



POLICY BRIEF 01

# Barcelona's strategies to increase and enhance urban green infrastructure



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## Barcelona's strategies to increase and enhance urban green infrastructure

This Policy Brief presents Barcelona's strategies for increasing and improving urban green infrastructure. Renaturing cities is essential for adapting urban areas to climate change. For this reason, in 2013, Barcelona initiated its first "Green and Biodiversity Plan 2020," followed by the "Urban Green Infrastructure Boost Programme" in 2017, a municipal government initiative. The need to update, affirm, and reinforce commitments led to the "Natura Plan 2030" in 2021, which built on citizen participation as an essential part of its development.

### Key Messages

- Green infrastructure planning must be strategic and comprehensive, focusing on equity, connectivity, and sustainability.
- It's essential to simplify and prioritise green actions and projects, selecting those with the greatest impact.
- Citizen participation is key to the success of green planning, ensuring community commitment and environmental conservation.
- Adopting renaturing and sustainable management practices is crucial to maintaining environmental quality without high maintenance costs.
- Collaboration from all municipal departments is required.





IMAGE: Barcelona City Council

## Integrating Green Infrastructure into Urban Planning

**Densely populated cities face the significant challenge of integrating nature into their urban planning, a crucial element for improving the quality of life of their inhabitants.** The lack of green spaces and natural areas within these intensive urban environments poses difficulties for sustainability and public well-being. The Natura Plan is Barcelona’s major strategy for the medium and long term to increase, renature, and enhance the city’s green surface. It is structured around three axes and two cross-cutting areas, comprising a total of twenty actions and one hundred projects. Increasing green infrastructure and improving all citizens’ access to urban nature, as well as conserving and promoting biodiversity, protecting species, and improving habitats and their connectivity, are among the main objectives of the Natura Plan.

In 2021, Barcelona City Council and 88 other citizen entities signed the Climate Commitment, a roadmap with a series of projects to make explicit the city’s commitment to the fight against climate change. To achieve this and to fulfil the Climate Commitment, the plan sets ambitious targets: to increase the green space by 1 m<sup>2</sup> per inhabitant, totalling 160 hectares between 2015 and 2030; to expand the renatured area by 100 hectares; to create 10 biodiversity refuges and 40 new projects within the ‘Hands on Green’ programme; and to double the number of participants in nature-related activities.





## A new strategic plan that complements urban planning

**Barcelona's urban fabric is dense and consolidated, making it challenging to create new urban parks. However, there are numerous options for increasing greenery in the city, such as enhancing existing green spaces, expanding them into previously unconsidered areas like superblocks, and through citizen initiatives that promote vegetation, including green roofs and walls.**



IMAGES: Barcelona City Council

\*The [Superblocks](#) program is the model for transforming the streets of the city of Barcelona, with the aim of recovering for citizens a part of the space currently occupied by private vehicles. Through green squares and axes, the aim is to achieve a healthy public space, greener, fairer and safer, which favours social relations and the local economy.

In this context, the Natura Plan of Barcelona strategically complements and reinforces the green infrastructure proposals of the Metropolitan Urban Master Plan (PDUM). Citizen participation has been crucial in the development of the Natura Plan 2030. The participatory process, carried out in various phases, has enabled the sharing of diagnoses, the agreement on challenges, and the definition of long-term objectives. Through the platform "decidim.barcelona", opinions, suggestions, and proposals from various stakeholders (technicians, citizens, representatives of the Barcelona City Council, and academics, among others) have been collected.

# A new green model

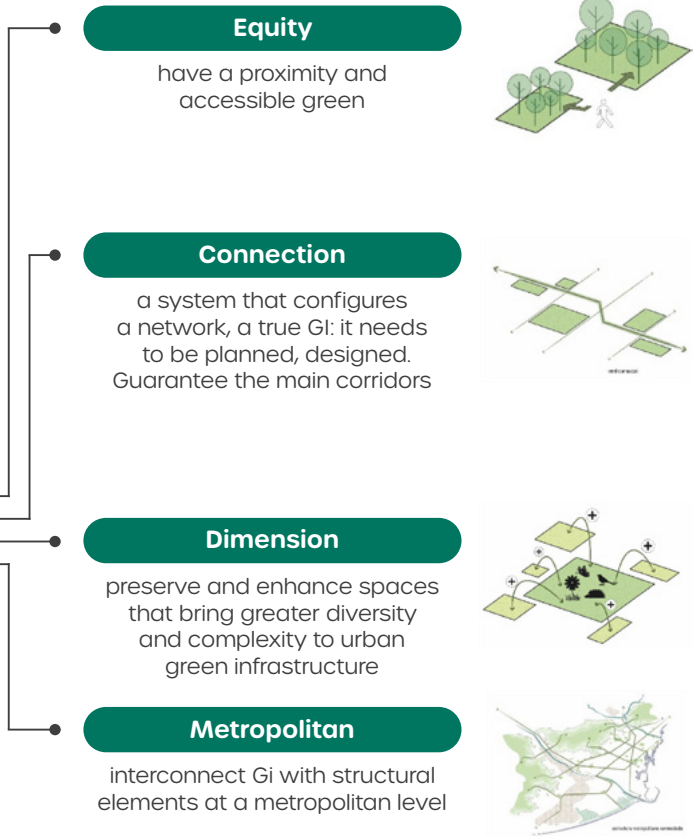
The Natura Plan proposes a new model for green spaces and a new approach to urban transformation. This strategy views greenery as a comprehensive system, both from an ecological and functional perspective, and for its capacity to deliver socio-environmental services to the community.

Renaturing urban green spaces involves transforming them, managing them in such a way that ecological processes are favoured and the spontaneous entry of flora and fauna is allowed, without losing aesthetic quality. This strategy is aimed at achieving social, health, and biodiversity conservation benefits. Key actions include the creation of biodiversity refuges, the installation of structures for wildlife, and the application of low-maintenance techniques in areas of natural interest.



IMAGES: Barcelona City Council

## ESTABLISHMENT OF A GREENERY MODEL



# Increasing greenery in the city

In December 2015, at the Paris Climate Conference (COP21), the city of Barcelona committed to increasing green space by 1 m<sup>2</sup> per inhabitant (approximately 160 new hectares of greenery) by the year 2030, as a measure to adapt to climate change. This goal was promoted through the 'Urban Green Infrastructure Boost Programme 2017–2030'.

The city of Barcelona has promoted green infrastructure and biodiversity through various plans and programmes that have served as a roadmap in recent years. The update and strengthening of commitments, driven by the climate emergency, have been crucial for the development of the new 'Natura Plan 2030'. This plan, enriched through a participatory process, aims to complement the future 'Metropolitan Urban Master Plan', with the goal of establishing a new urban green model based on the renaturing of the city.

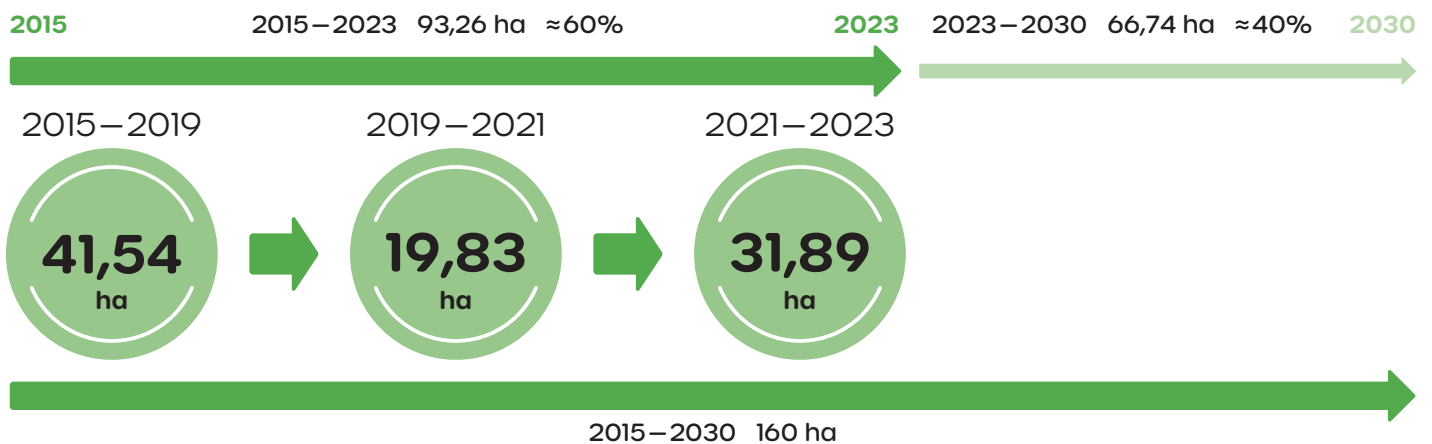
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IMAGE: Barcelona City Council

## Green spaces increase



## Policy Recommendations

- **Integrate Green Infrastructure into Urban Planning:** Develop policies that incorporate green infrastructure as a strategic component at all levels of urban planning, ensuring equity, connectivity, and scalability are considered in its design and implementation.
- **Simplify and Prioritise Green Infrastructure Projects:** Establish clear criteria for prioritising green infrastructure actions and projects, focusing on those with the greatest potential impact on urban sustainability and resource efficiency.
- **Encourage Citizen Participation:** Implement participatory mechanisms that involve a wide range of stakeholders and the public in the planning and management of green infrastructure, aiming to increase community engagement and social cohesion in the conservation of the natural environment.
- **Promote Renaturing and Sustainable Management Practices:** Develop training and awareness programmes for all municipal departments on the benefits and methodologies of renaturing and managing low-maintenance areas, ensuring their cross-departmental and effective implementation.

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