

**SCIENTIFIC COOPERATION**

**Environmental Protection**

**Memorandum of Understanding  
Between the  
UNITED STATES OF AMERICA  
and CHINA**

Signed at Cincinnati June 25, 2012

*with*

Annex



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89—497, approved July 8, 1966  
(80 Stat. 271; 1 U.S.C. 113)—

“ . . .the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof.”

**CHINA**

**Scientific Cooperation: Environmental Protection**

*Memorandum of understanding  
signed at Cincinnati June 25, 2012;  
Entered into force June 25, 2012.  
With annex.*

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE ENVIRONMENTAL PROTECTION AGENCY  
OF THE UNITED STATES OF AMERICA  
AND  
THE MINISTRY OF SCIENCE AND TECHNOLOGY  
OF THE PEOPLE'S REPUBLIC OF CHINA  
ON SCIENTIFIC AND TECHNICAL COOPERATION  
IN THE FIELD OF ENVIRONMENTAL PROTECTION**

The Environmental Protection Agency of the United States of America (EPA) and the Ministry of Science and Technology of the People's Republic of China (MOST), hereinafter referred to as the "Parties;"

In accordance with and subject to the Agreement Between the Government of the United States of America and the Government of the People's Republic of China on Cooperation in Science and Technology, dated January 31, 1979, as extended and amended (the "S&T Agreement");

In order to promote scientific and technical cooperation and collaboration in the field of environmental protection;

Noting the Memorandum of Understanding signed on October 10, 2010, between the EPA and the Ministry of Environmental Protection of the People's Republic of China;

Have agreed as follows:

**Article 1**

The Parties shall conduct cooperative activities under this Memorandum of Understanding (MOU) on the basis of equality, reciprocity, and mutual benefit.

**Article 2**

Scientific and technical cooperation in the environmental field undertaken pursuant to this MOU may involve the following areas:

1. Sustainability Science and Technology
  - a. Life cycle analysis and assessment
  - b. Molecular design for reduced hazard
  - c. Green chemistry and predictive toxicology
  - d. Green engineering
  - e. Clean Manufacturing
  - f. Green communities and green buildings operations

2. Environmental Protection in Transportation
  - a. Controls on pollution and emissions of mobile origins
  - b. Clean Vehicles Technologies
3. Pollution
  - a. Human health and ecological risk assessment
  - b. Air pollution prevention and control technologies
  - c. Risk-based decision making related to environmental protection
  - d. Pollutant monitoring and monitoring methodologies, including data quality management.
4. Waste Management and Resource Reclamation
  - a. Mining and smelting waste management
  - b. Life cycle approaches to manage used and waste electric and electronic devices; and
  - c. Technologies for efficient and sustainable resource reclamation from such wastes.
5. Other Areas
  - a. Watershed management and water and wastewater treatment technologies
  - b. Urban environmental management support systems
  - c. Climate change
  - d. Circular economy
  - e. Food safety related to pesticide use
  - f. Ecological risk assessment and ecosystem services valuation
  - g. Other areas as determined by the Parties

### Article 3

Cooperation under this MOU may include the following forms:

1. Exchange or transfer of scientific and technical information in the field of environmental protection;
2. Joint organization of symposia, seminars, workshops, and training;
3. Study tours, exchanges, and temporary assignments of personnel from one Party to the other;
4. Joint scientific publications;
5. Joint projects to demonstrate environmental management approaches and technologies;
6. Cooperative research on subjects of mutual interest;
7. Provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes subject to the laws and regulations of both countries; and
8. Other forms of cooperation as may be determined by the Parties.

#### Article 4

The Parties shall encourage and facilitate the development of direct contacts between environmental and scientific groups from each country, including through the coordination of cooperation among government agencies, research institutions, business and industry, universities, and other entities, in conducting activities under this MOU as mutually agreed by the Parties.

#### Article 5

The Parties shall develop annexes to the MOU for selected major areas of cooperation. Each annex shall outline the subject and form of cooperation and shall be deemed an integral part of the MOU. Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies, and work plans as mutually agreed in writing by the parties.

#### Article 6

1. The Parties hereby establish a Joint Working Group on Environmental Research (JWGER). The JWGER will be co-chaired at the level of Assistant Administrator of the EPA and at the level of Vice Minister of the MOST, or their designees.
2. All working groups and sub-committees pertaining to environmental research established by the Parties under this MOU will be guided by the JWGER.
3. The Co-chairs, by mutual agreement, may determine the remaining composition of the JWGER and the entities that may attend or participate in JWGER meetings and may establish additional sub-committees or working groups as determined to be necessary to effectively implement this MOU. The specific structures and responsibilities of the sub-committees or working groups, and any modifications thereto, shall be determined by the JWGER.
4. The JWGER will meet at least once every two years. Such meetings shall be held alternately in the United States of America (USA) and the People's Republic of China (PRC). Prior to each meeting of the JWGER, the Parties shall agree to a meeting agenda. The Parties will endeavor to place items on the agenda which cover a wide range of relevant issues such as technical exchange, informational exchange, scientific research, and environmental science and technology policy.
5. Each Party will designate a Liaison Secretary. The Liaison Secretary for the EPA shall be the Deputy Assistant Administrator for International and Tribal Affairs, and the Liaison Secretary for MOST shall be at the Deputy Director General level, or their

designees. The Liaison Secretaries shall serve as the points of contact for their respective Parties for the JWGER and shall supply administrative support for meetings of the JWGER.

#### Article 7

1. All activities undertaken pursuant to this MOU shall be subject to the applicable laws and regulations of the Parties, as well as the availability of appropriated funds, personnel, and other resources of each Party. Nothing in this MOU, in and of itself, obligates either party to expend appropriations or to enter into any contract, assistance agreement, or interagency agreement, or incur other financial obligations. Each Party agrees not to submit a claim for compensation for services rendered to the other in connection with any activities it carries out in furtherance of this MOU. Any transaction involving reimbursement or contribution of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements.

2. This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not a Party to this MOU, against the Parties, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of the Parties.

#### Article 8

The treatment of intellectual property created or furnished in the course of activities under this MOU, the allocation of rights of such intellectual property, and business-confidential information obtained and/or exchanged pursuant to this MOU, will be governed by the provisions of Annex I (Intellectual Property) of the S&T Agreement.

#### Article 9

Both Parties agree that no information or equipment requiring protection in the interest of national defense or foreign relations and classified in accordance with its applicable national laws and regulations shall be provided under this MOU. In the event it is subsequently discovered that information or equipment which is known or believed to require such protection is identified as having been furnished inadvertently in the course of cooperative activities pursuant to this MOU, the matter shall be brought immediately to the attention of the appropriate officials and the Parties shall consult to identify appropriate security measures to be agreed upon by the Parties, in writing, and applied to this information and equipment.

#### Article 10

Article 10

The transfer of unclassified export-controlled information or equipment between the Parties shall be in accordance with the relevant laws and regulations of each Party. If either Party deems it necessary, detailed provisions for the prevention of unauthorized transfer between the Parties or retransfer to a third party of such information or equipment shall be incorporated into the appropriate project agreements or work plans. Such information or equipment shall be marked to identify it as export controlled and the Parties shall consult to identify appropriate restrictions or other requirements regarding the transfer of this information or equipment.

Article 11

1. This MOU shall enter into force upon signature and shall remain in force for five (5) years, or for as long as the S&T Agreement remains in force, whichever is shorter. Either Party may terminate this MOU upon six months' prior written notification, through diplomatic channels, to the other Party. Such termination shall be without prejudice to the rights that may have accrued to either Party under Annex I to the S&T Agreement. The Parties shall consult regarding the effect of termination on the implementation of ongoing programs and activities agreed to under the MOU prior to the date on which notice of termination was given.

2. Either Party may request in writing, through diplomatic channels, to amend or modify this MOU. Any amendment or modification must be mutually agreed upon in writing by the Parties.

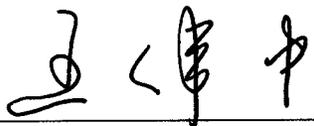
DONE at Cincinnati on this 25 day of June, 2012, in duplicate in the English and Chinese languages, both texts being equally authentic.

FOR THE ENVIRONMENTAL  
PROTECTION AGENCY OF THE  
UNITED STATES OF AMERICA

FOR THE MINISTRY OF SCIENCE  
AND TECHNOLOGY OF THE  
PEOPLE'S REPUBLIC OF CHINA



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ANNEX 1  
Sustainability Science and Technology

Article 1  
Authority

1. This annex to the Memorandum of Understanding (MOU) between the Environmental Protection Agency of the United States of America (EPA) and the Ministry of Science and Technology of the People's Republic of China (MOST) on Scientific and Technical Cooperation in the Field of Environmental Protection sets forth a framework for scientific and technical cooperation on sustainability science and technology.
2. Under this annex, agreements related to project activities, including those pertaining to financial and other relevant issues, will be developed by participating institutions. These project agreements shall be negotiated and executed by duly authorized representatives of implementing institutions.

Article 2  
Scope

Project activities under this annex may include, but are not limited to, work in the following areas:

1. design and development of new tools, methods, and models for the advancement of molecular design of substances that are less intrinsically hazardous to humans and the environment;
2. life-cycle tools to enable the design and assessment of environmentally benign technologies;
3. new methods in Green Chemistry and Engineering;
4. development of tools for sustainable materials management; and
5. conceptual models and frameworks that allow for the valuation of ecosystem services.

Article 3  
Forms of Cooperation

Cooperation under this annex may include, but is not limited to, the following forms:

1. transfer or exchange of scientific and technical information in the field of environmental protection;
2. joint organization of symposia, seminars, workshops and training;

3. study tours, exchanges, and temporary assignments of personnel from one Party to the other;
4. joint scientific publications;
5. joint projects to demonstrate environmental management approaches and technologies;
6. development of data quality management plans for data to be collected by joint projects;
7. cooperative research on subjects of mutual interest;
8. provision of samples, reagents, materials, data, instruments and components for testing, evaluation and other purposes subject to the laws and regulations of both countries; and
9. other forms of cooperation as may be determined by the Parties.

#### Article 4 Projects

Specific cooperative activities and the terms under which they will be conducted, including financial arrangements, shall be described in project agreements, strategies, and work plans.

#### Article 5 Designation of Management Officials

1. Management Officials administering activities under this annex will work with participating institutions to facilitate implementation of project agreements, strategies, and work plans.
2. The Management Officials for the United States shall be the Deputy Assistant Administrator for Science for the EPA Office of Research and Development and the Deputy Assistant Administrator for the EPA Office of International and Tribal Affairs.
3. The Management Officials for China are the Deputy Director General of Department of Social Development, MOST, and the Deputy Director General of Department of International Cooperation, MOST.
4. Each Party may designate a replacement Management Official at any time upon written notice to the other Party.

**美利坚合众国环境保护局**  
**和**  
**中华人民共和国科学技术部**  
**环境保护领域科学技术合作**  
**谅解备忘录**

美利坚合众国环境保护局和中华人民共和国科学技术部(以下称“双方”),

根据并遵循 1979 年 1 月 31 日签署并于 2011 年续期和修订的《美利坚合众国政府和中华人民共和国政府科学技术合作协定》(以下简称《科技协定》);

为加强在环境保护领域的科学技术合作;

同时注意到 2010 年 10 月 10 日美利坚合众国环境保护局和中华人民共和国环境保护部签署的环境领域科学技术合作谅解备忘录;

达成一致如下:

**第一条**

双方在平等与互惠互利的基础上,在本备忘录的框架下开展合作活动。

## 第二条

根据本备忘录，在环境领域开展的科学技术合作可包括以下领域：

1. 可持续的科学与技术
  - A. 全生命周期分析与评估
  - B. 减少危害的分子设计
  - C. 绿色化学与预测性毒理学
  - D. 绿色工程
  - E. 清洁制造
  - F. 绿色社区与绿色建筑运营
2. 交通环保
  - A. 车辆污染与排放控制
  - B. 清洁汽车技术
3. 污染
  - A. 人类健康和生态风险评估
  - B. 空气污染防控技术
  - C. 与环境保护有关的风险决策
  - D. 污染物监控和监控方法，包括数据质量管理
4. 废弃物管理与资源回收
  - A. 矿产和熔炼废物的管理
  - B. 利用全生命周期方式管理废旧电动和电子器件
  - C. 上述废弃物的高效、可持续资源回收技术

- 5. 其它领域
  - A. 水域管理、水及废水处理技术
  - B. 城市环境管理支持系统
  - C. 气候变化
  - D. 循环经济
  - E. 与使用杀虫剂相关的食品安全
  - F. 生态风险评估与生态系统服务价值评价
  - G. 双方决定的其它领域

### **第三条**

本备忘录下的合作可以包括以下形式：

- 1. 交流或交换环保领域的科学技术信息；
- 2. 联合组织学术会议、讨论会、专题研讨会和培训；
- 3. 学习考察、交流和双方人员的短期交换；
- 4. 联合出版科学出版物；
- 5. 开展环境管理方法和技术的合作示范项目；
- 6. 对共同感兴趣的课题开展合作研究；
- 7. 遵从两国有关法律规章，提供用于测试、评估和其他目的样品、试剂、原料、数据、仪器和部件；
- 8. 双方决定的其它合作形式。

#### **第四条**

双方将鼓励两国的环境及科学团体开展根据本备忘录议定经双方同意的直接交流，并对这些交流给予协助，这些交流包括政府部门、研究机构、工商企业、大学院校和其它机构之间的配合和活动。

#### **第五条**

双方将就所选择的主要合作领域制订本备忘录的附件。每个附件将说明合作主题和形式，并被视为本备忘录的组成部分。今后确定的具体合作活动和实施条款，包括资金安排等，应在双方书面同意的项目协议、战略和工作计划中列出。

#### **第六条**

1. 双方将建立环境研究联合工作组（以下简称联合工作组）。美利坚合众国环境保护局助理局长级别官员和中华人民共和国科学技术部副部长级别官员，或他们指定的代表将担任工作组联合主席。

2. 由双方在本备忘录下建立的有关环境研究的所有分工作组或分委员会将受联合工作组的指导。

3. 联合主席经协商可以决定联合工作组的其他成员及可能出席或参加联合工作组会议的单位。当认为对有效执行本备忘录有必要时，也可建立另外的分委员会或分工作组。

分委员会或工作组的具体结构与职责以及任何更改应由联合工作组决定。

4. 联合工作组至少每两年举行一次会议。会议将在美利坚合众国（美国）和中华人民共和国（中国）轮流举行。在每次联合工作组会议前，双方将同意会议的议事日程。双方将努力把诸如技术交流、信息交流、科学研究和环境科技政策等广泛议题列入议程。

5. 各方将任命一名联络秘书。联络秘书由美国环保局负责国际与部落事务的助理局长帮办和中国科技部副司长级别官员，或他们指定的代表担任。联络秘书将担任联合工作组的本方联系人，为联合工作组会议提供行政支持。

## **第七条**

1. 根据本备忘录开展的所有活动应遵守各方适用的法律规章，并视所能获得的拨款经费、人力以及其它资源而定。本备忘录本身及其内容并未要求任何一方支付款项或签署任何合同、辅助协议或跨部门协议，或产生其它出资义务。双方同意不提出在推进本备忘录过程中任何与该方开展活动相关的、向对方提供服务的补偿要求。任何涉及本备忘录双方之间报销或出资的业务将根据适用法律、法规和另行书面协议下的程序进行。

2. 本备忘录未对不属于本备忘录签约一方的人员提供任

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### **第八条**

本备忘录下活动过程中所创造或提供的知识产权及其权利分配，以及根据本备忘录获取和/或交换的商业秘密的处置，按《科技协定》附件一（知识产权）规定管理。

### **第九条**

双方同意在本备忘录下，各方不得向对方提供因国防或对外关系利益而受到保护的，以及被各方的适用国家法律规章定为机密的信息和设备。本备忘录下合作过程中，如随后发现无意中提供的信息或设备需要保护，应立即通知各方有关官员，双方将协商并以书面形式确定适当的安全措施，并将其应用于上述信息和设备。

### **第十条**

双方间转让非保密但受出口管制的信息和设备，将根据各方的法律规章进行。若其中任一方认为有必要，有关项目协议或工作计划将列入详细条款，以防止此类信息和设备在未经授权的双方面转让或再转让至第三方。应对此类信息或

设备加以标识以确认其受出口管制。双方应进行磋商以确定有关转让此类信息或设备的适当限制或其他要求。

### 第十一条

1. 本备忘录自签字之日起生效，有效期五年或与《科技协定》有效期相同，以有效期短的文件为准。任何一方可提前六个月以书面形式通过外交渠道通知对方终止本备忘录。本备忘录的终止并不损害各方在《科技协定》附件一下可能享有的权利。在发出书面终止通知书之前，双方将就本备忘录下进行的活动和项目终止产生的影响进行协商。

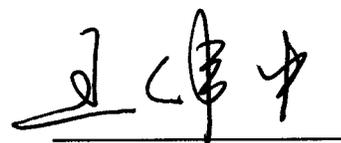
2. 任何一方可以书面形式通过外交渠道要求对备忘录进行修正或修改。任何修正和修改须经双方以书面形式一致同意。

本备忘录于二〇一二年六月25日在辛辛那提签署，一式两份，分别用英、中文写成，两种文本具有同等效力。

美利坚合众国  
环境保护局



中华人民共和国  
科学技术部



## 附件一、可持续发展的科学与技术

### 第一条

#### 权限

1. 美利坚合众国环境保护局（以下简称环保局）与中华人民共和国科学技术部（以下简称科技部）环境保护领域科学技术合作谅解备忘录（以下简称备忘录）的附件旨在建立双方在可持续发展的科学与技术领域合作框架。

2. 在本附件框架下，参加单位将就项目活动包括经费和其它相关事项达成协议。这些项目协议将由正式授权的实施机构代表进行磋商和执行。

### 第二条

#### 范围

本附件下的项目活动可包括，但不限于以下领域的工作：

1. 设计和开发新的工具、方法和模式，以促进对于人类和环境内在危害较小的物质的分子设计；
2. 运用生命周期工具设计和评估环保技术；
3. 开发绿色化学和工程新方法；
4. 开发可持续发展的材料管理工具；
5. 为生态系统服务评价制定概念模式和框架。

### **第三条**

#### **合作形式**

本附件下的合作包括但不限于以下形式；

1. 交流或交换环保领域的科学技术信息；
2. 联合组织学术会议、讨论会、专题研讨会和培训；
3. 学习考察、交流和双方人员的短期交换；
4. 联合出版科学出版物；
5. 开展合作项目示范环境管理的方式和技术；
6. 为合作项目收集数据制定数据质量管理计划；
7. 对共同感兴趣的课题开展合作研究；
8. 遵从两国有关法律规章，提供用于测试、评估和其它目的样品、试剂、原料、数据、仪器和部件；
9. 双方决定的其它合作形式。

### **第四条**

#### **项目**

具体合作活动及条款，包括经费安排，应在项目协议、战略和工作计划中列出。

### **第五条**

#### **管理官员选派**

1. 本附件下活动的管理官员将与参与机构共同工作，为落实项目协议、战略和工作计划提供方便。
2. 美国方面的管理官员为美国环保局研发办公室负责

科学事务的助理局长帮办和国际与部落事务办公室助理局长帮办。

3. 中国方面的管理官员为中国科技部社会发展科技司副司长和国际合作司副司长。

4. 各方可以随时任命一名替代管理官员，并以书面形式通知另一方。