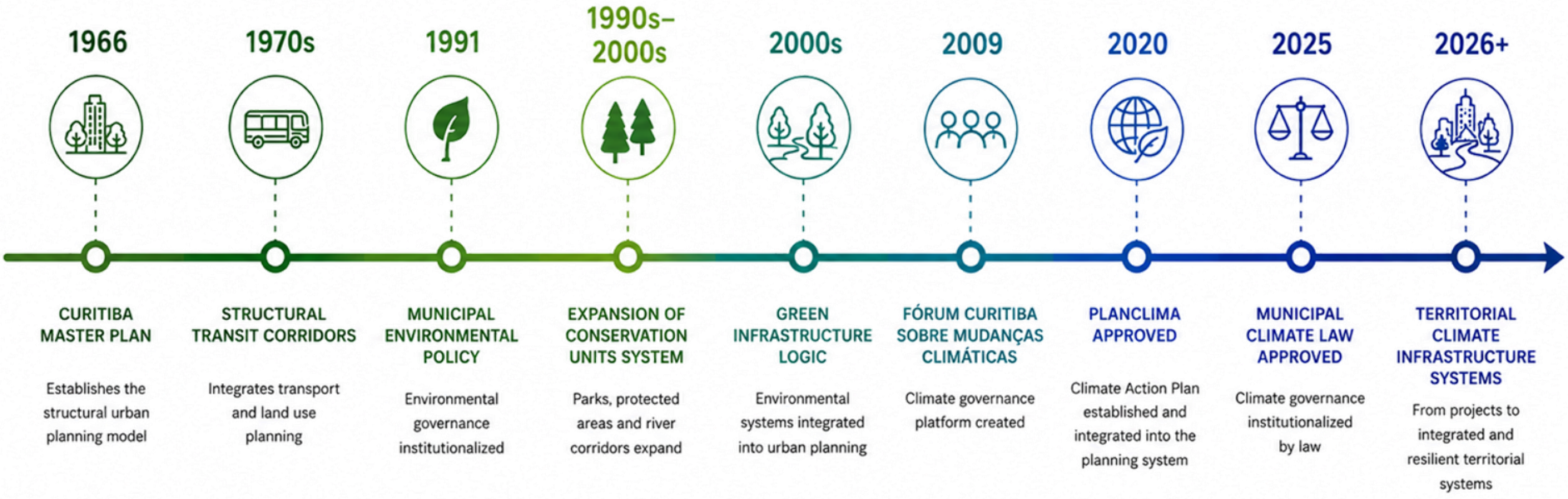
Curitiba: Operationalizing Green Infrastructure Through Climate Governance

GPSC City Academy on Green Urban Infrastructure and Nature-Cultural Tourism

Samarkand, Uzbekistan – June 2026

Felipe Maia Ehmke
Climate Change Director
Municipal Secretariat of the Environment

Curitiba’s Environmental and Climate Planning Evolution



Curitiba’s City Context

Estimated population (2025)	**1,830,795** people
Population in the last Census (2022)	**1,773,718** people
Metropolitan region population (2025)	**3,740,000** people
Territorial area	**435.4** km²
Demographic density	**4,078.53** hab/km²

GREEN INFRASTRUCTURE & CONSERVATION

CONSERVATION UNITS

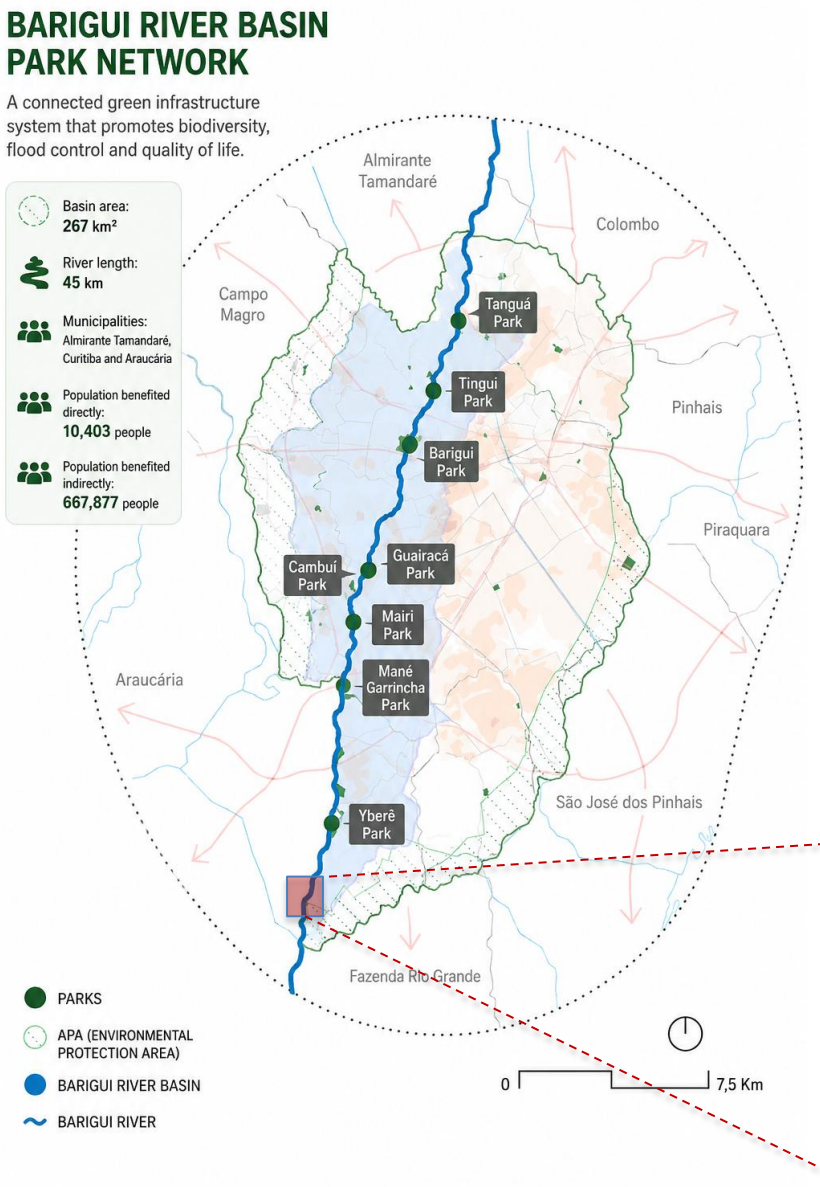
Parks and Forest Conservation Units	**53** units
Municipal Private Natural Heritage Reserves (RPPNMs)	**65** reserves
Green area per inhabitant	**68** m² per inhabitant

URBAN GREEN AREAS

SQUARES, SMALL PARKS, PUBLIC GARDENS AND OTHER GREEN AREAS

Public green areas	**1,223** areas

Bairro Novo do Caximba Project



Environmental Conditions

- Presence of waste and pollution near water bodies
- Sanitation deficiencies affecting public health

Community Vulnerability

- High exposure to climate risks, including flooding and landslides
- Need for relocation of families living in high-risk areas

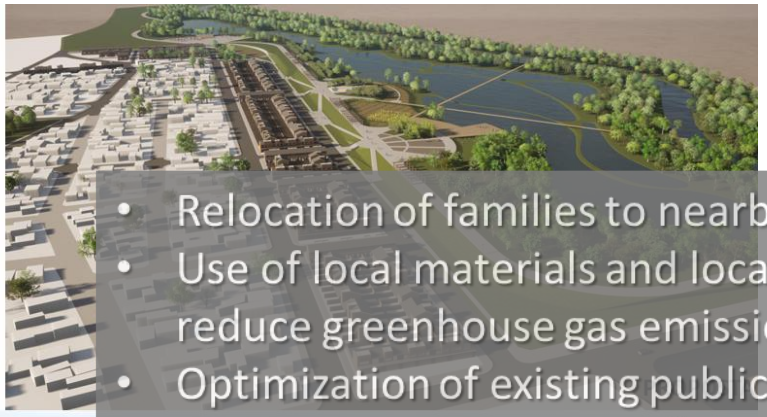
Urban Infrastructure

- Urbanized area with precarious infrastructure
- Need for improvements in roads, lighting, and basic public services

Bairro Novo do Caximba Project

Bairro Novo do Caximba Project

Bairro Novo do Caximba Project



- Relocation of families to nearby safe areas (within a 700-meter radius)
- Use of local materials and local workforce to strengthen the local economy and reduce greenhouse gas emissions
- Optimization of existing public infrastructure and transport systems to improve resilience of services and facilities
- Community engagement through a participatory bottom-up planning process
- Multi-sector collaboration between public agencies, private sector and institutions
- Use of photovoltaic panels and rainwater harvesting systems in housing units
- Shared streets designed for thermal comfort, safe mobility and active transportation
- Sustainable stormwater microdrainage solutions and permeable paving systems
- Creation of a productive park integrating flood control, ecological restoration and economic opportunities for local families

Lessons learned / Key takeaways

- Curitiba's experience demonstrates the importance of integrated governance
- Green infrastructure becomes transformative when connected through territorial logic
- Climate resilience depends on linking planning, infrastructure, ecosystems, and finance
- Cities must evolve from isolated sustainability initiatives toward systemic urban transformation
- Treat green infrastructure as essential urban infrastructure
- Think in networks, not isolated projects
- Integrate climate goals into planning and investment systems
- Build governance structures before scaling interventions
- Use pilot projects strategically to generate legitimacy and financing

THANK YOU!

Building a resilient, inclusive and sustainable future for our communities.

SOCIAL INCLUSION | ENVIRONMENTAL RESTORATION | CLIMATE ADAPTATION | ACTIVE MOBILITY | RENEWABLE ENERGY | QUALITY OF LIFE FOR ALL

CURITIBA

A CITY THAT PLANS, CARES AND INSPIRES.