

4. Brasília: Serrinha do Paranoá waters project



Type: multi-stakeholder

Region: centre-west

Biome: cerrado (Brazilian savannah)

City of Brasília

Population: 3 039 444 (estimated in 2017 ⁸²)

Area: 5 779.997 km²

Elevation: 1 091 m

Coordinates: 15.826700 S / 47.921800 W

MHDI: 0.824 (2010) ⁸³

Context

Brasília is the capital of Brazil and its third largest city in population. The city was built according to a modernist plan by the famous Brazilian urbanist Lucio Costa, eliminating extensive areas of the cerrado biome (Brazilian savannah), which is being devastated by the spread of urbanisation and by agribusiness.

The city was planned with a core, where the buildings host all federal institutions. The city is zoned for specific uses, such as residential, hotels and businesses. Residents need cars to move around. Low-income housing is located in 'satellite cities' that are far away from the central neighbourhoods. The city has the fastest growing population in the country, with an 11.5 % increase from 2012 to 2017 ⁸⁴. The Paranoá lake was built in 1960 after an idea that dated from 1885 ⁸⁵. The lake supplies water for the Brazilian capital.

82. <https://agenciadenoticias.ibge.gov.br/agencia-sala-de-imprensa/2013-agencia-de-noticias/releases/16131-ibge-divulga-as-estimativas-populacionais-dos-municipios-para-2017>

83. <https://cidades.ibge.gov.br/brasil/df/brasilia/panorama>

84. Pesquisa Nacional por Amostra de Domicílios Contínuos (Pnad), do Instituto Brasileiro de Geografia e Estatística (IBGE), 2017, available at: https://www.correiobraziliense.com.br/app/noticia/cidades/2018/04/26/interna_cidadesdf.676318/populacao-do-df-tem-maior-crescimento-do-pais-entre-2012-e-2017.shtml

85. Superficial area: 37.5 km²; total volume: 498 million m³; average depth: 12.4 m; deepest depth: 40 m (Paranoá dam); perimeter: 111.8 km; length: 40 km; maximum width: 5 km

Challenges

- Lack of long-term public policy continuity.
- Severe water scarcity.
- Invasion of public lands and lack of land rights.
- Bureaucracy.
- Loss of biodiversity.
- Limited clean and active mobility.
- Low public environmental consciousness, civic and governmental engagement.



Figure 44. Community planting.

Objectives

Reforestation of the springs located in the northern watershed that flows to the lake Paranoá. Creation of a multi-stakeholder long-term governance process in the territory, which implements the project's vision and fosters public policies towards making the Serrinha do Paranoá a reference in the following areas.

- Water production.
- Ecotourism.
- Active mobility.
- Organic farming.
- Proper land rights and regulations.
- Active environmental and cultural citizen engagement.
- Creation of parks and public wildlife conservation units in a large ecological corridor that connects the National Park, the Paranoá Lake and the environmental preservation area of São Bartolomeu, integrating the current irregular settlements with new, more sustainable planned satellite cities.

Actions

- 115 water springs mapped and geo-referenced using an open-source, low-cost participatory methodology.
- 25 degraded water springs, rivers and lake shores recovered in public planting gatherings, with direct involvement of thousands of people from schools, local neighbours, public servants, NGOs, religious groups, military, boy scouts, motorcycle clubs, university students, pensioners and social and artistic movements.
- One environmental education, ecotourism and artistic large-scale project called 'Relíquia do cerrado' (the cerrado remnant).
- One park and four other conservation units at the final approval stage.
- Approximately 80 newly licensed organic farming families, supported by a Swedish cooperation project, for the next 5 years.
- Two organic markets inaugurated, and two more in the final approval stages.

- Seven mountain bike eco-trails and one urban cycling lane inaugurated, with the integration infrastructure plans at an advanced stage.
- Four parks in the initial stages of implementation on the Lake Paranoá shore.
- One public tree nursery producing 55 000 native trees a year for donation to the population and to support different environmental projects in Brasília.
- Four citizen councils and commissions implemented: the Rural Sustainable Development Council, the Local Planning Council, the Culture Council and the Environmental City Commission.
- One global environment facility project at the initial implementation stage, focused on using agroforestry techniques for ecological regeneration.



Figure 45. A view of Paranoá lake.

Stakeholder involvement

Public institutions such as the North Lake Regional Administration (Administração Regional do Lago Norte), the Environment Secretary, the Federal District parliament (Câmara Legislativa do DF), the University of Brasília and the Public Ministry of the Federal District (Ministério Público do Distrito Federal).

In addition, several NGOs and civil society institutions are involved such as: Oca do Sol, Rebas do Cerrado, Rodas da Paz, Ilumina, Junior Achievement, Ocupe o Lago, Calvaria Motoclube, Cavaleiros Solidários, Community City Hall of the North Lake (Prefeitura Comunitária do Lago Norte), Community City Hall of Taquari (Prefeitura Comunitária do Taquari), Residents' Association of the Palha Creek (Associação dos Moradores do Córrego do Palha), Agriorgânica, Instituto Alternativo Terrazul, Rede Terra do Futuro,

Instituto Providência, Terreiro Ilê Axé Oyá Bagan, Catholic Sanctuary of Our Lady of Schoenstadt (Santuário Católico Nossa Senhora de Schoenstadt), Parish of Our Lady of the Lake, Boy Scouts Lis of the Lake, Boy Scouts Gavião Real, Colégio do Sol, INDI School, Movement Save the Vulture (Movimento Salve o Urubu), or Embragea.

Implementation

From 2011 to present (2019).

Outcomes

- Mapping of water springs at the Serrinha do Paranoá that flow into the Paranoá lake.
- Protection and enhancement of ecosystems to increase water flows.
- Creation of conservation units.
- Wildfire management.
- Organic food production.
- Environmental education.
- Citizen engagement.
- Active recreation and clean mobility (bicycles).
- Increase from one certified organic farm to approximately 80.
- Increase from 11 water springs mapped and protected to 115 mapped, protected and under ecological restoration.

Success factors

Connection between civil and public institutions to ensure long-term governance and prevent government interruption of successful public policies.

Limiting factors and risks

- Corrosion of social bonds and exhaustion of civil-society protagonists.
- Governmental shifting of priorities or interruption of policies.



Figure 46. The National Congress seen from the Ministry of Foreign Affairs.

Lessons learnt

Creation of transversal governance networks between government and state institutions with civil society and international cooperation can ensure long-term impacts. The new governance arrangement allows projects to mature and flourish and creates new protagonist relations between communities, NGOs and public servants and the renewal of participatory movements that build on previous experiences and develop local social innovation.

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