

Cooling the City

Green Infrastructure and Resilient Buildings
in Porto Alegre, Brazil

Rovana Reale Bortolini

*Director of Sustainability Projects and Policies
Municipal Secretariat of Urban Planning, Environment and Sustainability*

PORT ALEGR

Capital of the State of Rio Grande do Sul

1.4 million inhabitants¹

191 mi² of total area

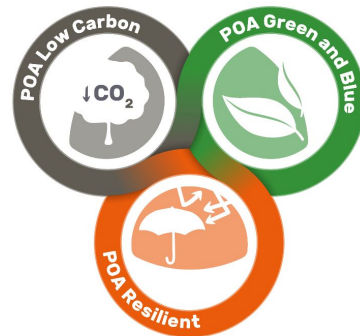
¹ IBGE/Population Estimates of 2025



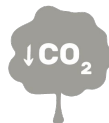


CLIMATE ACTION PLAN

The CAP is a policy instrument that defines and prioritizes measures to reduce GHG emissions and to enhance the city's social, economic, environmental, and territorial resilience to the effects of climate change.



30 ACTIONS IN 3 STRATEGIC AXES



LOW CARBON POA

Actions to **reduce greenhouse gas emissions** in the sectors of Transportation, Waste, and Stationary Energy.



RESILIENT POA

Actions to **prepare the city to deal with the current and future effects of climate risks**, with a focus on measures to reduce impact, protect the population and ensure health and quality of life.



GREEN AND BLUE POA

Actions to **preserve, restore and expand the city's ecosystems, green spaces and water sources**, as well as to reduce the water footprint and seek investments in **sanitation and sustainable urban planning**.

SUSTAINABLE AWARD AND CERTIFICATION PROGRAM

Action 6. Encourage sustainable construction and green technologies in government, residential, commercial, industrial and service buildings.

An incentive initiative promoting the adoption of sustainable practices in the construction industry.

CREDIT DIMENSIONS

Conservation of local biodiversity	Waste
Adaptation to Climatic Conditions	Construction materials
Water	Accessibility, Mobility and Humanization of buildings and urban spaces
Energy and GHG Emissions	

208

CERTIFIED BUILDINGS

159	Diamond	76%
21	Gold	10%
25	Silver	12%
3	Bronze	1%

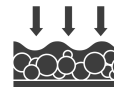
Strategies to tackle extreme heat and urban flooding risks



Native tree planting



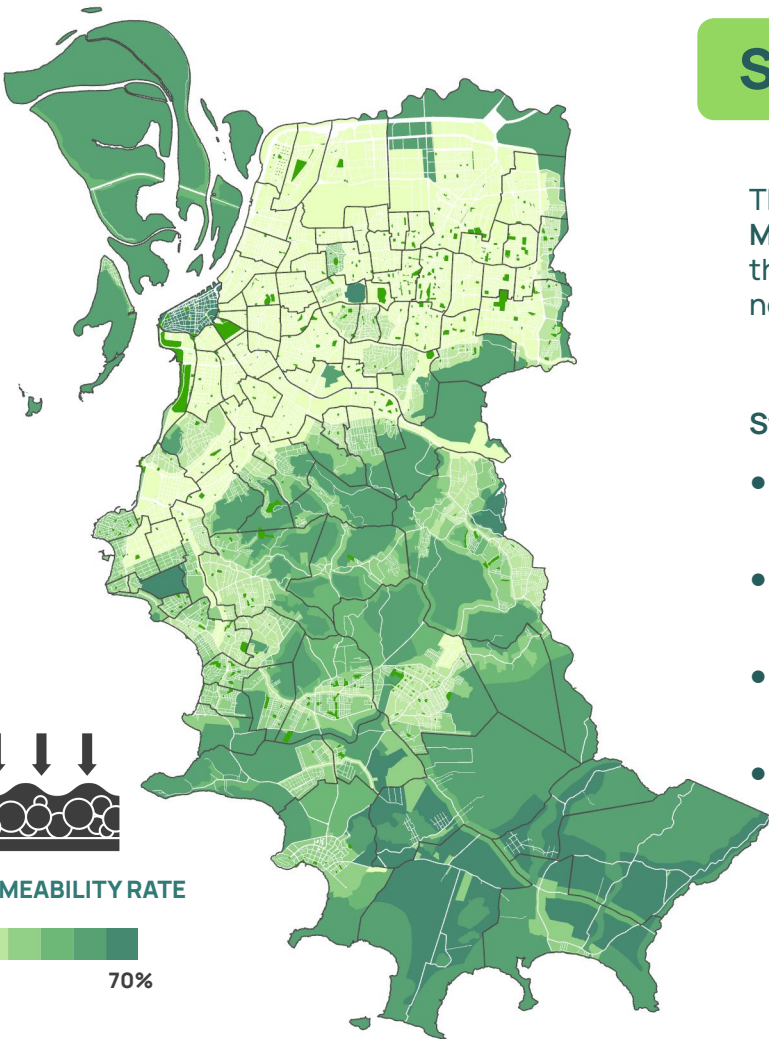
Green roofs and vertical gardens



Increase in permeable surface area on the site and permeable paving



Rainwater harvesting system



SUSTAINABLE URBAN PLANNING

The ongoing **revision of Porto Alegre's Master Plan** aims to adapt the city to the effects of climate change and reach net-zero greenhouse gas emissions.



PLANO
DIRETOR DE
**PORTO
ALEGRE**


Strategies to tackle urban flooding risks


- Provision of mandatory stormwater **retention reservoirs** in strategic urban drainage areas.
- Building restrictions on flood-prone lots and establishment of **minimum protection elevations** based on hydrological studies.
- Establishes the **Soil Permeability Rate** as an Urban and Environmental Planning Instrument.
- In flood-prone areas, the plan requires the **implementation of flood protection measures** to make buildings resilient and adaptable:
 - Building design solutions
 - Material solutions
 - Structural solutions
 - Land use organization


Thank you!

Rovana Reale Bortolini

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 youtube.com/SmamusPortoAlegre

 [smamuspoa](https://www.instagram.com/smamuspoa)

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