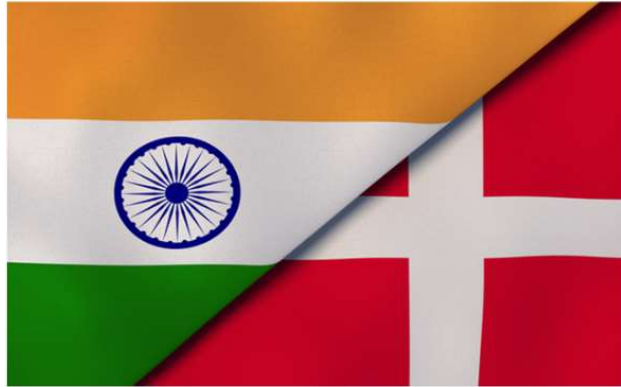




ROYAL DANISH EMBASSY
New Delhi



CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency

Indo-Danish cooperation on integrated water resource management

Project Director, **Dr. Philip Grinder Pedersen** (Danish Environmental Protection Agency, Ministry of Environment)

Project Director, **Ms. Eike Stubsgaard** (Aarhus Municipality)

Where is Denmark?



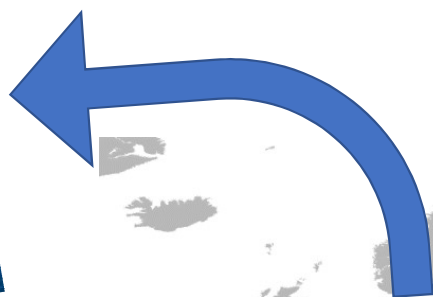
ROYAL DANISH EMBASSY
New Delhi



CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency





Green Strategic Partnership

India-Denmark

Joint statement on September 28th 2020 by Prime Minister of India H.E. Narendra Modi and Prime Minister of Denmark H.E. Mette Frederiksen.



India-Denmark Virtual Bilateral Summit, 28 September 2020

1. POLITICAL AND ECONOMIC COOPERATION
2. ENERGY AND CLIMATE CHANGE
3. ENVIRONMENT, WATER, AND CIRCULAR ECONOMY
4. SUSTAINABLE AND SMART CITIES
5. BUSINESS, TRADE, AND INVESTMENT
6. MARITIME COOPERATION
7. SCIENCE, TECHNOLOGY, AND INNOVATION
8. FOOD AND AGRICULTURE
9. HEALTH AND LIFE SCIENCE
10. CULTURAL EXCHANGE, PEOPLE-TO-PEOPLE RELATIONS, AND LABOUR MOBILITY
11. MULTILATERAL COOPERATION

3. ENVIRONMENT, WATER, AND CIRCULAR ECONOMY

Water scarcity and pollution call for taking a circular economy approach to managing water and resources sustainably. India's draft Resource Efficiency Policy and Denmark's Circular Economy Strategy show the commitment of both countries in this field. Sustainable water resource management, water efficiency and minimizing water loss are key to ensure that the required water resources are available for delivery of safe and adequate drinking water to every household.

4. SUSTAINABLE AND SMART CITIES

The rapid urbanisation urgently calls for developing, testing and establishing best practices for sustainable and liveable cities. Denmark and India will cooperate on sustainable and smart urban development with a view to promoting a circular economy, creating sustainable, smart and liveable cities. Cooperation projects will be shared and upscaled to regional and national levels.

#	TASK
17	Exchange information and best practices on how to create sustainable and liveable cities and on the smart solutions required to achieve this.

ACTION

- Meetings in the Joint Working Group on Smart and Sustainable Cities, aimed at sharing of experiences, information, and documentation that can help advance cooperation on sustainable and smart cities.
- Knowledge sharing and upscaling of the results from flagship pilot project on efficiency of water distribution, minimisation of water loss and achieving 24/7 water supply

FRAMEWORK AND MAIN ELEMENTS

- Memorandum of Understanding on Sustainable Cities signed by:
- Denmark
 - Ministry of Industry, Business and Affairs
 - Embassy of Denmark in New Delhi
 - Trade Council

Implemented through different modalities, e.g.

Government-to-government cooperation between the Ministry of Jal Shakti and the Danish Environmental Protection Agency

2021 -

Cooperation on urban water management between Government of Rajasthan and City of Aarhus

202x -

Aarhus Municipality & Danish Environmental Protection Agency





ROYAL DANISH EMBASSY
New Delhi

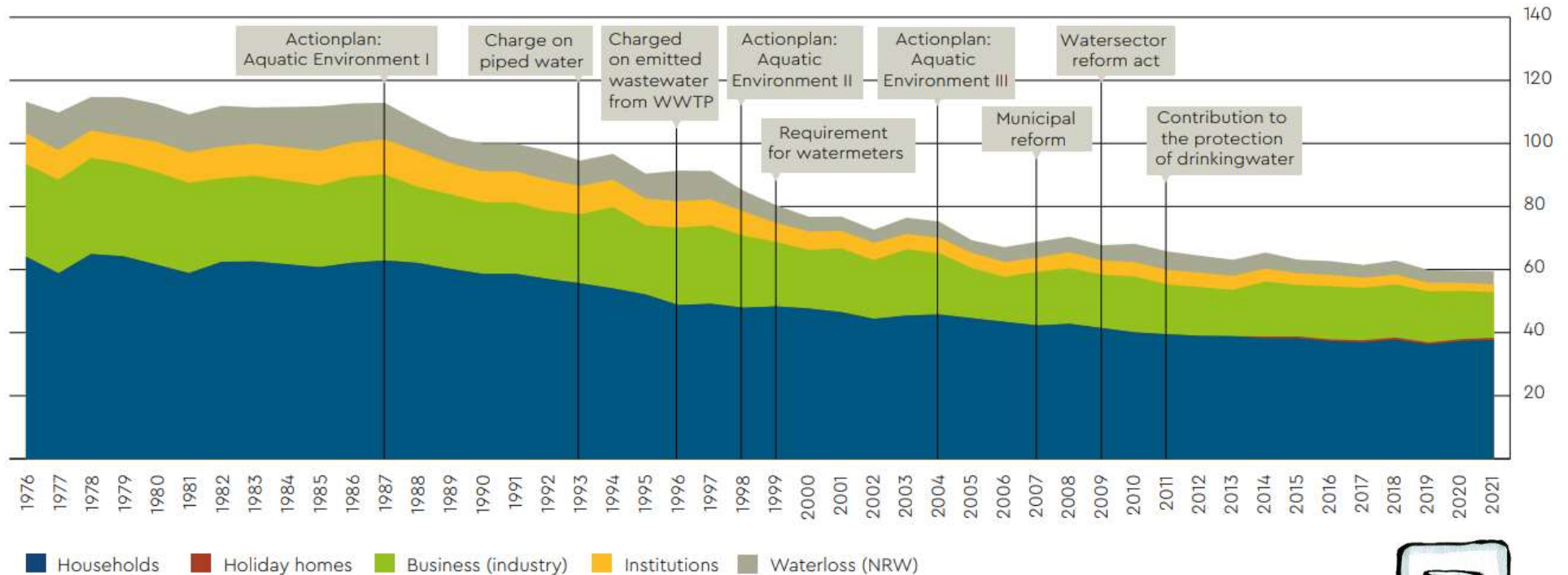


CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency

Water Supply reduction



1970's: 200 L/p/d

2020's: 100 L/p/d



Aarhus Municipality & Danish Environmental Protection Agency

Source: DANVA 'Water in figures' 2022



ROYAL DANISH EMBASSY
New Delhi

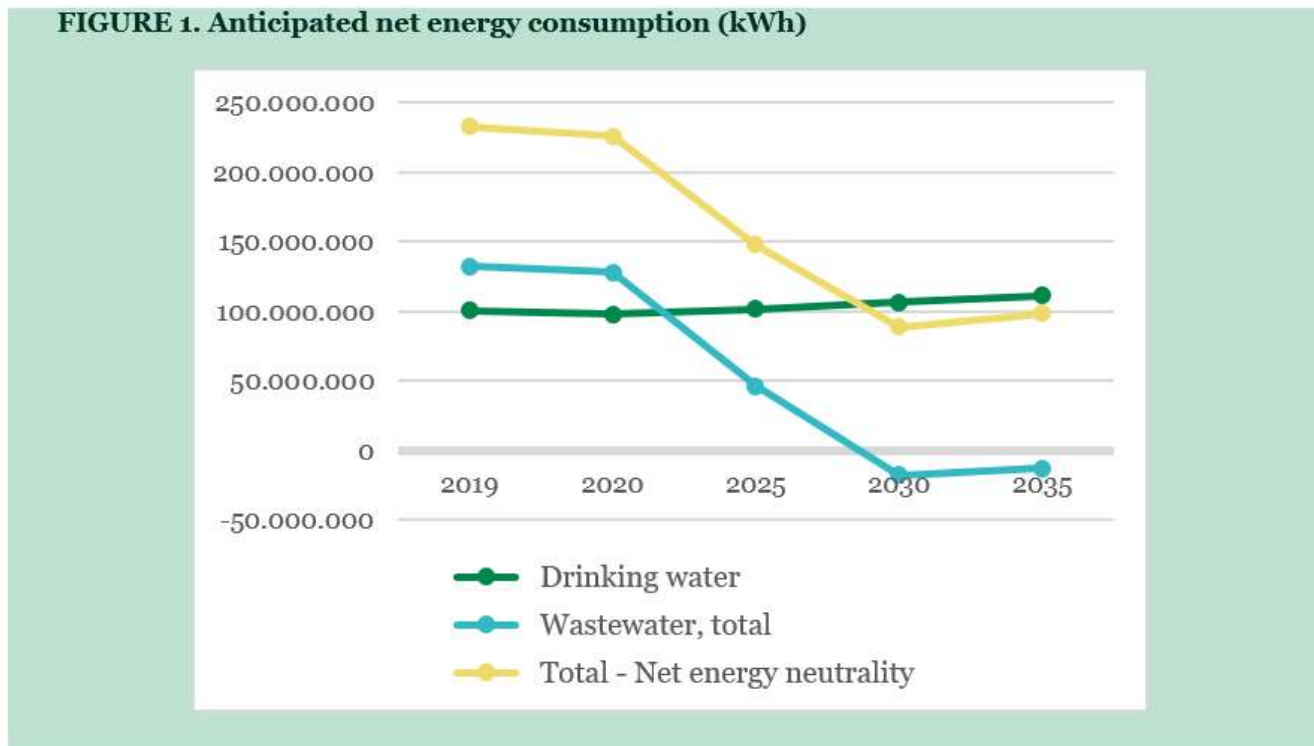


CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency

Utilities – anticipated net energy consumption (kWh)





ROYAL DANISH EMBASSY
New Delhi

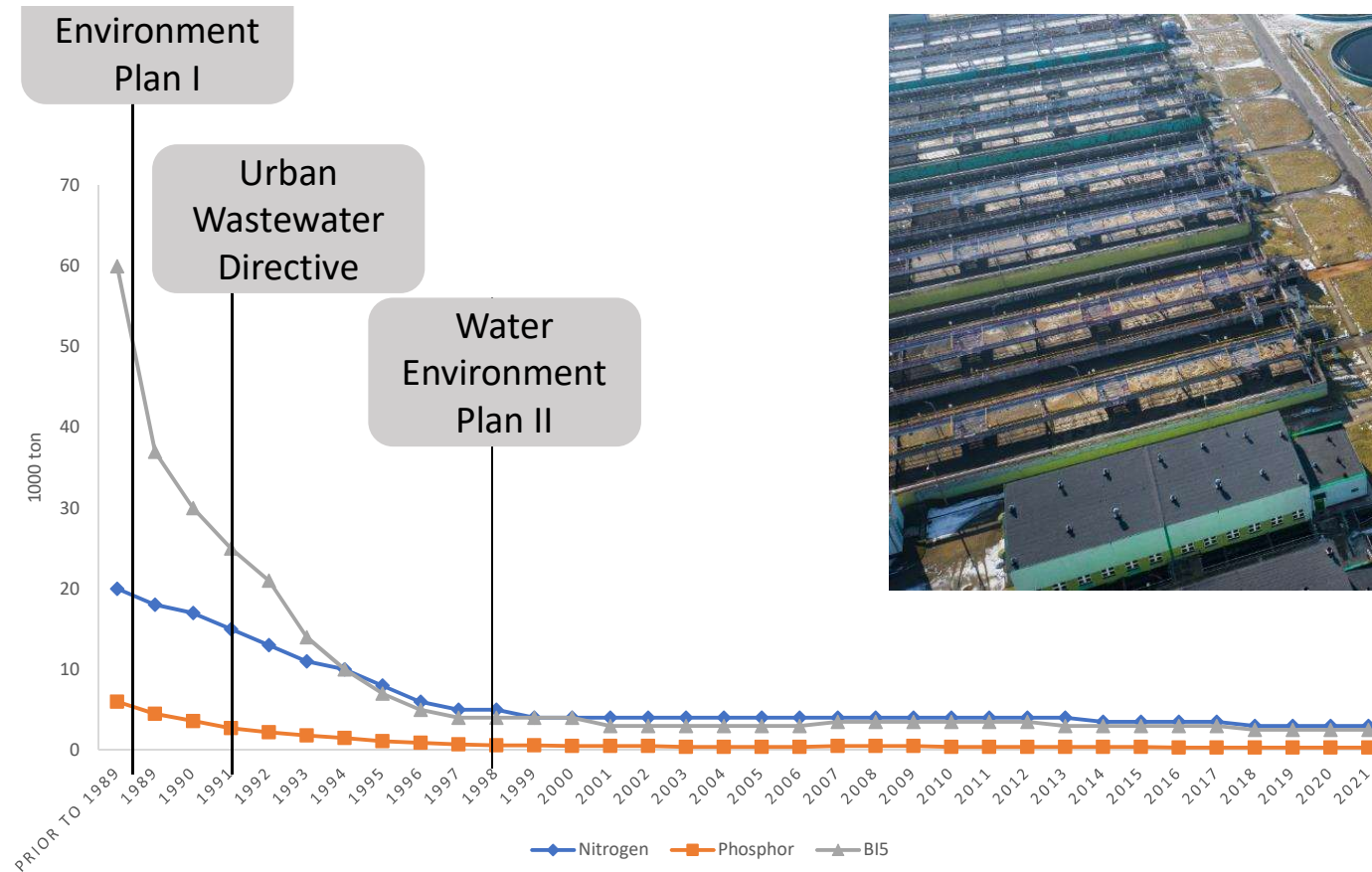


CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency

Discharge of nutrients and organic matter



Aarhus Municipality & Danish Environmental Protection Agency



ROYAL DANISH EMBASSY
New Delhi



CITY OF
AARHUS



Ministry of Environment
of Denmark
Environmental
Protection Agency

Municipalities and utilities – main implementers



Aarhus Municipality & Danish Environmental Protection Agency



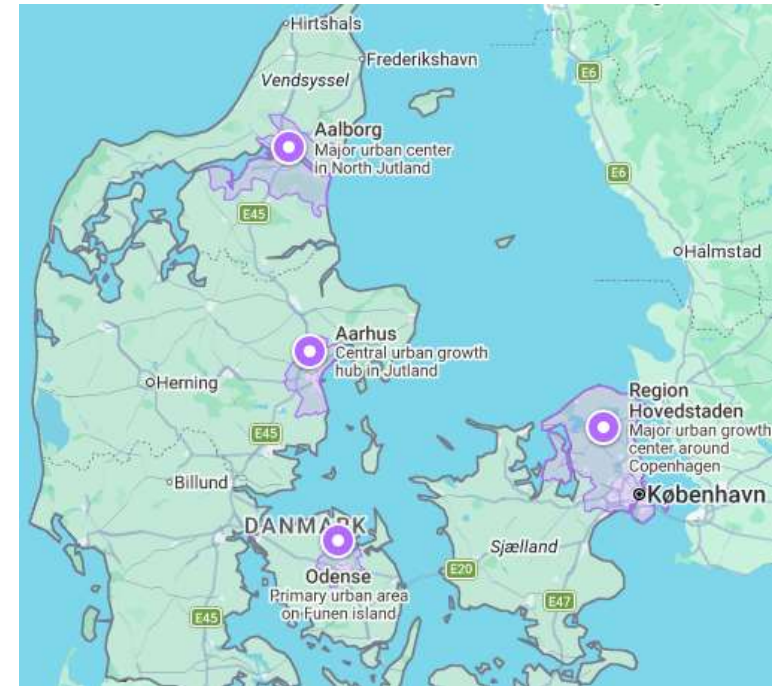
Sustainable Urban Water Management - examples

India Water Week, September 2026

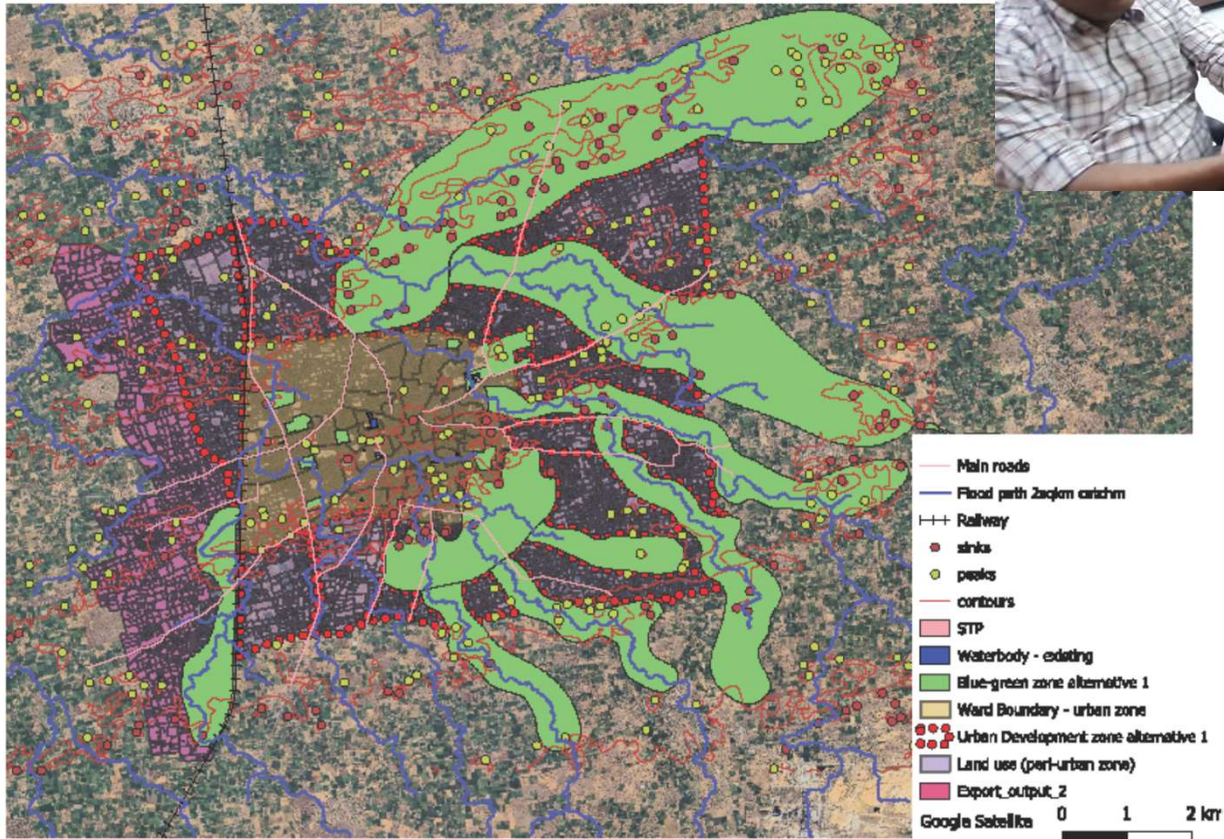


Urban challenges

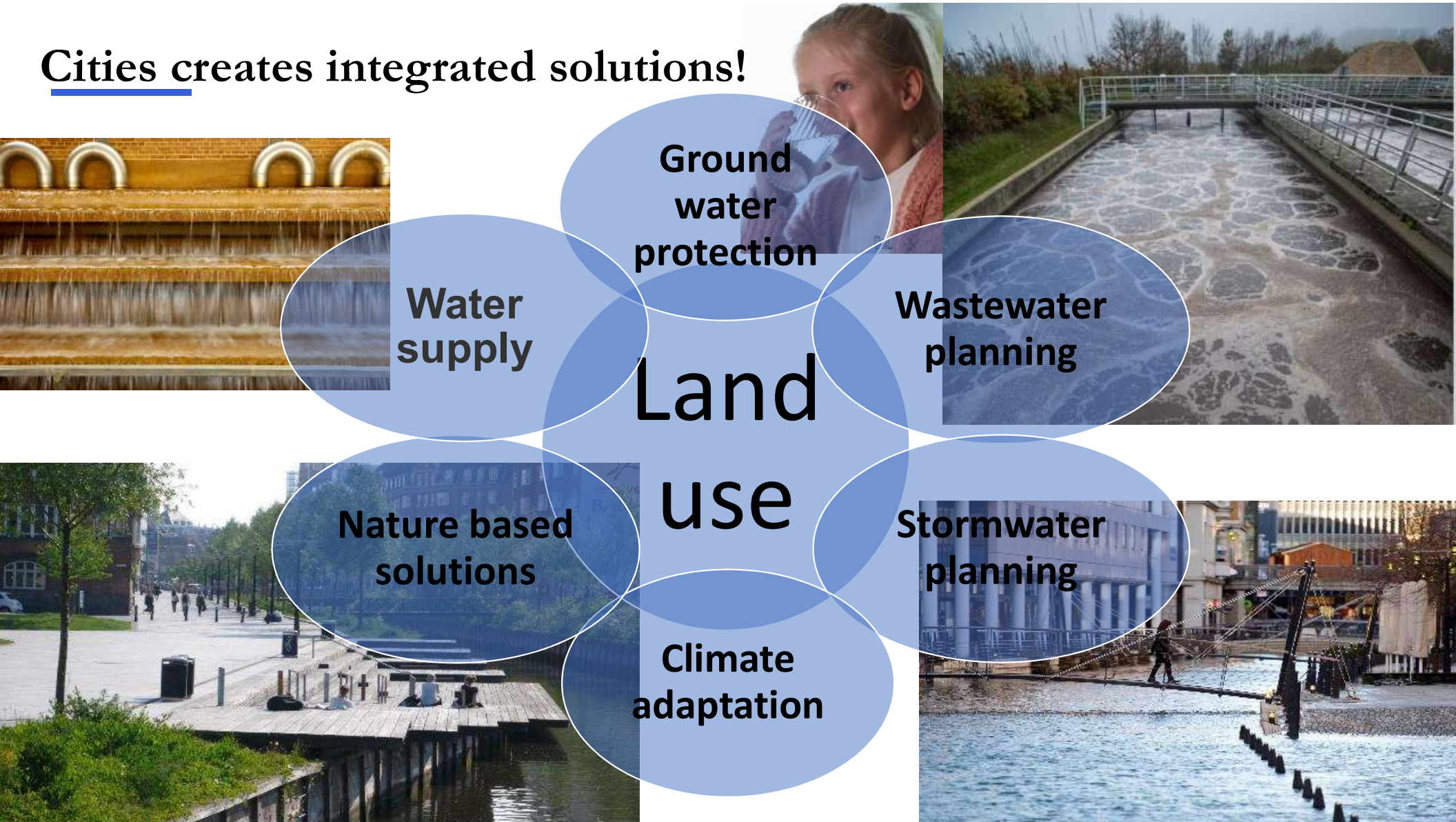
- Urbanisation
- Water stress, floodings <-> Water secure cities
- Use water as a resource – not a problem: Sponge cities



Integrated Urban Water Ressource Management



Cities creates integrated solutions!



River Rejuvenation – Biodiversity and recreative solutions

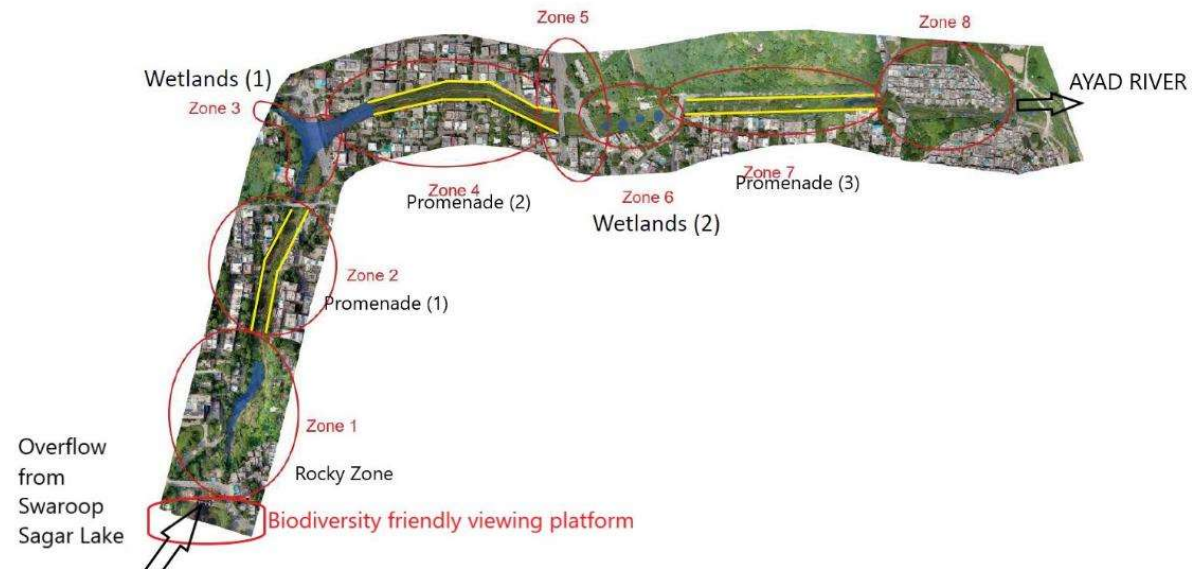
Concept Note

- Concept for river rejuvenation for Gumania Nalla in Udaipur finalised. Udaipur UMC is finalising DPR.

Demonstration Pilotproject

Upscaling:

- Lessons shared. River Cities Alliance, National Mission for Clean Ganga and MoHUA



Model Project for Gumania Nala, Udaipur Rejuvenation

UMC Vision: Green vegetation, walking tracks and nature based solutions.



Green and blue riverscape

Nature based solutions including existing heritage, architecture, nature and other values.

For example:

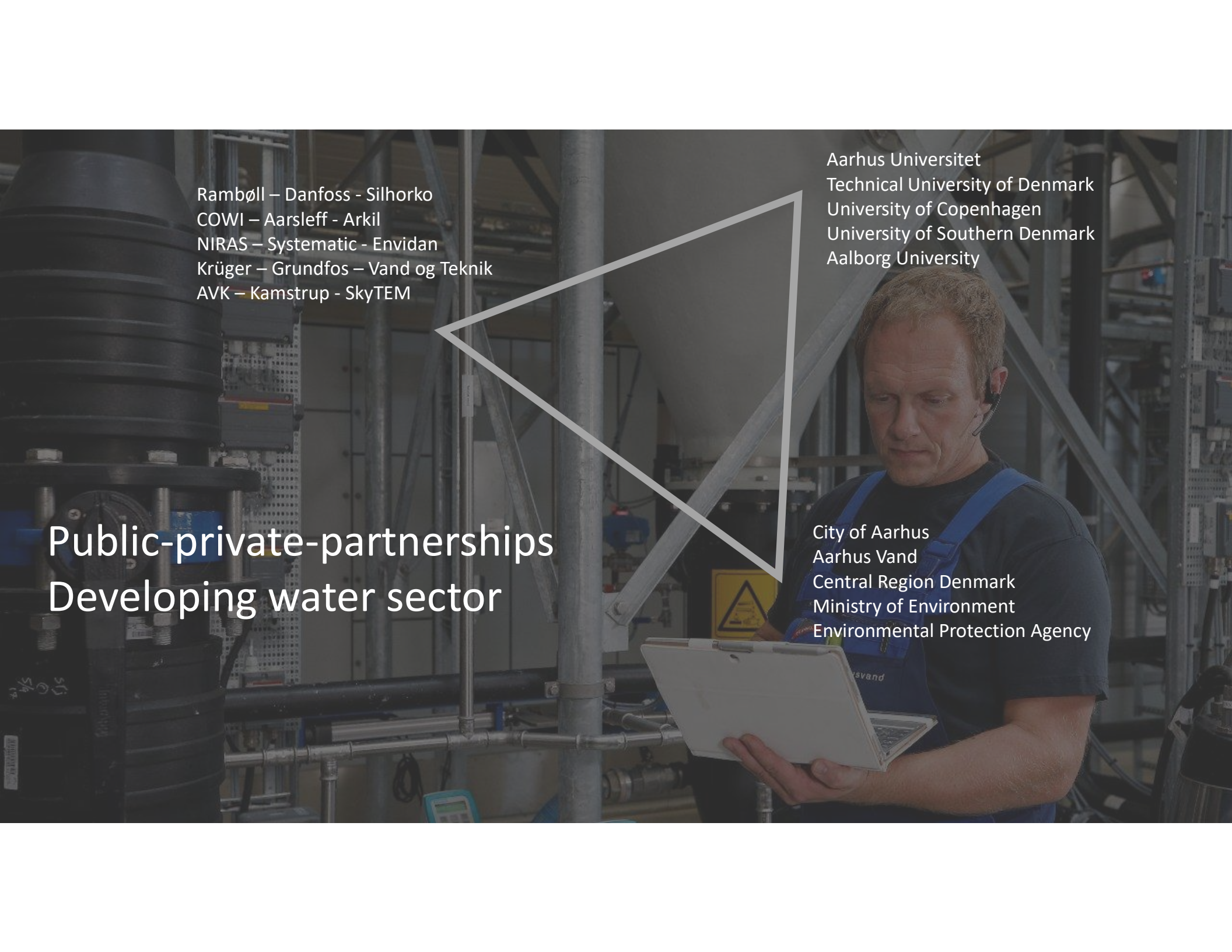
- Native biodiversity - wildlife/birdlife
- Natural materials
- Heritage well / aqueduct / original walls along the riverside
- Cremation sites
- Etc.

Thematic river restoration

Divide the river into stretches of different themes for different experiences. For example:

- Section 1: Heritage
- Section 2: Nature
- Section 3: Culture / Religion



A man with short brown hair, wearing a blue t-shirt and a blue safety harness, is looking down at a silver laptop he is holding. He is in a technical or industrial setting with metal pipes and equipment in the background. A large white triangle is superimposed on the image, pointing towards the right.

Rambøll – Danfoss - Silhorko
COWI – Aarsleff - Arkil
NIRAS – Systematic - Envidan
Krüger – Grundfos – Vand og Teknik
AVK – Kamstrup - SkyTEM

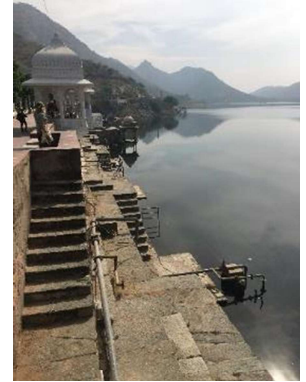
Aarhus Universitet
Technical University of Denmark
University of Copenhagen
University of Southern Denmark
Aalborg University

Public-private-partnerships Developing water sector

City of Aarhus
Aarhus Vand
Central Region Denmark
Ministry of Environment
Environmental Protection Agency

Water supply

Reducing non revenue water, data management and energy reduction



Cleaning our waste water produces energy

**The Wastewater Treatment Plants in
the City of Aarhus produces 50
percent more electricity than they need
and 2.5 GW of heat to our cold winters**

