

# 中欧水资源平台（CEWP）--海绵城市及其他：应用“三点法”建设具有气候韧性的城市地区

## China-Europe Water Platform (CEWP) - Sponge Cities and beyond: Climate Resilient Urban Areas by application of the Three Points Approach



Time	Topic	Name
15:00 - 15:30	与会者入场、登记和就座 Walk in	登记、设施和翻译方面的组织援助
15:30 - 15:40 15:40 - 15:50	Welcome words 开幕致辞、欢迎辞和今天的目的 China Europe Water Platform (CEWP) Partnership Initiative介绍和视频	Mrs Jasmin Schous 女士 荷兰 Mrs Diana Carlos 女士 葡萄牙
15:50 - 16:00	对CEWP China Europe Cooperation on Sponge Cities (CECoSC) 合作的思考 成果、政策、指导与3PA白皮书的衔接	Mrs Natalie Oonk-Abrahams 女士 荷兰
16:00 - 16:30  16:30 - 16:40	Introduction White Paper Three Points Approach (3PA) emerged from CEWP CECoSC Policy Guidance: A proposal for EU/CN Future cooperation 导言 白皮书 3PA 由 CEWP CECoS 政策指导演变而来 欧盟/中国 未来的合作建议 休息	Mr Frans van de Ven 先生 荷兰
16:40 - 17:10	Reflection on the White Paper & Proposed future water cooperation between EU and China for Water and Urbanization under 3PA 10 分钟 PPT 回应白皮书及 3PA 提议下欧盟与中国未来在水与城市化方面的水合作建议 • NHRI • HRC • UU	Mr Wang Leizhi 博士 中国 Mr Zhi Yang 博士 中国 Mrs Dai Liping 博士 荷兰
17:10 - 17:30	Wrap-up and conclusions 总结与结论	Mr Klaas Groen 先生 荷兰

# 3. China Europe Cooperation on Sponge Cities

Mrs Natalie OONK-ABRAHAMS

Senior policy advisor International European Programs & EU Digitalisation  
Coordinator, Ministry of Infrastructure and Water Management, DG  
Rijkswaterstaat, the Netherlands



# CEWP PI Lot #3 水与城市化

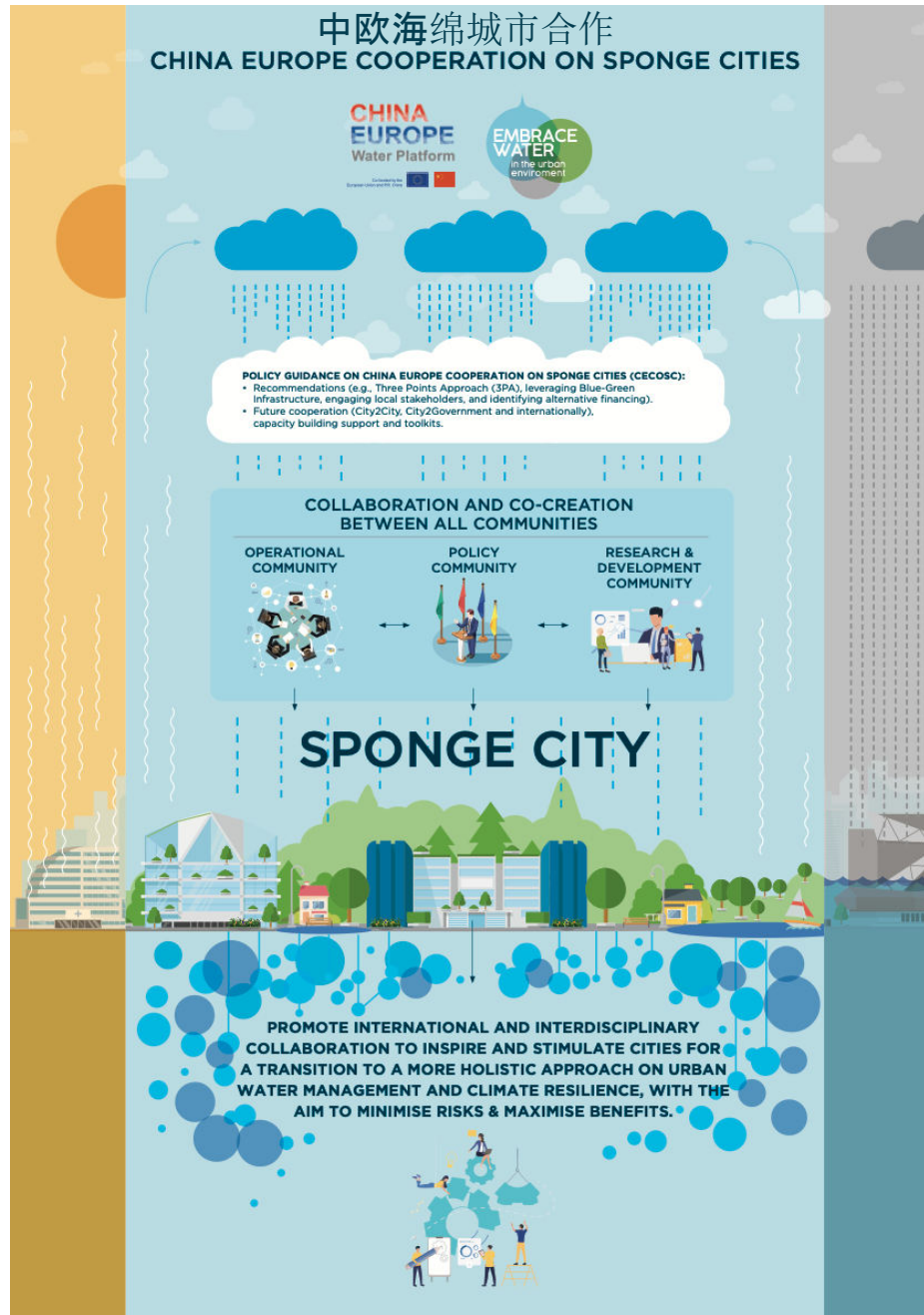
## CECoSC 合作伙伴



EU Partners	CN Partners
荷兰  Rijkswaterstaat Ministry of Infrastructure and Water Management	 中国城市规划设计研究院 CHINA ACADEMY OF URBAN PLANNING & DESIGN
丹麦  UNIVERSITY OF COPENHAGEN	 北京市水务局 BEIJING WATER AUTHORITY
芬兰  TURKU AMK TURKU UNIVERSITY OF APPLIED SCIENCES	
瑞典  Research Institutes of Sweden Onderzoeksinstituut	
合作城市 阿姆斯特丹、图尔库 哥本哈根、哥德堡	试点城市 北京 常德（湖南省）



# CHINA EUROPE Water Platform



Co-funded by the  
European Union and P.R. China



# CHINA EUROPE Water Platform



Co-funded by the  
European Union and P.R. China





### 中欧海绵城市合作（CECOSC）政策指南：

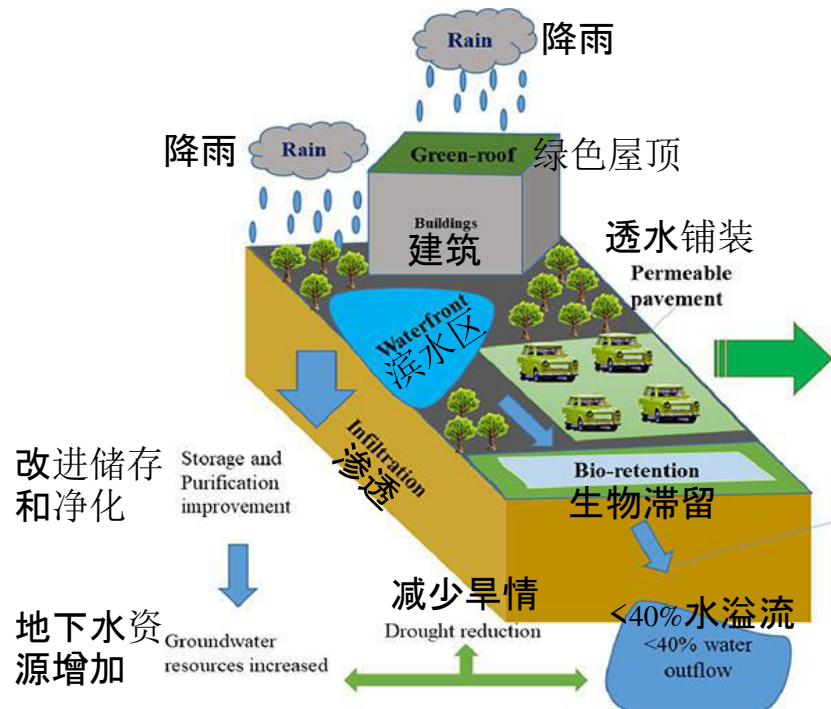
- 建议（例如，三点法（3PA）、利用蓝绿基础设施、让地方利益相关者参与、确定替代融资）
- 未来的合作（城市对城市、城市对政府和国际合作），提供能力建设支持和工具包





# CECoSC 项目：共同主题

如何充分利用我们在雨水管理方面的投资？



巨大而复杂的任务需要新技能、新技术和新产品

## 1. SCC 决策支持工具

=> 平衡蓝绿和灰色（传统）排水系统

## 2. 蓝绿基础设施的经济评估

## 3. 动态适应路径法

## 4. 监测蓝绿基础设施

## 5. 为 BGI 和海绵城市融资

## 6. 共同创造和社区参与

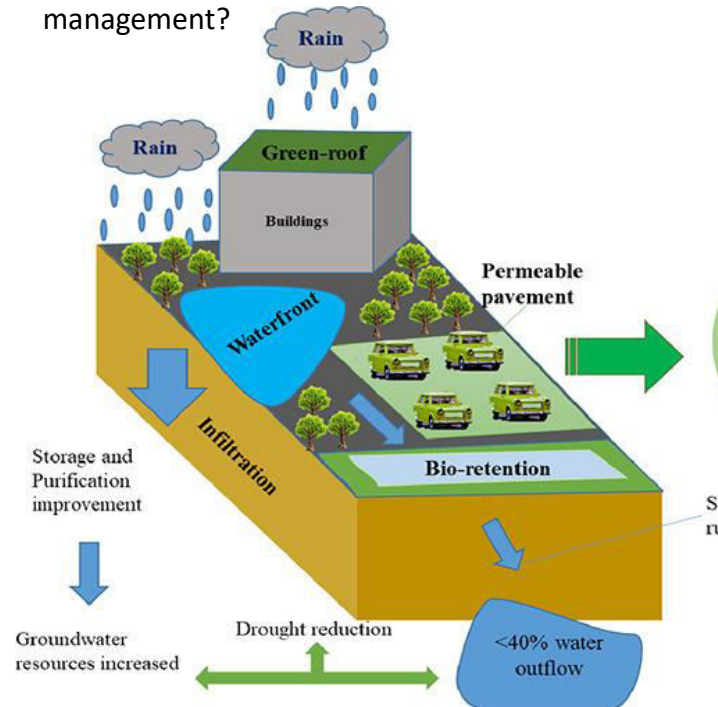
## 7. 管理





# The CECoS project: shared themes

How to make the most of our investments in stormwater management?



Huge and complex task requiring new skills, technologies and products

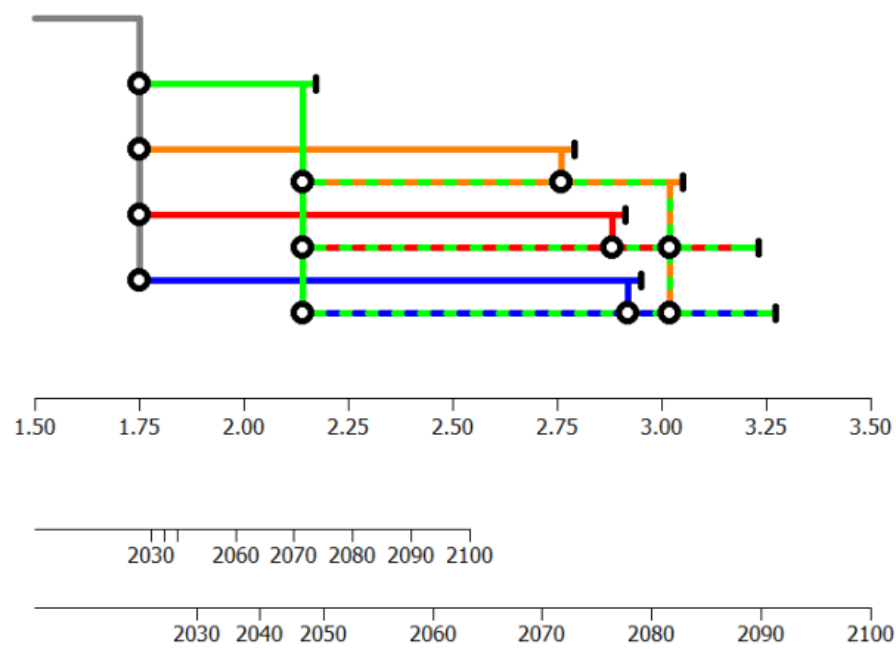
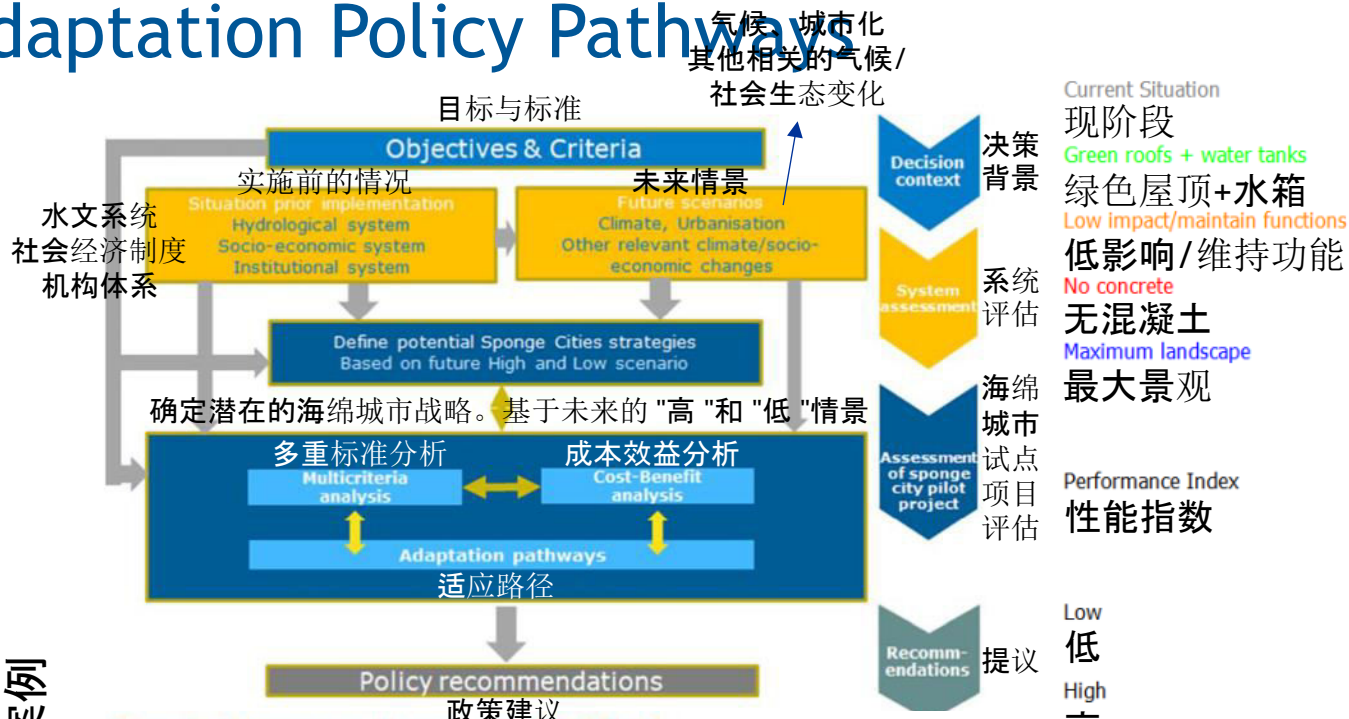
1. **Decision Support Tools for SCC**  
=> Balancing blue green & grey (traditional) drainage systems
2. **Economic evaluation blue green infrastructure**
3. **Dynamic Adaptation Pathways approach**
4. **Monitoring blue green infrastructure**
5. **Financing BGI & Sponge cities**
6. **Co-creation and community involvement**
7. **Governance**



# 利用动态适应政策路径生成和评估备选计划

## Generate and evaluate alternative plans using Dynamic Adaptation Policy Pathways

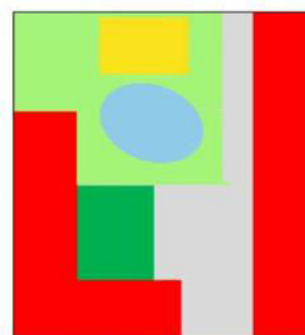
CECoSC - 常德案例



Changde Meteorological bureau, area 12,900 m<sup>2</sup>  
Current situation



常德市气象局，面积 12900 平方米，现状



- Building area, 3,400 m<sup>2</sup> 建筑区域
  - Parking area with permeable tiles, 650 m<sup>2</sup> 铺设透水地砖的停车场
  - Concrete area, 5,000 m<sup>2</sup> 混凝土区域
  - Natural landscape, incl dry grass ditches 3,000 m<sup>2</sup> 包含干草沟渠的自然景观
  - Water pond 400m<sup>2</sup> 水池
  - Sport area, concrete 450 m<sup>2</sup> 混凝土运动场
- \* surfaces are indicative

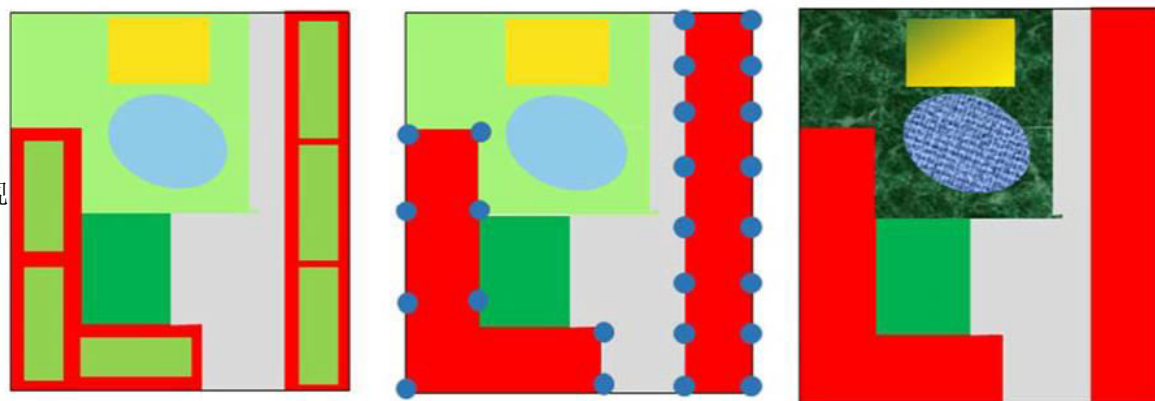


Figure 4 current situation pilot location Change land use schem

# 使用成本效益分析方法评估备选计划

## Evaluate alternative plans using Cost - Benefit Analysis methods

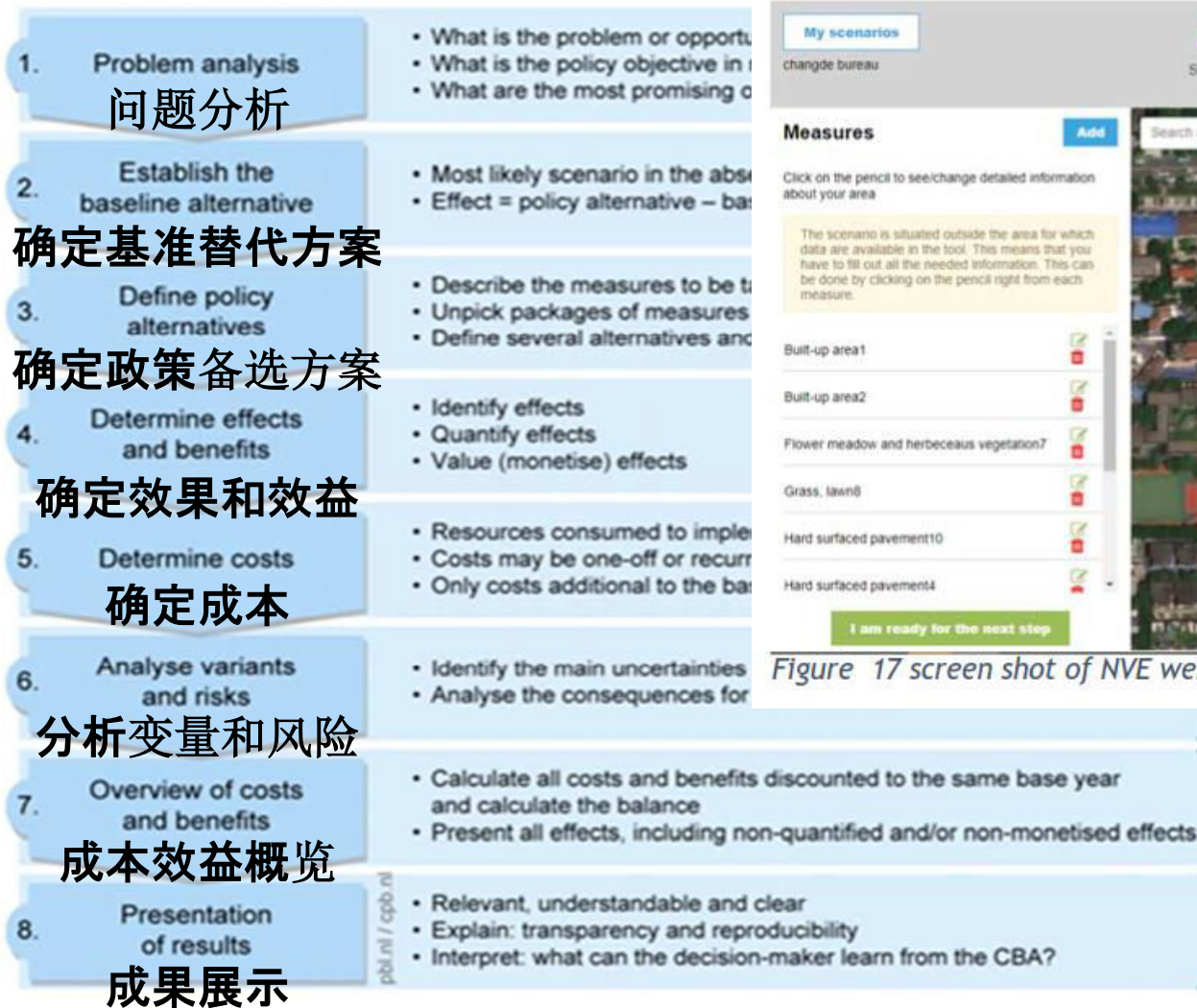


Figure 17 screen shot of NVE webtool

Project alternatives	Investment option	CEA Costs (Capex + Opex) / 2501 mil PpP 2016	CEA Cost Effectiveness (Cost/mil PpP)	CBA Cost-Benefit (NPV mil PpP)	Suppliy			Sustainability			Supply (mcm/y) / ATP		
					Ease of Implementation	Socio-economic impacts			Environmental impacts				
Scenario					Bas	Hig	Lo	Bas	Hig	Lo	Bas	Hig	Lo
Mananga Dam		7,410	7.2	1,644	-	-	-	-	-	-	0	0	0
Lusaran Dam		4,032	4.1	3,033	-	-	-	-	-	-	-	-	-
Kotkat Weir		3,458	6.6	963	-	-	-	-	-	-	-	-	-
Upgrade Luyang Weir		2,020	13.6	-228	+	0	+	0	-	0	0	-	-
GW wells inside		2,852	4.2	2,096	0	+	0	++	+++	++	0	+	++
GW wells outside		1,438	4.4	1,066	0	0	0	0	-	-	-	0	+
Southern Wells		4,073	12.9	-806	-	-	-	-	-	-	-	-	0
Desalination		na	18.6	na	+	++	+	+	++	+	-	-	-

Figure 22 Example of a integrated score card

# China Europe Cooperation on Sponge Cities

## 中欧海绵城市合作

CEWP 海绵城市项目的政策指导对此进行了详细阐述：<https://cewp.eu/policy-guidance>

### Policy Guidance on China-Europe Cooperation on Sponge Cities

#### 1. CEWP Policy Dialogue Process

The China-Europe Water Platform (CEWP) is designed around three strategic pillars - Policy Dialogue, Research and Innovation and Business Cooperation - with, at the same time, four thematic Focus Areas, namely Water Management and Ecological Security, Rural Water & Food Security, Water & Urbanization, Water & Energy Security.

Aiming to raise and to deepen the Policy Dialogue, there are ongoing activities between Chinese and European partners under each of these themes and in additional cross cutting issues as New Visions on Integrated Approaches, Business Cooperation and Climate Change.

And due to the fact that CEWP-EU has five Grant Contracts with EUDEL, this Policy Dialogue, being

### 中欧海绵城市合作的政策导向

#### 1. 中欧水资源交流平台政策对话进程

中欧水资源交流平台围绕政策对话、研究与创新、商业合作三大战略支柱以及水资源管理与生态安全、农村水资源与粮食安全、水资源与城镇化、水资源与能源安全四个重点领域展开。

为了提升和深化政策对话，中欧合作伙伴正在这些主题下开展活动，并围绕综合方法的新愿景、商业合作和气候变化等其他交叉问题开展活动。

由于中欧水资源交流平台欧盟方面已与欧洲代表团签订五份赠款合同，本次政策对话将

# 提议 CEWP-CECoSC 政策报告

- 1) 降低风险，实现效益最大化：采用三点法（3PA）规划弹性（城市）水系统
- 2) 利用蓝绿基础设施升级现有灰色基础设施
- 3) 让公民和其他学科的专家参与蓝绿基础设施的实施
- 4) 改进战略、战术和业务资产管理
- 5) 建立蓝绿基础设施资产登记册
- 6) 促进纵向和横向互动（和学习），以支持新的治理安排
- 7) 寻求与其他部门的协同效应

# Recommendations CEWP-CECoSC Policy Report

- 1) Reduce risks & maximize benefits: Use the Three Points Approach (3PA) to plan a resilient (urban) water systems
- 2) Upgrade existing grey infrastructure using Blue-Green Infrastructure
- 3) Engage citizens and experts from other disciplines in Blue-Green Infrastructure implementation
- 4) Improve strategic, tactic and operational asset management
- 5) Establish an asset register of Blue-Green Infrastructure
- 6) Enable vertical and horizontal interactions (and learning) to support new governance arrangements
- 7) Look for synergies with other sectors

# 超越海绵城市转型，将极端天气事件纳入3PA的范畴

CHINA  
EUROPE  
Water Platform



# 拥抱水

在城市环境中

EMBRACE  
WATER

in the urban  
environment





# 中欧水资源平台（CEWP）--海绵城市及其他：应用“三点法”建设具有气候韧性的城市地区

## China-Europe Water Platform (CEWP) - Sponge Cities and beyond: Climate Resilient Urban Areas by application of the Three Points Approach



Time	Topic	Name
15:00 - 15:30	与会者入场、登记和就座 Walk in	登记、设施和翻译方面的组织援助
15:30 - 15:40 15:40 - 15:50	Welcome words 开幕致辞、欢迎辞和今天的目的 China Europe Water Platform (CEWP) Partnership Initiative介绍和视频	Mrs Jasmin Schous 女士 荷兰 Mrs Diana Carlos 女士 葡萄牙
15:50 - 16:00	对CEWP China Europe Cooperation on Sponge Cities (CECoSC) 合作的思考 成果、政策、指导与3PA白皮书的衔接	Mrs Natalie Oonk-Abrahams 女士 荷兰
16:00 - 16:30  16:30 - 16:40	Introduction White Paper Three Points Approach (3PA) emerged from CEWP CECoSC Policy Guidance: A proposal for EU/CN Future cooperation 导言 白皮书 3PA 由 CEWP CECoS 政策指导演变而来 欧盟/中国 未来的合作建议  休息	Mr Frans van de Ven 先生 荷兰
16:40 - 17:10	Reflection on the White Paper & Proposed future water cooperation between EU and China for Water and Urbanization under 3PA 10 分钟 PPT 回应白皮书及 3PA 提议下欧盟与中国未来在水与城市化方面的水合作建议 • NHRI • HRC • UU	Mr Wang Leizhi 博士 中国 Mr Zhi Yang 博士 中国 Mrs Dai Liping 博士 荷兰
17:10 - 17:30	Wrap-up and conclusions 总结与结论	Mr Klaas Groen 先生 荷兰