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# THE RIGHT TO ACCESS URBAN GREEN SPACES

## AN (IN)EQUALITY ISSUE IN CONTEMPORARY CITIES

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PANEL - DISABILITY, ACCESSIBILITY AND MOBILITY IN PHYSICAL SPACE

INTERNATIONAL CONGRESS ON DISABILITY AND CITIZENSHIP

Faculty of Arts and Humanities, University of Porto

5<sup>th</sup> and 6<sup>th</sup> September 2018



**Project Beyond the Greenness: gardens and public parks as response to the Socioenvironmental challenges in contemporary cities.**

**Doctoral Programme in Ecology and Environmental Health**  
FP-ENAS | FCT | UFP

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# Principle

## Urban Inequality undermines sustainability efforts

*Efforts to reduce these inequalities and make cities more inclusive help cities realize their full potential*

*“Pathways to Urban Sustainability: Challenges and Opportunities for the United States”  
National Academies of Sciences, Engineering, and Medicine (2016, p.3)*

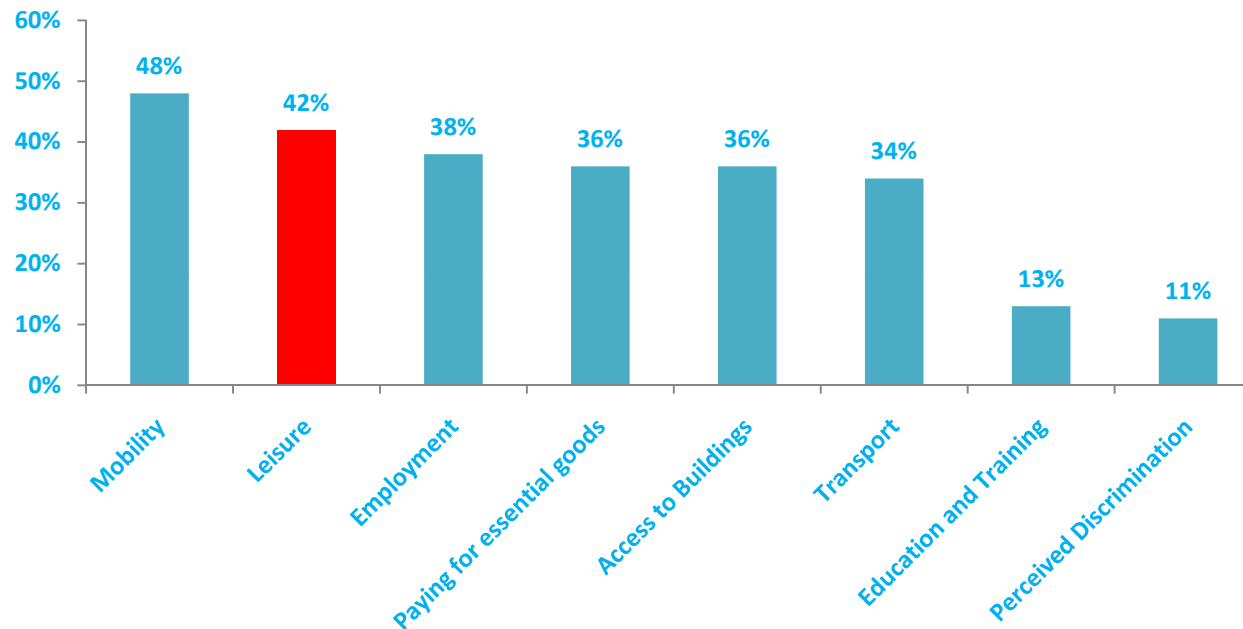
By 2050, it is expected that about 6.25 billion people, **15 per cent of whom are persons with disabilities, will be living in urban centers.** Urbanization has the potential to be an engineer for achieving **sustainable and inclusive development for all.** The **current lack of environmental accessibility faced by people with disabilities, in particular in many cities in the world, presents a major challenge (United Nations, 2016).**

INTRODUCTION



According to INE (2011) – Statistics National Institute – the higher population incidence with disability is located in the North of mainland Portugal (34 %).

Main barriers to social participation reported by Portuguese citizens with disabilities are (Pinto & Pinto, 2017): mobility (48%), leisure (42%), access to the built environment (36%), access to employment (38%) and the capability to pay for essential goods (36%).



People with disabilities reporting barriers, by domain, 2012 (% , PT and EU-27)

Source: Eurostat (2015). Barriers to the social integration of disabled people – EHSIS, 2012 (hlth\_dsi090); Pinto & Pinto (2017).

Improving access to **green spaces** in cities is included in the **UN Sustainable Development Goal 11.7**



By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and **persons with disabilities**



New Urban Agenda adopted at Habitat III  
“We commit ourselves to promoting safe, inclusive, accessible, green and quality public spaces (...) that are multifunctional areas for **social interaction and inclusion**, human health and well-being”).

11 SUSTAINABLE CITIES AND COMMUNITIES



## ACCESSIBILITY

*Feature or quality of any physical or virtual environment, space, facility or service that is capable of accommodating the needs of users of varying abilities or disabilities to understand, get access to or interact with. Accessibility also refers to technical standards that are mandated nationally (United Nations, 2016).*



## THE BENEFITS OF UGS

Phytoremediation of air pollutants, **minimizing their impacts on human health** (Kuo, 2015; Sturm & Cohen, 2014; Lee & Maheswaran, 2011);

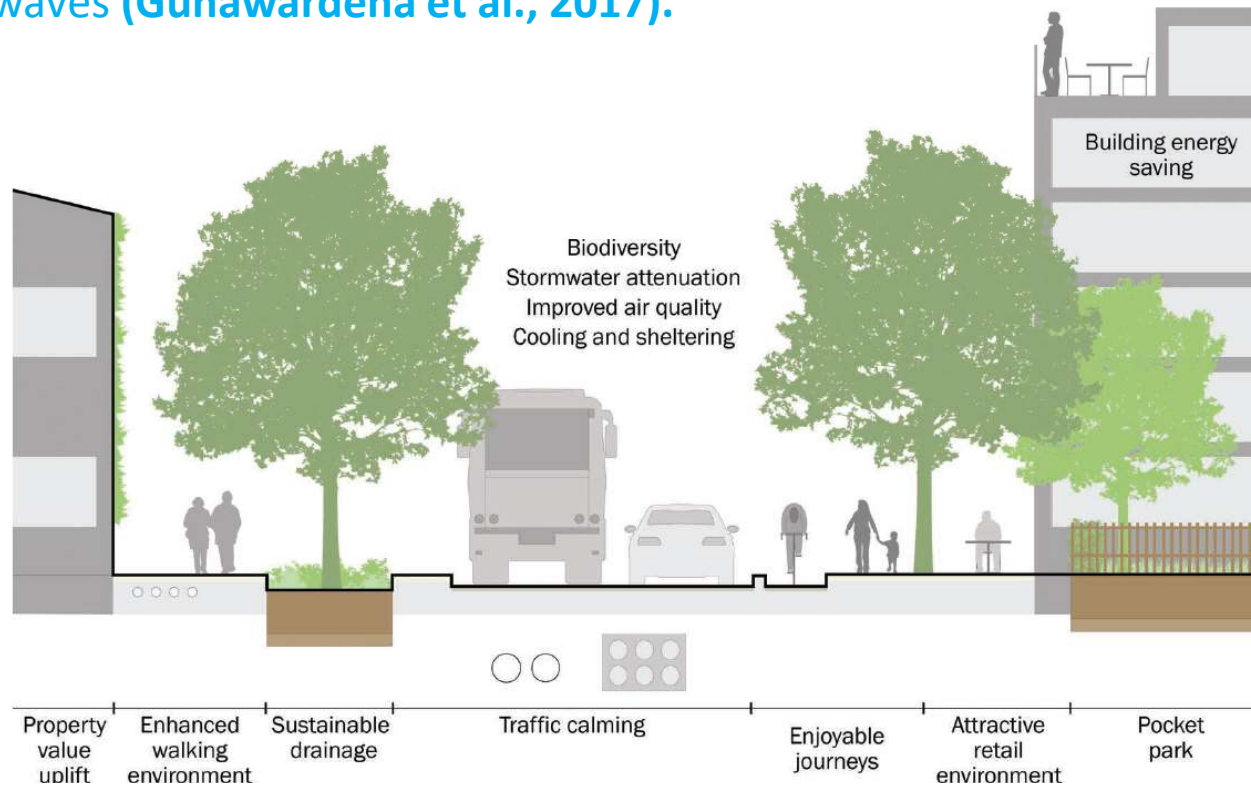


This is particularly important in cities because **traffic emissions is a very serious problem** (Anenberg, et al., 2017);



The frequency of UGS improve human health, namely acting as a **protection factor** in birth outcomes (Frumkin et al., 2017; Dadvand et al., 2012), lung cancer (Porcherie, et al., 2017), cardiovascular diseases (Tamosiunas et al., 2014), mental health, metabolic diseases, mortality, physical activity and respiratory diseases.

The benefits of UGS (Vidal, Maia, Barros & Vilaça, 2018): improvement of social and mental health (Schipperijn et al, 2010), mitigate Climate Change impacts (WHO, 2017; Kabisch et al.,2016; Mathey & Röbler, 2011), due to the fact that trees could regulate urban heat waves (Gunawardena et al., 2017).



Source: (TDAG, 2014)

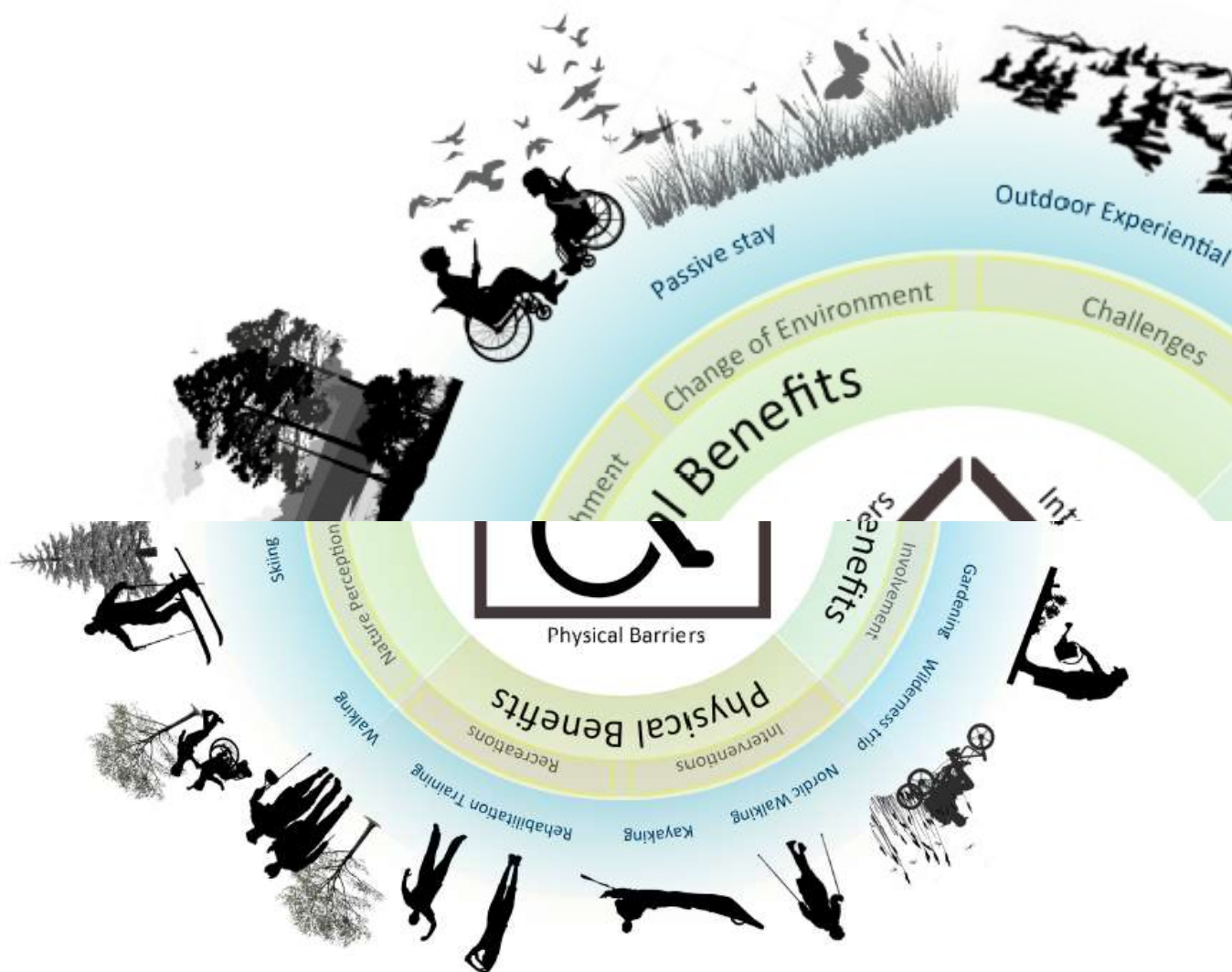
Persons with disabilities face widespread lack of accessibility to built environments, from roads and housing, to **public buildings and spaces** and to basic urban services such as sanitation and water, health, education, transportation, and emergency response and resilience programmes.



Barriers to information and communications, including relevant technologies and cultural attitudes including negative stereotyping and stigma also **contribute to the exclusion and marginalization of persons with disabilities in urban environments** (Kabue, 2015).



Environmental pollution and individual stress are significant burdens to the majority of the urban population, **especially the disabled** (Doxson et al., 1987; Grahn and Stigsdotter, 2003; Herzog et al., 2003), because they are more exposed and vulnerable to this phenomena.



Source: Zhang et al., (2017) Health-Promoting Nature Access for People with Mobility Impairments: A Systematic Review.

# *Are public gardens accessible for all?*

## Observational Exploratory Approach, Case Study: Arca d'Água Garden

METHODOLOGY



Source: <https://www.google.com/maps/place/Jardim+de+Arca+d'+Água/@41.1719424,8.611966,15z/data=!4m5!3m4!1s0x0:0x4afde3ff12767952!8m2!3d41.1719424!4d-8.611966>

Parish  
Paranhos

## Jardim Arca d'Água



JARDIM ARCA D'ÁGUA

Imagem: Susana Ribeiro

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Percursos recomendados

New York Times sugere

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Camélias

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### Ruas & Jardins

Parques, Jardins,

Local: Praça Nove de Abril, 4249-004 Porto

Tel.: +351 228349499

Website: <http://www.cm-porto.pt>

Custo: Gratuito(-)

Tags: [Acessibilidades](#)

Circuitos  
Turísticos

Revival Architecture  
Walking Tour - E Fun  
Tours

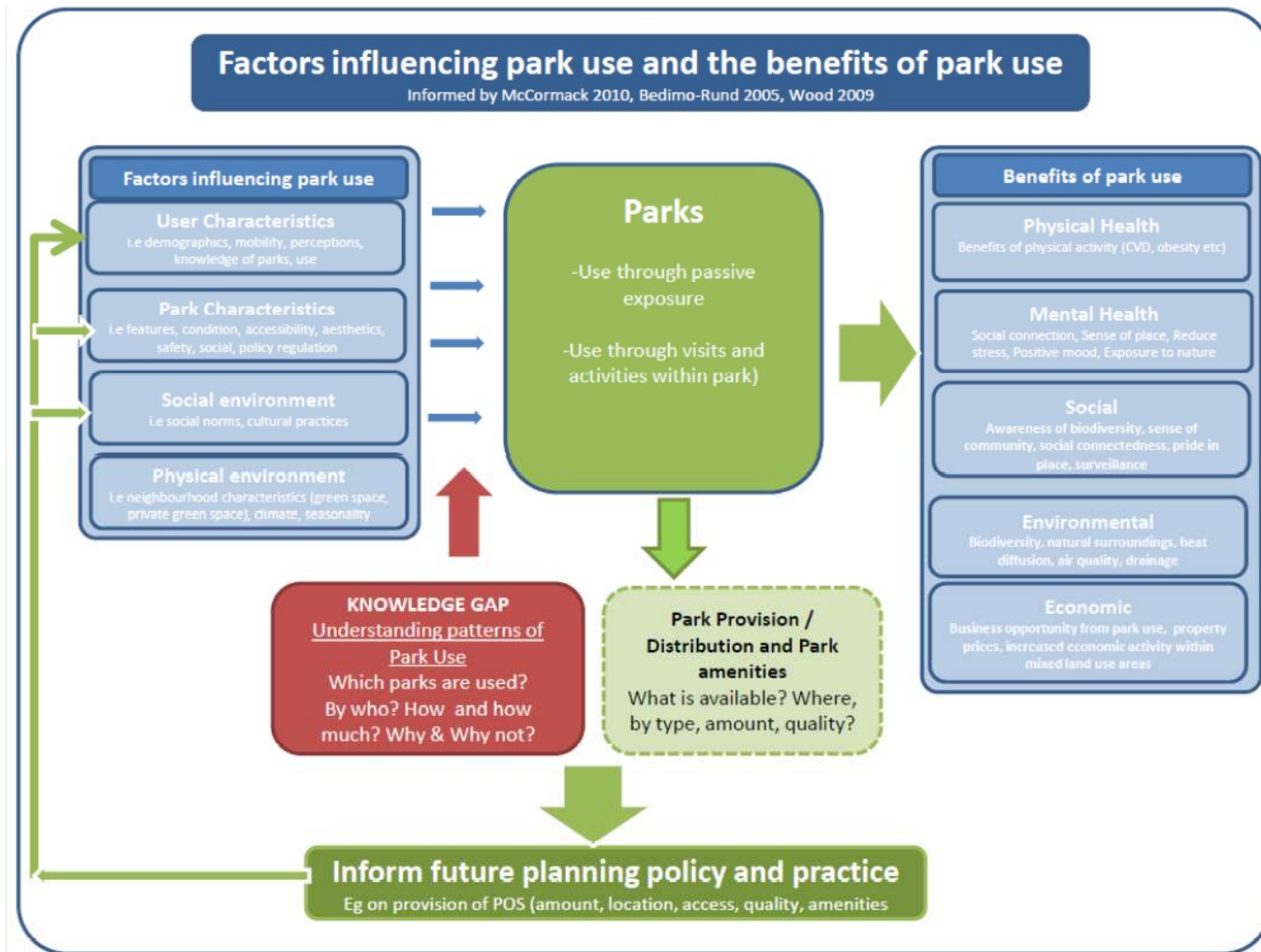
Descrição

Acessível a pessoas com limitação: Física

Source: <http://www.visitporto.travel/Visitar/Paginas/Descobrir/DetalhesPOI.aspx?POI=1029&AreaType=1&Area=7>

POST – Public Open Space Tool → Section 3 – Infrastructures and Facilities

METHODOLOGY - INSTRUMENT



Source: Analysis model developed by Bull (2014) with contributions by Bedimo-Rund (2005), Wood (2009) and McCormack (2010)



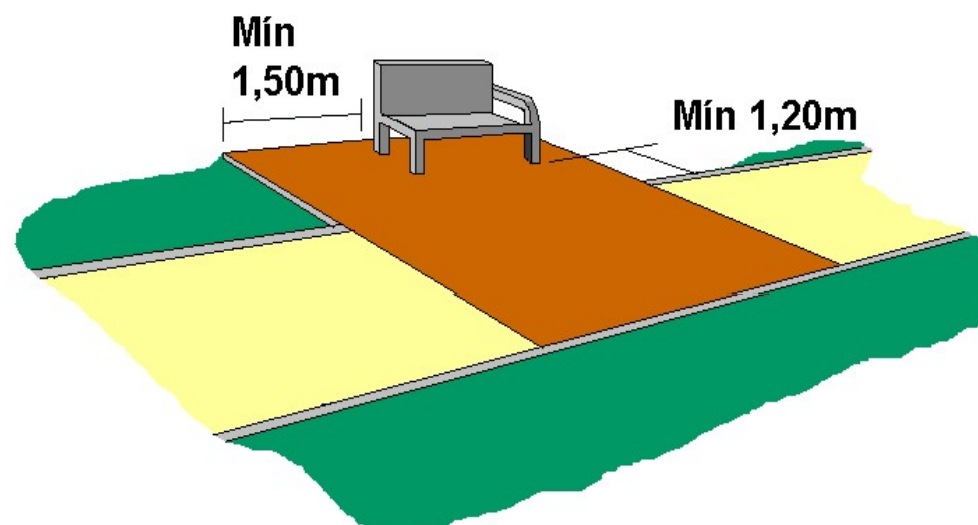
Public Bathroom at Arca d' Água Garden, Porto.

## Accessibility?



Seat at Arca d'Água Garden, Porto.

The space next to the seat, at least 1.50m wide, allows you to maneuver a wheelchair and park a baby car.



Source: ACAPO, "Como criar espaços verdes mais acessíveis", Vol.2:  
<http://www.acapo.pt/deficiencia-visual/documentos-e-publicacoes/recomendacoes-tecnicas/como-criar-espacos-verdes-mais>



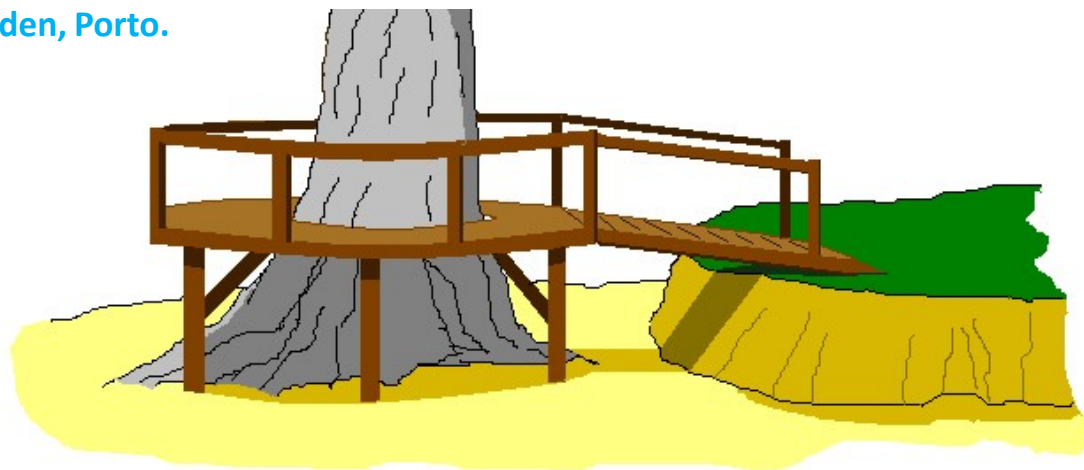
Seat in a terrace at Arca d'Água Garden, Porto.



Terrace without fence at Arca d'Água Garden, Porto.

A platform with an access ramp, both with guards, around the trunk of a tree allows the exploration in comfort and safety without damaging the surrounding terrain.

Source: ACAPO, "Como criar espaços verdes mais acessíveis", Vol.2:  
<http://www.acapo.pt/deficiencia-visual/documentos-e-publicacoes/recomendacoes-tecnicas/como-criar-espacos-verdes-mais>





Open terrace with fence at Arca d'Água Garden, Porto.

KEY FINDINGS

A. People with some type of disability are more vulnerable to pollution and climate change impacts;

B. Cities are unequal spaces;

C. Make gardens and public parks accessible for all are one of the biggest challenges to pursue the 2030 agenda of Sustainable Development Goals;

D. Gardens located close to residential and educational areas are those with the higher priority;

E. According to “*Associação Salvador – Portugal Acessível*” only “Parque da Cidade” and the Gardens of “Palácio de Cristal” are accessible;

F. It is urgent to rethink public policies in which the interest of all is safeguarded  
- **Environmental Justice.**

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*A city that is well designed is well designed for all.  
Accessibility, as a collective good that benefits all, should  
therefore be considered a central component of good policy to  
achieve inclusive and sustainable urban development.*

Recommendations from a group of experts at the UNDESA-UN Habitat Forum on Disability Inclusion and Accessible Urban Development, Nairobi, 28-30 October 2015.

## Contact

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**Thank you!**

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