



porto metropolitan area



Sustainable Water Management in Urban Green Spaces

Rethinking local policies – Bringing back nature to the city

Interreg Europe Policy Learning Platform event

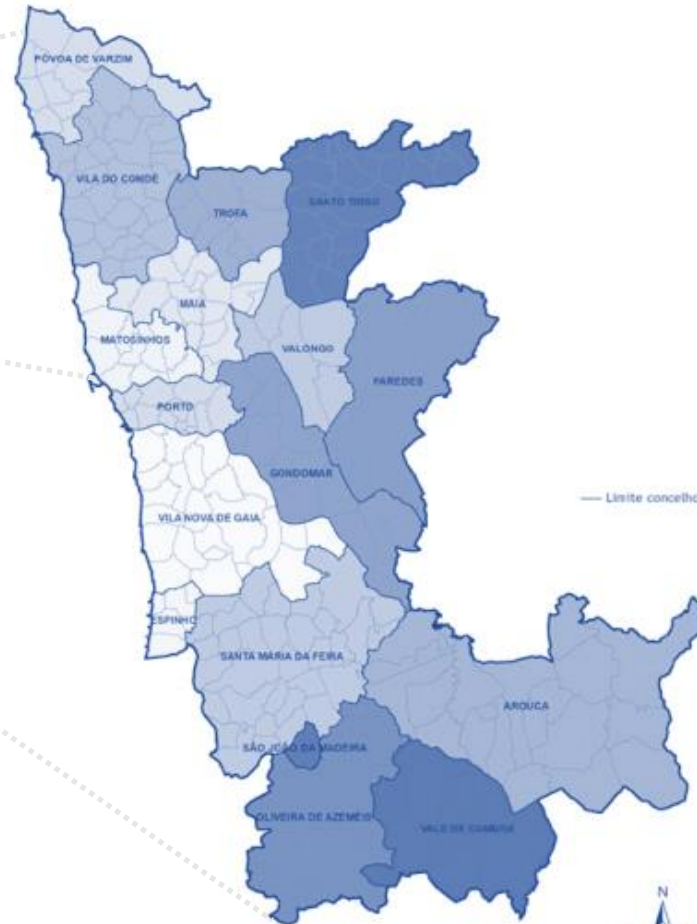
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Mariana Cruz



The Metropolitan Area of Porto (NUTS III Region)

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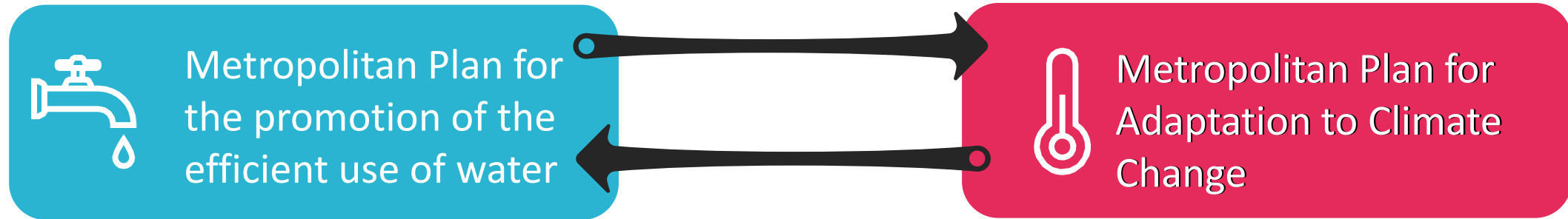
PORTO METROPOLITAN AREA (AMP, in Portuguese) is the public administration of the metropolitan area of Porto

- **17 municipalities**
- **Population:** 1,700,000 inhabitants
- **Territory:** 2,041 km²
- **Heterogeneous and diverse area**
 - Population density
 - Geography
 - Land occupation
 - Varied climate mosaics



Two important environmental instruments

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- Boost climate resilience
- Reduce urban water footprint



Sustainable water management in urban green spaces

A handbook for action in the context of climate change



For municipalities to establish strategies to improve efficiency in water usage and to adapt urban green spaces to climate change scenarios

01 - Literature review

State-of-the-art



Achieve an efficient and sustainable water management in urban green spaces

02 - Diagnosis

AMP municipalities' level of **knowledge, availability and receptiveness** regarding the implementation of measures for a more sustainable water management.

03 - Actions and guidelines

Guidelines and a catalogue of **various types of solutions** that can be applied at **different scales**, according to the reality of each municipality.



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Reducing water consumption for irrigation is just the tip of the iceberg.

Create smart irrigation systems

Choose vegetation with low water requirements

Look for alternative water sources, such as, treated wastewater

Protection of rivers, aquifers and riparian habitats

Rainwater collection and storage

Improve the water retention capacity of the soil



- 80%** of the urban green spaces is **managed by the municipalities;**
- 94%** interested in implementing new technologies;
- 100%** concerned or very **concerned about water scarcity;**
- 100%** are particularly sensitive to the choice of **native vegetation and the water needs of the vegetation;**
- 76%** say they adopt **adequate maintenance practices** for sustainable water management;
- 94%** **reduce the time and frequency of operation of the irrigation system, in times of water shortage.**



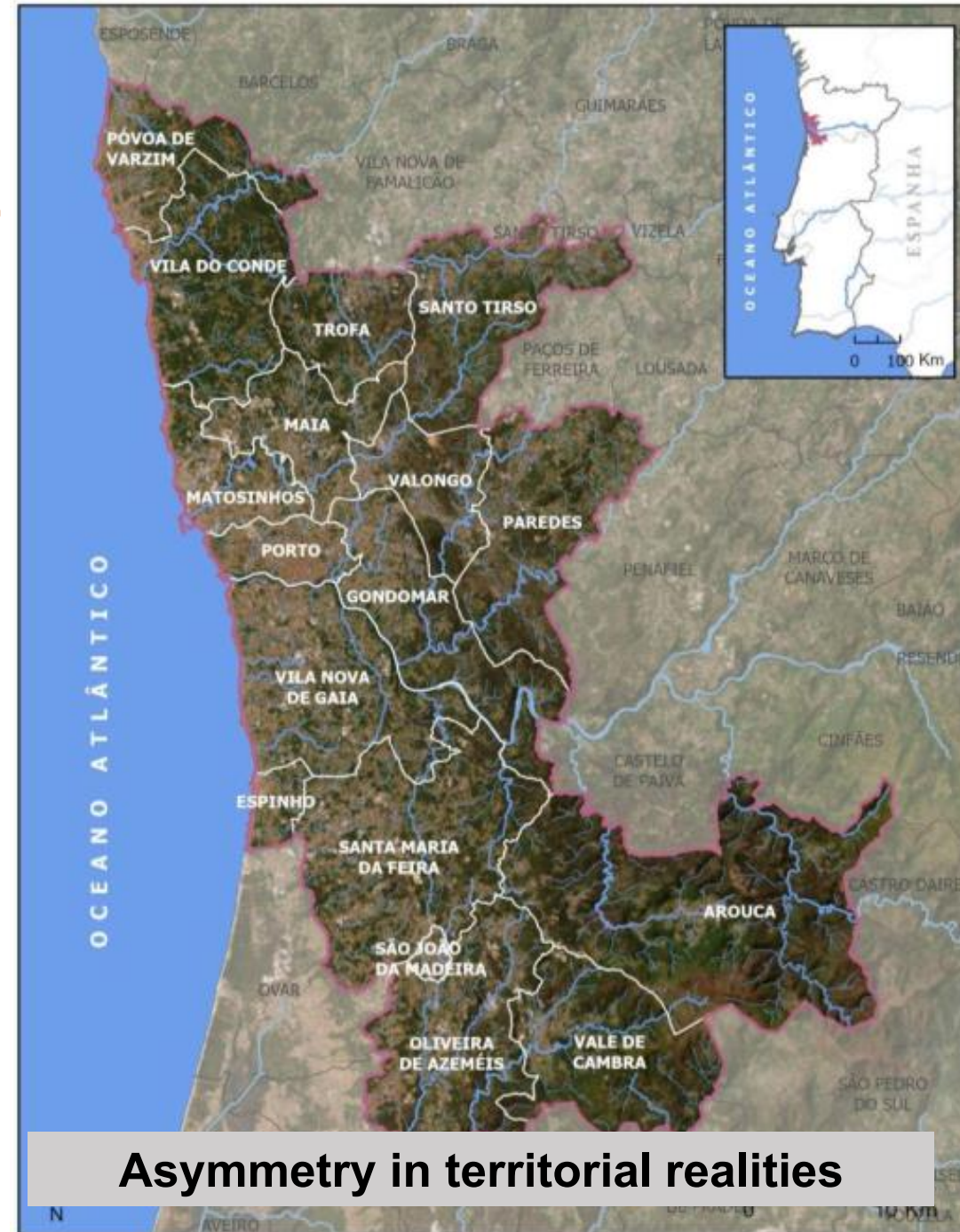


Diagnosis

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- 18%** do not know the **area of green urban spaces**;
- 36%** do not know the **irrigated area**;
- 41%** do **not know or do not account for the water they use** to irrigate green spaces;
- 65%** do not know the **amount spent on irrigation**;
- 65%** do not have **data/maps** regarding local climate, groundwater, or water quality;
- 50%** have sustainable water management **plans/strategies**
- 66%** use **potable water for irrigation**;
- 53%** do not use any **smart irrigation** technique.



Asymmetry in territorial realities

Two approaches to achieve a more sustainable water management



Municipal scale measures

- Know **environmental conditions**
- Know the **consumption and distribution of water**
- Study the potential of **water collection, retention and distribution systems**
- Protect and promote the **regeneration of ecosystems**
- Changing mindsets - **Training**



Small scale measures

- **Ground:** vital resource
- **Vegetation:** attributes and composition
- **Project:** for a sustainable design
- **Watering:** efficient and smart systems
- **Maintenance:** the guarantee of success





área metropolitana do porto

Thank you!

For more information, please contact us
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