



中欧水利科技合作建议

Preliminary Proposal for China-EU Water Resources Science and Technology Cooperation

水利部国际经济技术合作交流中心

**International Economic & Technical Cooperation and
Exchange Center, Ministry of Water Resources(MWR)**

2019年4月24日

April 24, 2019

• 中国-欧盟水政策对话机制第一次会议（4月2日）

The first meeting of the China-EU Water Policy Dialogue(April 2)

- 就加强中欧水利科技创新合作达成重要共识
Reached important consensus on strengthening China-EU scientific and research innovation cooperation in water resources
- 组建顶级科研团队
To form a top research team
- 协同推进中欧水资源旗舰项目的立项
Jointly applied for China-EU water flagship project
- 联合开展水领域科技攻关
Jointly carried out scientific research in the water field



背景Background

• 中欧水利科技合作项目申报工作方案研讨会（4月12日） Seminar on the Work Plan for the Declaration of China-EU Water Resources Science and Technology Cooperation Project (April 12)

介绍水利发展政策和规划water development policies and plans

- 水利部相关业务司局by Related business departments & bureaus of MWR

介绍与欧洲伙伴合作情况及对未来合作的建议cooperation with EU partners and suggestions for future cooperation

- 7家科研机构+6家高校by 7 research institutions + 6 universities

初步识别旗舰项目主要领域Initially identified key areas of flagship project

- 与会代表会议讨论 Discussion by delegates

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中方科研联盟 Chinese Research Alliance



建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

考虑的因素

Factors to be considered

可持续发展目标
治水目标
SDGs
Water control
goal

中方优势领域、
技术和意向
Chinese
advantages,
technologies and
intentions

中国科技部关于
国际科研项目
申报要求
MOST 's
requirements

欧方优势领域、
技术和意向
EU advantages,
technologies and
intentions

建议的科技合作主要领域

Proposed Areas of Science and Technology Cooperation

1、智慧水利建设 Smart water construction

- 水资源自动监测监控体系顶层设计 the top-down design of automatic monitoring system for water resources,,.
- 先进的监测技术和仪器设备研发 the R&D of advanced monitoring technology and equipment,
- 卫星遥感、通信网络、无人机、大数据等现代技术装备和手段的充分利用 the sufficient utilization and research of modern technology equipment and means, such as satellite remote sensing, communication network, drones and big data
- 多系统数据融合关键技术 the development of multi-system data integration
- 流域水质水量模拟仿真分析模型开发等 simulation & analysis models for the water quality and yield of river basins

建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

2. 河流湖泊健康评价与水生态修复 River and lake health assessment and aquatic ecological restoration

- 河流健康和生态评价体系的建立 establishment of river health and ecological assessment systems
- 河湖生态清淤及黑臭水体底泥处置技术 technologies for the ecological dredging of rivers and lakes and disposal of bottom sediments in black and odorous water bodies
- 河湖污染底泥监测评价技术与标准 technologies and standards for the monitoring and assessment of polluted bottom sediments in rivers and lakes
- 入河湖营养盐控制及蓝藻水华防控 control of nutrient salt and blue-green algae water blooms in rivers and lakes
- 城市湖泊生态修复 the ecological restoration of urban lakes

建议的科技合作主要领域

Proposed Areas of Science and Technology Cooperation

3.地下水管理Groundwater management

- 地下水数值模拟技术与软件开发numerical simulation technologies for groundwater and software development
- 地下水监管指标研究groundwater monitoring indicators
- 地下水动态分析评价技术研究dynamic groundwater analysis
- 地下水污染防治关键技术研究evaluation technologies of pollution of groundwater
- 地下水超采区监测预警评价系统开发development of a monitoring, warning and evaluation system in groundwater over-exploitation regions

建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

4. 气候变化条件下的水旱灾害管理 Flood and drought disaster management amid climate changes

- 气候变化条件下的水资源保障 the guarantee of water resources
- 洪水风险管理 management of flood risks
- 洪水资源化研究 research of flood resources
- 干旱指标体系的建立 establishment of drought indicator systems
- 高原脆弱地区生态监测 monitoring of vulnerable plateau regions amid climate changes

建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

5.水利关键技术设备Key water conservancy technologies and equipment

- 山洪地质灾害智能诊断和预警成套装备packaged equipment for the intelligent diagnosis and warning of mountain floods and geological disasters
- 成本低、质量可靠的小型污水处理成套设备low-cost, high-quality and small packaged equipment for sewage treatment equipment
- 水质水量数据采集设备water quality and yield data collection equipment
- 河湖内源污染原位消减成套技术,,, packaged technologies for in-situ reduction of internal source pollution of rivers and lakes
- 修复湖泊水体的纳米材料研发nanometer materials for the restoration of lakes

建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

6. 节水战略基础研究 Basic research on water saving strategy

- 探索政府、市场、公众多元协作的节水新路径 exploration of new energy-saving paths through multi-collaboration among the government, market and public
- 建立节水标准体系 establishment of water-saving standard systems
- 研发集成水资源高效循环利用先进技术 the research of advanced technologies for the efficient recycling of water resources
- 节水激励政策措施和多元化的节水投入机制 energy-saving incentive policies and measures as well as diversified energy-saving investment systems
- 节水、节能和智慧多元灌溉系统关键技术 key technologies for water-saving, energy-saving and smart diversified irrigation systems

建议的科技合作主要领域 Proposed Areas of Science and Technology Cooperation

7.基于自然 (NBS) 的城市水综合管理研究the comprehensive management and research of nature-based urban water resources

城市防洪减灾的生态设施技术；洪水调蓄能力提升、雨洪资源开发技术等ecological facilities and technologies for the prevention and control of floods and the relief of disasters in cities, the improvement of flood regulation and storage capabilities, technologies for the development of rainwater and flood resources

8.水-风-光多能互补系统开发development of water-wind-light complementary systems

水与能源的基础要素融合，水电与抽水蓄能两种方式的互补等the integration of water and basic elements of energy, the integration of water, photoelectricity and wind energy, the complementation between hydropower and pumped storage

9.绿色小水电开发green small hydropower

下一步工作建议

Suggestions for Next Step

- **中欧双方成立科研团队** Both sides set up research teams
- **明确牵头单位和联系人** Leading organization and contacts
 - 中方牵头单位：水利部国际经济技术合作交流中心
Leading unit of the Chinese side: INTCE, MWR
 - 中方联络人：孙岩 ysun@mwr.gov.cn
Contact person of the Chinese side : Sun Yan ysun@mwr.gov.cn
 - 欧方?
EU?

下一步工作建议 Suggestions for Next Step

• 建立日常磋商机制 Establish consultation mechanism

- 阶段性成果的反馈，如线上投票

Provide feedback on stage results, such as online voting

- 中方定期针对优先主题召集专家研讨

The Chinese side regularly convenes experts to discuss priority topics



下一步工作建议

Suggestions for Next Step



将水资源纳入地平线欧洲的重要优先领域
Incorporate water resources into key priority areas of Horizon Europe

将中欧水资源交流平台列为重要专项
List CEWP as an important special project



将水资源纳入中欧政府间科技计划重要优先领域
Integrate water resources into key priority areas of the China-EU Intergovernmental Science and Technology Plan

下一步工作建议

Suggestions for Next Step

LOT1

领域2: 河流湖泊健康评价与水生态修复
2: River and Lake Health Assessment and Water Ecological Restoration

白音Bai Yin
王富强Wang Fuqiang
陈端Chen Duan
许凤冉Xu Fengran

LOT2

领域3: 地下水管理
3: Groundwater Management

领域6: 节水战略基础研究
6: Water Saving Strategy

林锦
Lin Jin

LOT3

领域7: 基于自然(NBS)的城市水综合管理研究
7: Research on Urban Water Integrated Management Based on Nature

中规院
CAUPD

LOT4

领域8: 多能互补系统开发
8: Multi-energy Complementary System

领域9: 绿色小水电开发
9: Green Small Hydropower

王晓刚
Wang Xiaogang

LOT5

领域1: 智慧水利建设
1: Smart Water Construction

领域4: 气候变化下的灾害管理
4: Water Disaster Management

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感谢！

THANK YOU FOR YOUR ATTENTION!