# URBAN GREEN SPACES AND CLIMATE CHANGE

Study case in Seine-Saint-Denis, France

2.2

Progress Workshop August 2018 Denmark



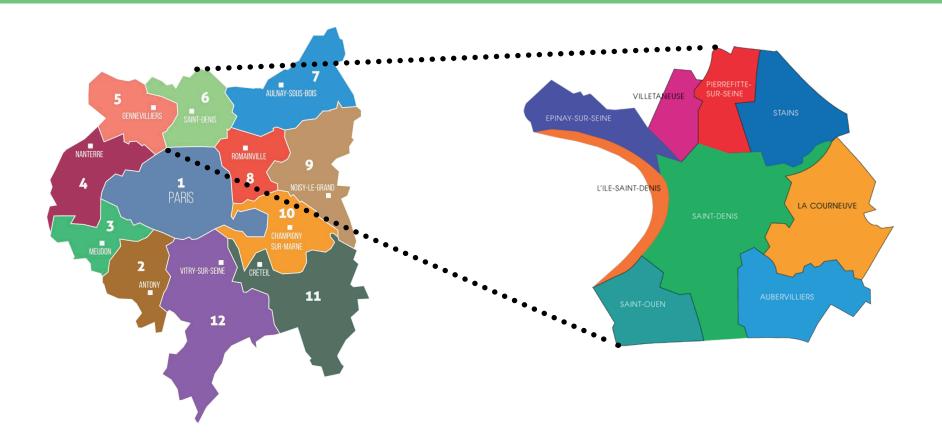
## REGIONAL CONTEXT

### THE « MÉTROPOLE DU GRAND PARIS »

814 km<sup>2</sup>,
131 cities
12 local governments (EPT)
7 millions inhabitants

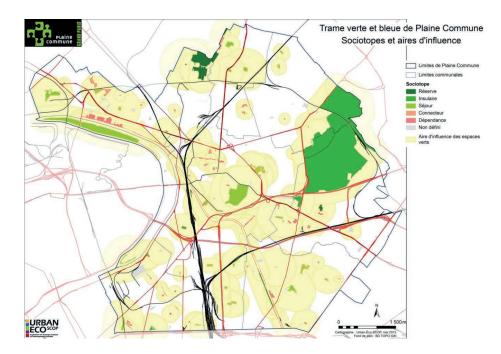
#### « **PLAINE COMMUNE** » Seine-Saint-Denis, 1,5 millions inhabitants

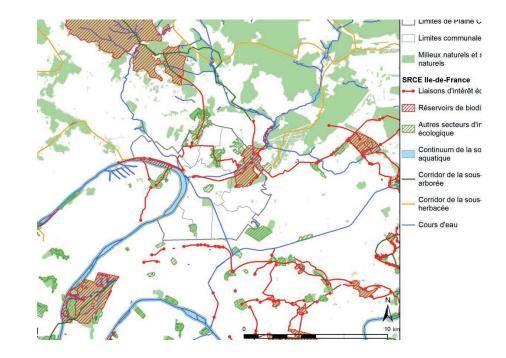
47,4 km<sup>2</sup>9 cities430 000 inhabitants



## LOCAL CONTEXT

# 140 urban green areas (14% of the territory)... ...But an unbalanced distribution... ...And a new paradigm with climate change







PLAINE COMMUNE, ASSOCIATIONS, COUNCILLORS AND LOCAL RESIDENT STARTED THE PROJECT

## URBAN GREEN SPACES ADAPTED TO CLIMATE CHANGE : DESIGN AND MANAGEMENT

5 public and open green spaces

**5 workshops on sites** 

Main goal : Integrate the issue of climate change systematically into the creation or renovation of public spaces, especially green spaces Urban design Urban heat island (UHI) Share of plant-covered area Share of mineral Risk of flood hazard Practices on site Movements



## STUDY CASE FATIMA BEDAR GARDEN SAINT-DENIS

440 square meters

### Assessing maintenance procedures

Measuring design impact and plant growth conditions

Measuring heat, humidity levels







## STUDY CASE FATIMA BEDAR GARDEN SAINT-DENIS

Integrate local resident in the process Assessing connections between green spaces and built spaces





Integrate climate change and natural disasters factors in development process



## STUDY CASE SYNTHESIS

## FATIMA BEDAR GARDEN SAINT-DENIS

## 440 square meters



Polluted soils (former industrial site)

Poor quality soil

Groundwater close to the surface

Few human-plant relationships

**UHI** issues

Not enough trees

Contradiction between natural spaces and artificial furnitures

Garden very dry and unpleasant to use after noon in summer

Some plant species are not adapted

Lack of water butt

Some issues in management (training of landscapers)

Urban garden or urban square ?

## STUDY CASE RECOMMANDATIONS AND DISCUSSION

## FATIMA BEDAR GARDEN SAINT-DENIS

**Rethink swales roles** 

**Rethink selection of plan species** 

**Rethink usage** 

Rethink landscape approach

Rethink design process and foresee climate factors (heat, rain, wind, natural disasters).