiang, Jiangxi, Liaoning and other provinces and cities; for MOFCOM, Ministry of Science and Technology (MOST) and other ministries, associations etc. It got involved in the formulation of liability statements of water pollution control targets for 31 provinces, and organized over 10 technical trainings in different provinces and cities.



▲ Compiling Meeting of 13th Five Year Pollution and Prevention Control Planning for Heavy Metals and Toxic and Hazardous Substances



▲ Seminar of Yangtze River Economic Belt Ecological Environmental Protection Planning`

The Action Plan for Prevention and Control on Air Pollution (Air Action):

CAEP developed and practiced the examination and evaluation methods focused on air quality improvement, compiled “Methods for Evaluating the Implementation of Action Plan for Air Pollution Control (in trial) and Implementation Rules”, and assisted in organizing the evaluation and examination for the implementation of “Air Action” in 2014. It supported the establishment of the joint mechanism for regional pollution control, drafted “Plan for Joint Control Mechanism for Air Pollution in Key Regions”, submitted the report to MEP on “Joint Mechanism for Emergency Response to Heavily Polluted Weather” by combining the control requirements for the emergency response to heavy pollution.

The Action Plan for Prevention and Control of Soil Pollution (Soil Action):

CAEP completed the draft of “Soil Action” for examination and the preparations of the relevant approval procedures for the State Council. It drafted technical documents and proof materials such as “Construction Standard for Comprehensive Control of Soil Pollution in Demonstration Zones”, “Technical Guideline of Delimiting Red Line for Soil Environment Quality”, “Technical Guidelines for Classifying Environment Quality of Agro-Land Soil” etc. It participated in many key projects for national soil pollution prevention control including the compilation of “Overall Plan for The Survey on National Soil Pollution Status”, drafting the “Soil Pollution Prevention Control Law” and revision of “Standard for Soil Environment Quality etc.. It organized special studies such as the organization of financing mechanism, technical system for governance and restoration etc.

▼ The Demonstration Meeting of Environmental Master Plan in Fuzhou





Policy

Pilot Study on The National Environment Function Zoning:

CAEP drafted “Examination Methods for Performance Evaluation Based on Environment Function Zoning”, “Methods for Monitoring and Evaluating Ecological Environment Based on Environment Function Zoning” and other relevant documents, continuously promoted the pilots for compiling environment function zoning and guided Hunan, Qinghai, Heilongjiang, Ningxia and other provinces in compiling plans for zoning; It drafted “The Method of Management for Red Line of Ecological Conservation (in trial)”, “Pilot Plan on the Management and Control for Red Line of Ecological Conservation” and other documents. It completed the compilation of “Environment Planning for The Coordinated Development of Beijing, Tianjin and Hebei Province”, the red line for ecological conservation and environment function zoning were incorporated into regional environmental planning for the first time .

Environment Risk Assessment and Pollution Damage Assessment

CAEP assisted the drafting of “Plan for the Pilot of Reforming the System

for Ecological Environmental Damage Compensation” (issued by Information Office of State Council) and “Notification by Ministry of Justice and MEP on the Standardization of Management Work for Judicial Identification of Environment Damage” (Justice Dept. Document No.118, [2015]) ; conducted assessments on the damage of major environment incidents including “8.12 Major Fire Explosion Incident at Tianjin Port”, “Pollution Incident in Tengger Desert” etc.; organized technical trainings at different levels (national, local and enterprise) including “Technical Training on Identifying & Evaluating Environment Damage”, “The 6th Forum on Environment Risks and Damage Assessment and Evaluation”, “Training for Enterprises on

Environment Risk Management in Era of New Environmental Protection Law”.

Comprehensive Directory for Environmental Protection :

CAEP completed “Comprehensive Directory for Environmental Protection (2015 version)” (MEP Document No.[2015]1728) , completed the “Local Version of Comprehensive Directory for Environmental Protection (2015version) ”. CAEP together with MOFCOM revised “Catalogue for Commodities Prohibited in Processing Trade”, drafted “Management Methods for Developing Comprehensive Directory for Environmental Protection”. It conducted special studies on the relevant issues regarding the artificial incorporation of “high energy consumption and high pollution” products into the directory, and studies on the mandatory information disclosure from severely polluting enterprises etc.



▲ Conference of National Environmental and Economic Accounting Research for Pilot Spot

Project

Research on Environment Investment and Financing and PPP:

CAEP established PPP Research Center, drafted “Implementation Opinions of Ministry of Finance (MOF) and MEP for Promoting the Combination of Government and Social Capital for Water Pollution Prevention Control” (MOF Document No. 90 [2015]). It published a series of articles for interpretation on “China Environment News” and “Modern Logistics”; organized “The 4th Academic Seminar on National Environmental PPP and Strategic Development of Environmental Industry”, actively organized “Special Trainings on Environment PPP in Jiangxi, Yunnan and Other Provinces”.



▲ Seminar of National Environmental and Economic Accounting Research for Pilot Spot



▲ The Technical Assistance Program of ADB

Practices for Contamination Restoration Projects:

CAEP conducted surveys and assessments on the contaminated sites with pesticides, heavy metals in watershed scale in Qinghai, Hebei, Hunan, Hubei and other provinces, and compiled plans for restoration projects and pollution governance. It filed many patents including amphibious soil and groundwater sampling equipment, mobile professional and comprehensive drilling rig for soil restoration, caterpillar soil and groundwater sampling equipment etc. It studied and developed materials with environmental restoration functions, studied integrated environmental control of huge contaminated sites and its green and sustainable restoration etc.



▲ Preparatory Meeting of Environmental Protection Planning of Guangdong Province

4. Scientific Research Platform

State Key Laboratory for Environmental Planning and Policy Simulation

The State Key Laboratory for Environmental Planning and Policy Simulation was approved and established by MEP in 2012.

Currently the laboratory possesses the top class software and hardware strength for environment planning and policy simulation studies. In 2015, the lab was further strengthened in terms of the construction of organization management, talents team, disciplinary development and infrastructure etc. Many major subjects were studied in 2015, including the compilation of the coordinated plan for ecological and environmental protection in Beijing, Tianjin and Hebei Province, reform of the vertical management system for the enforcement of environment monitoring and inspection, national environment assets accounting system (green GDP2.0), national monitoring and early warning mechanism for environment carrying capacity, measurement of environment investment contributions for “The Action Plan for Water Pollution Prevention and Control”, environmental and economic prediction for the “13th Five Year Plan” etc. CAEP organized large-scale academic conference on the simulation and modeling of national environmental planning, further promoted the studies on the coupling and application of models for



▲ SKLEPPS' Acceptance Meeting with MEP

water environment quality in SWAT watershed, CMAQ regional air quality model, Gempack general equilibrium model CGE. Several high level academic papers were published in Environment Science and Technology (EST), World Protection (WP), Frontiers of Environmental Science and Engineering (FESE) and other magazines.



▲ Multimedia Room of SKLEPPS

Laboratory for Environment Damage and Ecological Restoration

Based on the two important platforms which include Environment Damage and Ecological Restoration Laboratory of CAEP and Beijing Key Laboratory for Environment Damage and Pollution Remediation, the lab continuously improved its hardware and expanded its business scope in 2015. It further developed and improved technical methodologies and standard systems for the assessment of environment damage identification, actively promoted the industrialization of the assessments and restoration technologies. Sampling tools currently available in the lab include: Geological compass, X fluorescence analyzer for heavy metals, air/smart TSP comprehensive sampler, hand-held flow meter, treatment device for volatile hazardous wastes, electric heating digestion apparatus, GPS positioning storage tool, portable VOC detector and other hardware for the lab. The lab was dedicated to the development of model tools for the areas related to simulation of environment damage, risk quantification, pollution restoration etc. It provided effective technical supports and services to the identification and assessment of local environment incident damage through continuous and innovative studies on environment restoration technologies, techniques and equipment.

Organic Analysis Platform ▼



▲ Laboratory Ultra Pure Water Device



▲ Detector for Heavy Metals

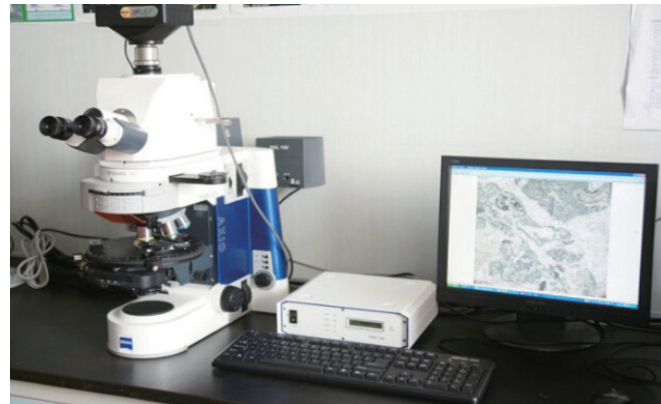


▲ Large Centrifugal Machine

Laboratory for Groundwater Environment

The laboratory was jointly established by CAEP and China University of Geoscience (CUG, Wuhan). The two sides provide personnel, technology and equipment, jointly established domestic leading and internationally first class "Laboratory for Groundwater Simulation, Restoration and Application". The lab aims to address the national major needs for groundwater environment, guided by the scientific theory on water cycle in epigeospheric system, it is mainly targeting at the groundwater utilization and sustainability of environmental protection. Focusing on the formation and evolution of groundwater and its interconnection with environment

system, supported by the environment isotope technology, microorganism and water quality analysis technology, digital simulation and information technology, the lab continuously innovated and developed the scientific theory for groundwater environment restoration and the technology for environment engineering, including the studies on the evolution process of groundwater formation and circulation, conservation and restoration, and the exploration of key technologies for groundwater environment engineering. Scientific innovation has been emphasized to promote the new norm of the coordinated development of human activity and groundwater environmental protection, to provide scientific bases for addressing water environment improvement.



▲ Image analysis system for Polarized Reflectance and Transmission Fluorescence Microscope and Hot- cold Stages



▲ Environmental Management Seminar of Carbon Dioxide Capture and Utilization and Storage

▼ Carbon Dioxide Leak Site in Qinghai



Center for Climate Change and Environmental Policy

The center, based on major demand from national climate change and environmental policy areas, carries out studies on medium and long-term climate change, sustainable energy and environmental strategy and policy issues to promote social, economic and environmental sustainability, improve the coordination in the field of environmental protection and climate change policy, and provide scientific basis and policy suggestions for the government to formulate strategy and policy for slowing down and handling climate change, energy policy, economic policy and environmental policy and industrial policy. The center cultivates senior level professionals in the field of climate change policies, environment policies and energy policies. It built up the platform for the collaboration and exchanges with partner institutions at home and abroad. In 2015, CCCEP led the inspections on carbon emissions in Beijing city, promoted relevant supports for “carbon capture, utilization and storage project” entrusted by the Clean Development Fund, and completed research reports on CO₂ emission assessments for prefecture cities in China etc.

Center for Environmental accounting

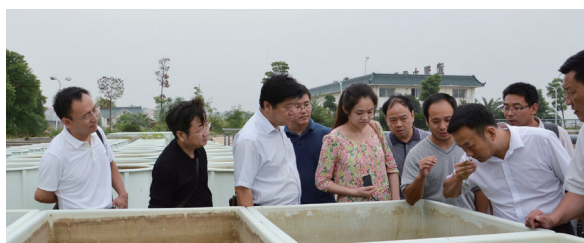
The center mainly conducts studies on the theories and methodologies for environmental and economic account in China, and for environment data and application. Based on this, the center combines with various requirements for environment management, conducts studies on the development and application of performance assessment and indicators for green development targeted at management application, providing technical supports to environment statistics, total emission reduction etc. In 2015, CEA completed the reports on “Chinese Environmental and Economic Accounting in 2013”, “Benefits Accounting for Air Quality Improvement” etc., compiled “Environment Assets and Debt Accounting and Technical Guidance”, completed the priority tasks of public benefit project “Assessments on the Pollution and Damage of Ecological Environment Due to the Extraction of National Rare Earth” by accounting the ecological damage loss as the result of extracting national rare earth etc.

Center for Environmental Zoning

The Center mainly conducts studies on the basic theories and technical methodologies related to environment function zones and on the establishment of the national systems for environment function zoning and environment management based on the zoning; develops management policies and technical specifications for the zoning, studies technical approaches for environment management based on zoning control such as red line control system etc.; provides technical consultation services to the design, implementation process and effects evaluation of the management systems for the national and local environment function zoning; It provides overall technical supports to national environment function zoning. In 2015, the Center drafted “Performance Evaluation and Examination Methodologies Based on Environment Function Zoning”, “Monitoring and Evaluation Methodologies for the Ecological Environment Based on Environment Function Zoning”, “Technical

Guidance for Special Planning of Ecological Environment Based on Environment Function Zoning”, “Technical Guidelines for the Compilation of Environment Function Zoning (Revision) ” and other documents; CEZ assisted MEP , NDRC for the issuing of “Opinions for the Implementation of National Environment Policies in the Main Function Zones ” (MEP Document No. 92 [2015]) ; It led the technical support for the red line delineation based on environment quality; provided technical guidance to the development of plans for environment function zoning in Hunan, Qinghai and Heilongjiang Provinces, completed the technical acceptance inspection for the plans of environment function zoning in Ningxia and other provinces.

▼ Construction Planning of Ecological Civilization Demonstration Zone in Ezhou



Center for Heavy Metal Pollution Prevention and Control

The Center focuses on heavy metal pollution Prevention and control, conducts theoretical and methodology research for the control planning, performance evaluation, industrial management policies, pollution prevention and control technologies and risk assessments etc., providing technical supports to comprehensive policies decision-making for environment management and integrated consultation services to the society for the relevant areas. In 2015, the Center put all efforts in the compilation of heavy metal pollution prevention and control for the “13th Five Year Plan” period. It assisted MEP with the supervision and inspection on the specially funded projects for heavy metals and central financial special fund project for environmental protection; completed the compilation of the management documents for the restoration of heavy metal contaminated sites in Hunan province; organized the Third National Technical Seminar on Heavy Metal Pollution Control; completed studies on key issues related to heavy metal pollution prevention and control in Inner Mongolia, designed



▲ Technical Seminar of 3rd Heavy Metals Pollution and Prevention Control



▲ Center Opening Ceremony

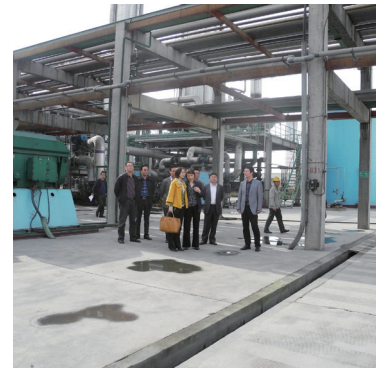
plan for upgrading and renovation of the hazardous wastes disposal facilities in Shenzhen, studies on the standard for contaminated site restoration in Qinghai Province, and studies on the development of pollution prevention and control system for heavy metal industrial park in Qinghai Province. CAEP led the compilation of “the 12th Five Year Plan for Heavy Metal Pollution Prevention and Control”, and it has been awarded the 2nd prize in 2014 for the achievements in national engineering consultation.

▼ The Elimination of the Sulphuric Acid Plant



Center for the Investment Performance Management

The Center mainly studies on the theories, technologies, methodologies, policies, systems and standards of performance management for the environmental investment and whole process of project implementation; formed the project management methodology system for the whole process performance including performance objective, evaluation, process follow-up, engineering standard and performance feedback. It not only provides technical supports to MEP and relevant ministries for the performance management of the investment projects of national environmental protection but also accepts service orders from society for the relevant areas. In 2015, the Center completed the “Report on the Technical Summary for the Performance Evaluation of Pollution Prevention Control Projects” and “Report on the Research of Technical Methodologies for Pollution Prevention Control Projects”. The special edition for the article “Vigorously Promoting Performance Evaluation, Improving Project Management, Increasing Performance Awareness” was published in China Environment News, compiled the reference article for important decision making which says that “the Overall Performance of Central Environment Projects and Specially Funded Projects for Heavy Metals are Good, Yet the Use Model of Special Funds Needs Improvement, Capacity Building for Project Management Needs to be Strengthened, Scope of Performance Evaluation Needs to be Expanded”.



▲ Sewage Zero Discharge Project in Sichuan



▲ Comprehensive Treatment of Water Pollution in Yantai



▲ Comprehensive Prevention and Control of Heavy Metal Pollution Prevention and Control Project in Jiangxi

Center for Total Emission Control of Pollutants

The studies conducted and technical support provided by the Center include: research and development of national plan for total volume control of pollutants, planning and its implementation plans etc., other topics such as: analysis on the pollutants emission data and environment statistics approaches, total volume control system and policy, environment capacity measurement, emission permit, emission trading and climate change etc.



▲ Seminar of 13th Five Year Plan for Air Total Pollution Control

The Center made breakthrough in the research of water environment carrying capacity in 2015 by combining in-depth understanding of total volume emission reduction system with the development of water quality models and other tools. The models were applied for the development of actual plans which provided strong technical supports to the fine management; It involved in the compilation of "Technical Guideline for the Formulation of Plans for the Total Volume Emission Control of Main Pollutants During the '13th Five Year Plan'". assisted MEP to conduct verification, accounting and technical review of the pollution emission reduction from enterprises in provinces (regions and cities) and from key enterprises designated by the Central government; completed technical review of the annual plan for pollution emission reduction for year 2015.



▲ Seminar of Total Volume Emission Control of Water Pollution during 13th Five Year



▲ Seminar of Total Volume Emission Control

Center for Soil Environmental Protection

The center studies and develops relevant plans, policies and standards for soil contamination prevention and control based on the needs for national and local soil environmental protection; conducts technical assessments and selection, organizes and participates in the basic surveys on soil environment, establishment of data management platforms and other relevant work; It provides technical consultation services to national departments, local governments and enterprises for the relevant planning, policies, technical plans and engineering designs for soil environmental protection, pollution governance and restoration. In 2015 the center was dedicated to provide technical supports for the development of "the Action Plan or Soil Pollution Prevention Control", its draft for examination has been completed. Other technical documents have been drafted to support the "Soil Action" including "Standard for The Construction of Demonstration Zones for Comprehensive Control of Solid Pollution", "Technical Guidance for Delimiting Red Line for Soil Environment Quality", "Technical



▲ Expert Advisory Meeting of "Soil Action Plan"



▲ Investigation of Soil Environmental Quality in Huangshi

Guidance for Classifying Environment Quality of Agro-land Soil" and other technical documents. It actively participated in the studies and drafting of "Overall Plan for the Survey of National Soil Pollution Status", "Soil Pollution Control Law", revision of "Standard for Environment Quality Of Agro-land Soil". In addition, the Center also undertook the scientific project "Zoning Research on the Safety Threshold and Space Control for the Ecological Environment of Economic Circle In Urumchi", "Research on the Methodologies for Classifying and Identifying the Environment Quality of Agro-land Soil", and "Research on the Methodologies for Performance Evaluation of Soil Environmental Protection and the Comprehensive Control".

▼ The Meeting of Soil Environmental Protection and the Comprehensive Control in Ningxia



Center for Environmental Public-Private-Partnership

The Center mainly provides technical supports to the theories, methodologies and policies for environment PPP etc.; studies methodologies for assessing the financial carrying capacity of environment PPP projects, assessing values and project performance etc.; studies environment investment and financing policies including the designs for Central fund for environmental projects, environment fund, and for environment finance etc.; studies the innovation for environmental industrial development models and policies, providing technical supports, profession training and project designs to the national and local policy development, implementation, project evaluation etc. for environment PPP. Focusing on PPP policy, the Center published series of interpretations in China Environment News in 2015, including “Implementation of New PPP Models for Water Pollution Control”, “Making Breakthrough in Restriction Bottlenecks and Vigorously Developing Environment PPP”, “Innovating PPP Project Financing Model”, “PPP Playing the Role of Financial Guidance for Water Pollution Control”, “Strengthening Performance Evaluation for PPP Projects”, “Who Will Open the Market for Government Purchase of Environment Services” etc. It led the projects such as “PPP Project for the Development of Monitoring System for The Ecological Environment In Fuxian Lake”, “PPP Project for Scenery Improvement and Transformation and Water Tourist Routes Optimization and Upgrading in the Demonstration Zones in Xiangtan Water House”, “PPP Project for Water Pollution Control in Xiangxiang Reservoir Basin and Lianshui River Watershed”, “PPP Project for Internet of Environment (air quality monitoring stations) in Guangxi Region” etc.



▲ Industrial Park Research in Huaian



▲ Implementation Plan Review Meeting of PPP



▲ The 4th Conference on Investment and Financing of Environmental Protection and Industrial Development

排污许可制度

2015.12 中国·北京

主办单位：
环境保护部污染物排放总量控制司

承办单位：
环境保护部环境规划院

Sponsor:
Dept. of P

Host:
Chinese

Supporters:
Environ



▲ Minister Chen Jining made Keynote Speech



▲ Development of the System for Emission Permits Achieved Stage Result



▲ Emission Permits Research in Zhejiang

Center for Pollution Permit and Trade

The Center provides technical supports to the local governments regarding the formulation and implementation and effects evaluation etc. For national pollutants emission permit, pollution emission trading policies; provides technical supports for the development of theories, methodologies and policies for pollution emission permit and emission trading etc.; designs the framework for emission permit and emission trading system and studies implementation plans; studies technical methodologies for emission permit in main industries, compiles technical guidelines for issuing water and air emission permits; conducts follow-up assessments on the implementation effects of emission permit and trading system; designs and develops the management platform for emission permit, and guides the development of the management platform for national emission permit and trading.



5. Collaboration

Internationally

Focusing on the key tasks, CAEP actively expanded domestic and international exchanges and collaboration on scientific research, organized over 30 international academic exchanges activities including “The 2nd Policy Dialogue on Air Pollution between China, Japan and Korea”, “The 5th Meeting of China-US joint commission for Environmental Cooperation (JCEC) Technical Exchanges on Pollution Control of Sino-Italian Collaborative Project for Environment Management and Sustainable Development”; signed memorandum (MOU) with Institute for Sustainable Development and International Relations (IDDRI) from France; successfully organized three international seminars, including “2015 Water Pollution Prevention Control”, “Ecological Compensation for 2015”, “National Seminar on Environment and Health”, an “International Seminar on Pollution Emission Permit” etc.



▲ International Conference on Eco-cooperation 2015



▲ The Meeting of Public-Private Dialogue on Services

Domestically

C AEP organized over 10 domestic academic exchange activities including “The 4th National Academic Seminar on Environment Planning and Policy Model-Simulation and Model for Water Environment”, “The 3rd Technical Seminar On Heavy Metal Pollution Prevention Control Technology”, “The 6th Forum on Environment Risks and Damage” etc.; organized 8 special lectures including “The Theories and Practices of U.S.TMDL (Carrying Capacity of Water Environment)”, “VOCs Testing and Control Technologies and Methodologies for Enterprises”, “Technology for VOCs Emission Inventory for Typical Industries in North America” etc.; organized 4 trainings including “Training on Environment Policies and Regulations- Environment Liability of Enterprises in the Ara of New Environmental Protection Law”, “Training on National Management and Watershed Ecological Compensation for Ecological Function Zone”.

中国环境科学学会环境经济分会2015年学术年会 10月23



▲ The Annual Academic Meeting of Environmental Economics



▲ Eco Forum Global Annual Conference Guiyang 2015



▲ International Conference on Water Pollution Prevention Control 2015

▼ The Training of Environmental Policy and Regulatory



战略合作框架协议签约仪式

宿迁市人民政府

环境保护部环境规划院

2015年11月14日 北京



李荣锦

洪亚雄

▲ Strategic Cooperation Agreement with Suqian Municipal Government

Strategic Cooperation

Taking advantage of its strength, CAEP initiated broad strategic collaboration with local governments and scientific institutions in 2015, signed 7 agreements for strategic collaboration agreements including the one with CUG (Wuhan), Yuxi municipal government, Yichang municipal government, Ji County government, Langfang municipal government, Suqian municipal government and Zhuhai municipal government.



▲ Strategic Cooperation Agreement with CUG (Wuhan)

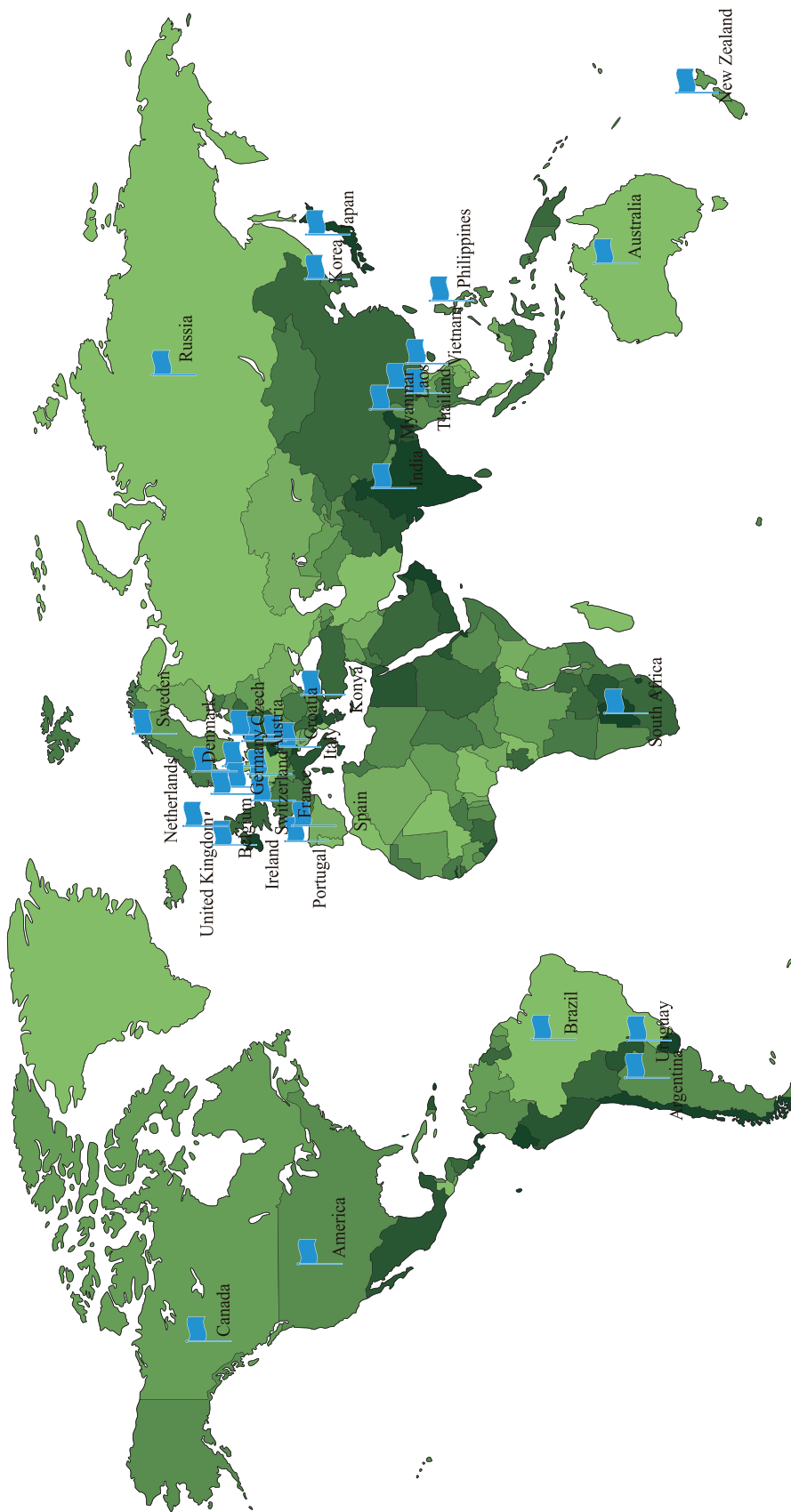


▲ Strategic Cooperation Agreement with Ji County Government



▲ Signed Memorandum with IDDRI

■ International Exchange and Cooperation



6.Support for the Introduction of National Planning, Policy and Standards 2015

- The Action Plan for Prevention and Control of Water Pollution (Issued by the State Council)

- Beijing-Tianjin-Hebe Collaborative Development of Ecological Environmental Protection Planning (Issued by NDRC)

- "13th Five-Year" Outline for Heavy Metals and Toxic Chemicals Pollution Prevention and Control Plan (Draft for Comments)

- Environmental Tax Law of the People's Republic of China (Draft for Comments)

- Reform Pilot Program for Ecological Environmental Damage Compensation Regulation (Issued by General Office of the State Council)

- Notice on Regulating the Administration of Judicial Authentication in Environmental Damage (Issued by Ministry of Justice and MEP)

- Suggestions on Carrying Out the Environmental Policy of the Main National Function Zone (Issued by MEP)

- Suggestions for the Administration of Rural Environmental Infrastructure Operation by Incentives to Promote Governance (Issued by MEP)

- Comprehensive List of Environmental Protection 2015 (Issued by MEP)

- System Implementation Plan for the Leader of Environmental Protection (Issued by Ministry of Finance)

- Notice on Collecting Consumption Tax of Battery and Paint (Issued by Ministry of Finance)

- Implementation Opinions on Cooperation of Government and Social Capital in the Field of Water Pollution Prevention Control (Issued by Ministry of Finance)

- Guideline for the Preparation of the National Ecological Civilization Demonstration Villages and Towns (Issued by MEP)

7.Achievements

Research Awards

- Research on National Ecological Compensation Methods and Policy Mechanism and Application, Award for Environmental Protection Science and Technology Advance (Ministerial level) , Top Prize.
 - Post-Disaster Environment Safety Assessments and Countermeasures for Wenchuan Major Earthquake, Award for Environmental Protection Science and Technology Advance (Ministerial level) , Top Prize.
 - Research on Key Technologies for Environment Binding Indicators, Award for Environmental Science and Technology Advance (Ministerial level)) , 2nd Prize.
 - Remote Sensing Monitoring Technology System and Application for National Scale Point Source Pollution Control, Award for Environmental Science and Technology Advance (Ministerial level) , 2nd Prize.
 - Research on Thoughts and Counter-policies for Chemicals Environment Risks Control, Award for Environmental Protection Science and Technology Advance (Ministerial level) , 3rd Prize.
 - Comparative Analysis on the Environment Pollution Features in Different Economic Regions and Strategy for Environment Quality Improvement, Award for Environmental Protection Science and Technology Advance (Ministerial level) , 3rd Prize.
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Published Books

- Theory and Methodology for Environment Performance Evaluation
- Theory and Methodology for the Development of Baseline and Standard for Soil Environment Quality in China
- IEUBK Model and Its Prospect for Application in China
- Properties of Soil Particle Size Fractions and Their Contribution on Fate and Transport of Hormones in Soil Environment
- Theoretical Methodology and Application Guidance for QUAL2K River Quality Simulation Modeling
- The Optimization of Environmental Investment Accounting System and Establishment of Performance Evaluation System
- The Key Policies and Measures for Environmental Industrial Development
- Environment Performance Assessments of Listed Companies
- The Environmental and Economic Prediction for Overall Moderately Developed Society
- Scientific Progress and Pollution Reduction
- Key Technologies for Evaluating and Examining the Implementation of National Environmental Plans

-
- Mechanism and Policies for Rural Water Pollution Control
 - Theories and Practices of Ecological Compensation in Basins
 - Research Progress of Environmental Economy (9th Volume)
 - Measuring the Feasibility of Environmental Industrial EGSS in China
 - Environmental Tax In China: A Scheme Design and Its Effect Analysis
-



New Practical Patents

- A Type of Self-oscillated and Center Fixed Microporous Aerator
- A Type of Sampling Device for Amphibious Soil and Groundwater
- A Type of Device Applicable for Agro-driven Well to Restore Contaminated Groundwater
- A Type of Restoration Device for Contaminated Karst Water
- Mobile Professional and Comprehensive Drilling Machine for Soil Recovery
- A Type of Caterpillar Sampling Device for Soil and Groundwater
- A Type of Highly Efficient Aerated Device for In-situ Remediation of Groundwater
- A Type of Purification and Remediation System for Rain Water Conservation
- A Type of In-situ Purification and Remediation System for Rain Water

Software Copyrights

- Institutional and Human Resources Reporting System V1.0
 - Simulation System for Medium and Long-term Environmental and Economic Prediction V1.0
 - Report System for High-level Talents with Special Skills V1.0
 - Ecological and Environmental Cost Accounting System for the Development and Utilization of National Rare Earth Resources V1.0
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o Environmental and Economic Information System for Development and Utilization of National Rare Earth Resources V1.0

o Data Center System for Watershed Management in China V1.0

o Simulation Model Software for the Water Quality of One-dimensional Rive Network [abbr.:QUAL-RN] V1.0

o Model Software for Load Analysis in Key Watersheds [abbr.:CN-SPARROW] V1.0



Internal Publications

► The Chinese Reference for Environmental Decision-making (in Chinese)

is the policy consultation report produced by CAEP based on the special theme research, targeting at major environmental issues, formulation of environment planning and policy. 23 issues were published in 2015.

► The Chinese Environmental Policy Research Working Paper (in English)

is a internal publication produced by CAEP for the purpose of facilitating the academic exchange with foreign colleagues on research results on environmental policies and lessons learnt in the implementation of such policies. 3 issues were published in 2015.



Published Essays

CAEP published 248 articles, among which 14 are chosen by SCI, 11 articles by EI and over 140 were chosen by Chinese core periodicals.

B Cai, J Liu, Z Ni, et al. Evaluating the impact of odors from the 1955 landfills in China using a bottom-up approach. [J]. *Journal of Environmental Management*, 2015, 164:206-214.

L Liu, Gregory Leamon. A large national survey of public perceptions of CCS technology in China. [J]. *Applied Energy*, 2015, 158:366-377.

Q Liang, M Liu, L Liu. Positioning and revision of CCUS technology development in China. [J]. *International Journal of Greenhouse Gas Control*, 2015, 4:282-293.

R Ma, T Zhang, S L Barter-Hunt. Influence of Soil Properties and Test Conditions on Sorption and Desorption of Testosterone. [J]. *Journal of Environmental Engineering*, 2015, 141(7).

J Gao, Z Yuan, X Liu, et al. Improving air pollution control policy in China—A perspective based on cost-benefit analysis. [J]. *Science of the Total Environment*, 2015, 543(Pt A):307-314.

H Li, Z Dong, Q Weng, et al. Emerging Pollutants – Part I: Occurrence, Fate and Transport. *Water Environment Research*, 2015, 87(10):1994-2035(42).

Y Chen, K Zhao, Y Wu, et al. Spatio-temporal patterns and source identification of water pollution in Lake Taihu. [J]. *Water*, 2016, 8(3).

W Zhang, J Wang, B Zhang, et al. Can China comply with its 12th five-year plan on industrial emissions control: a structural decomposition analysis. [J]. *Environmental Science & Technology*, 2015, 49(8):4816-24.

J Wang, J Zhang, H Jiang, et al. API-based assessment on urban air environment bearing capability in China. [J]. *Frontiers of Environmental Science & Engineering*, 2014, 9(6):1049-1055.

Q Meng, J Zhang, Z Zhang, et al. Influence of ore deposits on river sediment compositions in Dan River Drainage, China. [J]. *Journal of Geochemical Exploration*, 2016, 159:8-19.

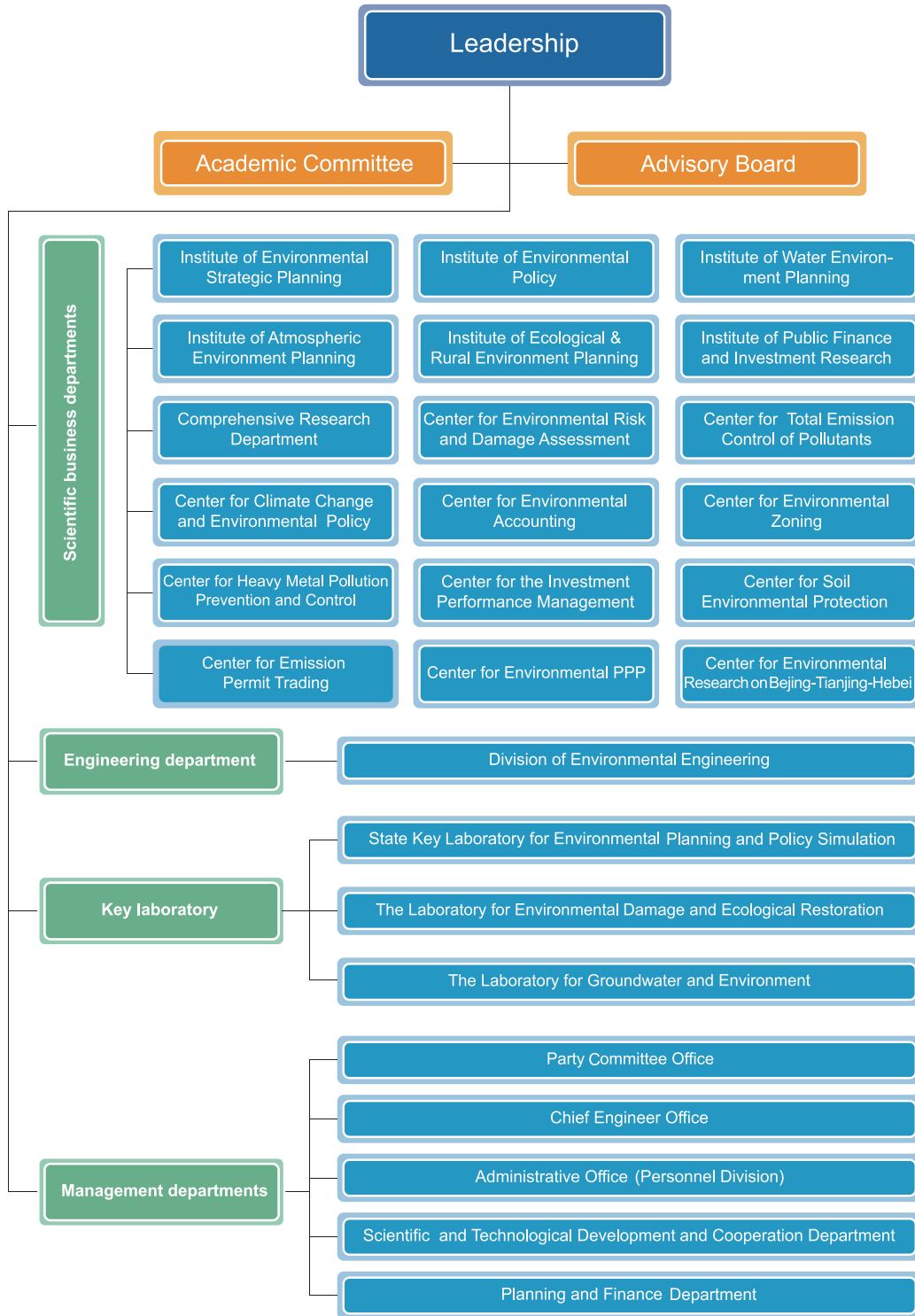
W Wu, J Wang, J Bi, et al. Understanding aqueous trace metal characteristics from industrial sources in China. [J]. *Water Policy*, 2015, 17(5):791-803.

S Yu, H Jiang, M Chang. Integrated prediction model for optimizing distributions of total amount of water pollutant discharge in the Songhua River watershed. [J]. *Stochastic Environmental Research & Risk Assessment*, 2015:1-9.

J Su, X Wang, S Zhao, et al. A Structurally Simplified Hybrid Model of Genetic Algorithm and Support Vector Machine for Prediction of Chlorophyll a in Reservoirs. [J]. *Water*, 2015, 7(4):1610-1627.

C Qin, J Wang, C Ge, Y Duan, et al. Tian Assessing the economic impact of China's carbon tax policy through a static computable general equilibrium analysis. *Sustainable Development*, 2016, 624-643.

8. Structure





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