中国水利

CHINA EUROPE Water Platform
www.cewp.org

EU-China Policy Dialogues Support Facility Ⅱ
中国-欧盟政策对话支持项目二期

A Report On Europe Internship
中欧水资源交流平台赴欧工作实习团汇报

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The Journey 行程

- 11.10-11.13 Gothenburg 哥德堡
- 11.14-11.25 Stockholm 斯德哥尔摩
- 11.26-11.28 Brussels 布鲁塞尔

Institutions we have visited

Government Agencies
政府机构

- DG Environment of European Commission
  欧盟委员会环境总署
- Swedish Ministry of the Environment
  瑞典环境部
- Swedish agency for marine and water management
  瑞典海洋与水管理局

Swedish Agency for Marine and Water Management

Institutions we have visited

International Research Institutions
国际性水政策研究机构

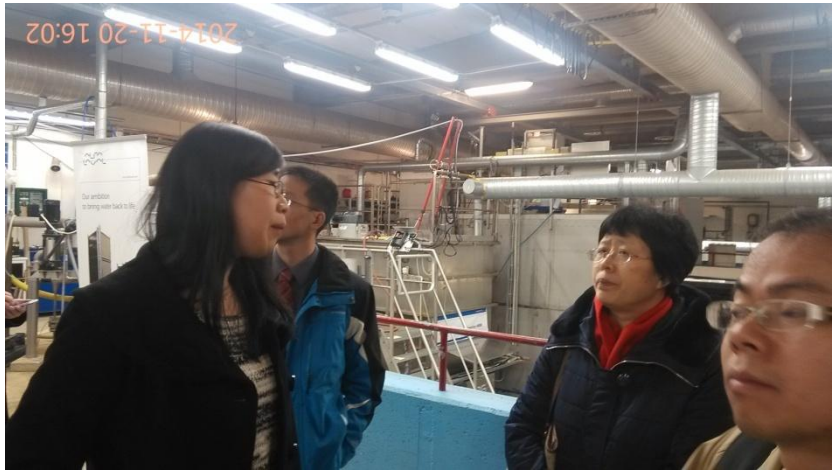
- Stockholm International Water Institute
  斯德哥尔摩国际水研究院
- SEI
  斯德哥尔摩国际环境研究院
- Global Water Partnership
  全球水伙伴
- Urban water
  城市水

Institutions we have visited

Local Research Institutions and University
瑞典本土研究机构和高校

- KTH Royal Institute of Technology
  瑞典皇家理工学院
- IVL
  瑞典环境科学研究院
- SP Technical Research Institute of Sweden
  瑞典技术研究院

Institutions we have visited



Conference Attended

THEME主题——

Water in the sustainable city

可持续城市中的水

- Experiences on inundation control， climate change adaptation, from London, New York, Seattle, Vancouver, Copenhagen, Dordrecht…
- We introduced the water management system in China, the most stringent water resources management system, climate adaption and urban water planning in Nanjing, during the visits and the conference.

了解了伦敦、纽约等城市水资源管理的做法和经验；介绍了中国的水资源管理体制和最严格水资源管理制度、南京市气候变化背景下的水资源管理、北京市水资源状况及水务管理等情况

What we have learnt from it

- Set clear and measurable objectives.

  Implement it by cooperation between different agencies, step by step
- 明确管理目标，建立定量指标体系。

  不同层级政府部门通力合作，分阶段逐步实施

16 Objectives for Environmental Quality in Sweden
瑞典：16项国家环境质量目标


Reduced Climate Impact


Clean Air


Natural Acidification Only


A Non-Toxic Environment


A Protective Ozone Layer


A Safe Radiation Environment


Zero Eutrophication


Flourishing Lakes and Streams


Good-Quality Groundwater


A Balanced Marine Environment,
Flourishing Coastal Areas and Archipelagos


Thriving Wetlands


Sustainable Forests


A Varied Agricultural Landscape


A Magnificent Mountain Landscape


A Good Built Environment


A Rich Diversity of Plant and Animal Life

The 3 Red Lines in China
中国：三条红线

What we have learnt from it

Economical instruments to improve water management efficiency.

- Fees,taxes,charges 收费
- Prices and Subsidies 价格和补贴
- Permit trading 许可证交易
- Payment for ecosystem services, PES
  生态系统服务有偿使用

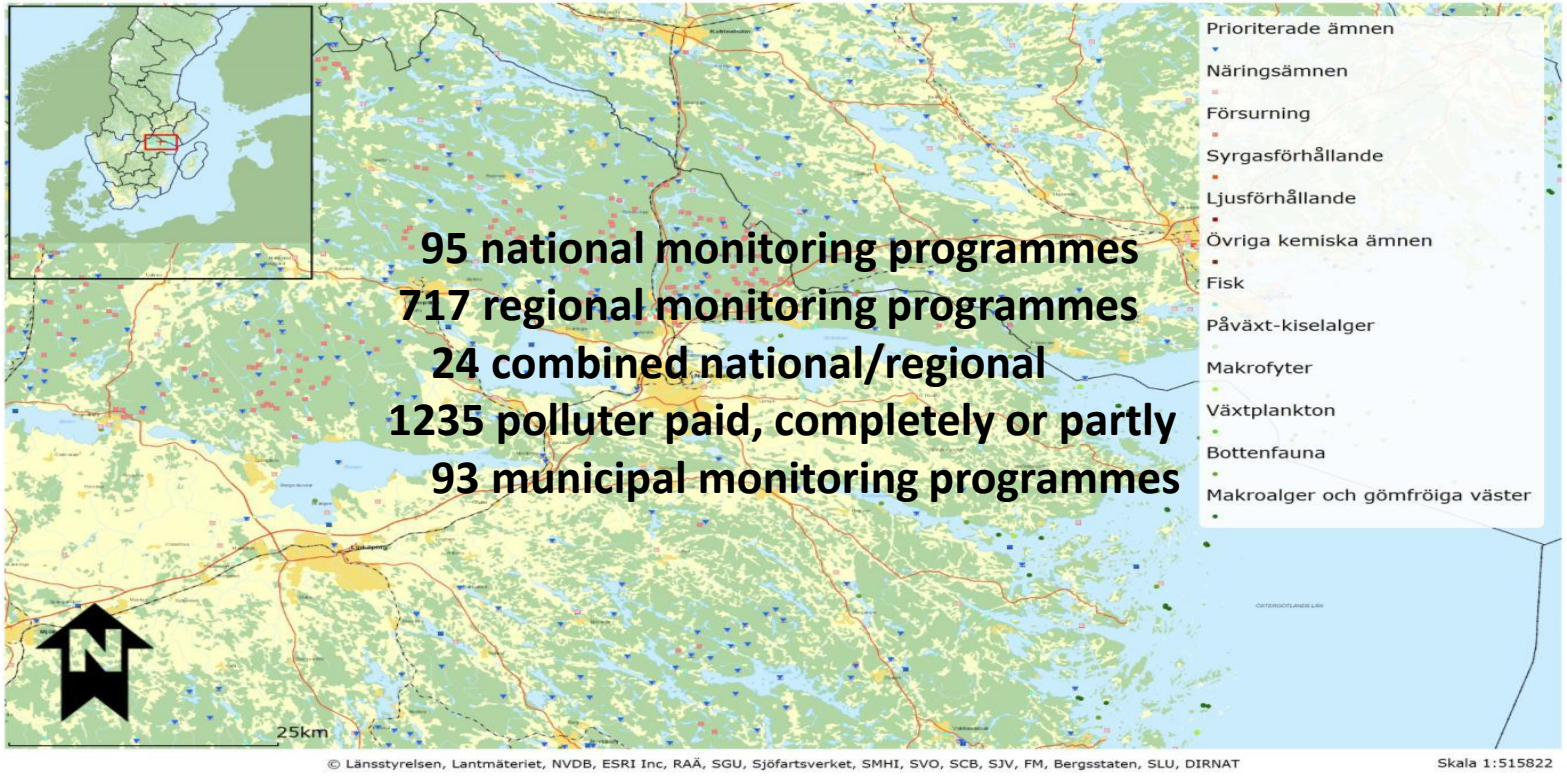
Water Permit Trading in China
中国的水权交易

- Some pilot programmes have been carried out in Ningxia, Inner Mongolia, where industries build irrigation canals for famers to get the right to take water from river.
- 近年在宁夏、内蒙等地开展了一些工业企业与农业用户（灌区）之间的许可证交易试点
- Limited area, small in scale, single form.
- 实施范围、交易规模有限，交易形式单一。

What we have learnt from it

High quality monitoring is essential to achieve good ecological status
强化监测评估，确保水管理任务目标落实到位

Monitoring



监测站点Monitoring stations ≈ 15 000

Water Monitoring in China
中国的水监测

China will build a large water monitoring network in the coming years, in order to facilitate the most stringent water management system. When finished，

- 8558 National monitoring stations
- 70% Permitted water abstraction
- 40% Actual water consumption
- 中国目前也建立了数量庞大的水质监测网络，为了保障实行最严格水资源管理制度需要，水利部启动了国家水资源监控能力建设项目，将建设8558个国家监测点，全部建成后可以监控70%的许可水量和近40%的实际用水量

What we have learnt from it

Promote technical research and innovation
加强技术研究和创新，为改善水管理提供基础支撑

- In 2014 the Swedish Government decided to make a special funding of research regarding new treatments at STPs to reduce the concentrations of pharmaceuticals and other emerging substances. 32 million SEK divided on 4 years.
- 2014年瑞典政府设立为期4年的资助计划，拨款3200万克朗，研究降低水体中的药品及其他新兴物质浓度。

Water technology in need
中国的水处理技术

- China also faces great challenge in wastewater treatment, involving expanding treatment volume, improving effluent quality and lowering costs.
- Water saving facilities in urgent need.
- 如何进一步加大污水处理规模、降低污水处理成本、提高污水处理水平是中国面临的重要课题；此外，中国对先进的节水技术和节水设备等也有迫切需求。

Proposals and Suggestions

- Try to implement the “3 red line system”

  e.g. ground water exploitation rate, wastewater treatment rate, water consumption quota…

- 进一步完善“三条红线”指标体系。补充提出相关指标，如地下水开采率、污水处理回用率、分行业用水定额等，作为水行政主管部门落实最严格水资源管理制度、推进某方面具体工作（如地下水保护、水污染治理、节水等）的目标，以保障最终“三条红线”控制目标的实现。

Proposals and Suggestions

- Promote permit trading experiment.

  Enlarge trial regions, sectors, ways and solutions.
  Complement the supervising system for permit trading.

- 积极推进水权交易试点。增加水权交易试点地区，扩大水权交易试点范围、探索多种形式的水权交易方式、健全完善水权交易监管制度。条件成熟后在全国其他地区推广实施。

Proposals and Suggestions

Enhance R&D on water technology

- Water saving technology for irrigation, industry etc.
- Waster water treatment technology regarding nitrogen removal, sludge disposal

加强技术研发和引进吸收创新。主要包括农业、工业节水技术和设备，污水处理技术等。

What we want to follow up

- Environment Quality Objectives System
  环境质量目标体系
- Water-Energy-Food Nexus
  水-能源-粮食纽带关系
- Permit Trading System
  水权交易制度
- Wastewater Treatment Technology
  污水处理技术

Thanks for you attention!