

HACK YOUR CITY: KEY FACTS ON WORLD ENVIRONMENT DAY

- By 2050, with urban populations more than doubling in size, **nearly 7 of 10** people in the world will live in cities¹.
- Cities consume over two-thirds of the world's energy and account for over 70% of global greenhouse gas emissions².
- Cities, and their citizens, must be at the forefront of delivering a safer climate neutral world by mid-century, as stated in the <u>Paris Agreement</u>³, to avert a catastrophic climate and possible further pandemics.
- Even though the availability of urban green spaces in the world's big cities increased in the last 15 years by 4.11% and at the same time the accessibility of urban green spaces increased by 7,1%⁴, only a few cities could fully meet the World Health Organization's (WHO) standards on availability that set a minimum of 9 m2 of green spaces per inhabitant⁵, let alone the ideal value of 50 m2 per capita.
- Even for the cities that do meet some standards, it does not necessarily translate in an equal and fair access to green space for all citizens.

1

https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects. html

² <u>https://www.c40.org/why_cities</u>

³ https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

⁴ Huang, C.; Yang, J.; Lu, H.; Huang, H.; Yu, L. Green Spaces as an Indicator of Urban Health:

Evaluating Its Changes in 28 Mega-Cities. Remote Sens. 2017, 9, 1266.

⁵ A. Russo, G.T. Cirella Modern compact cities: How much greenery do we need? International Journal of Environmental Research and Public Health, 15 (2018), p. 2180.

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- Adopting the WHO standard as benchmark, our four cities rank in this order: Rome with 39m2/capita⁶, Madrid 21m2/capita⁷, Mexico City 6m2/capita⁸ and Bogotá 5m2/capita⁹. None of them meet the ideal value of 50 m2 per capita.
- In many countries the recent lockdown has imposed the closure of urban parks and green spaces that has worsened the living condition of many people¹⁰. Especially low socioeconomic status groups suffer the most due to low mobility and shrinkage in economic and social capital¹¹.
- People's access to green spaces can have numerous benefits for citizens.
 Spending at least 120 minutes a week in nature is associated with good health, well-being and quality of life¹².
- Health benefits outcomes range from improved perceived general health and subjective well-being, better pregnancy outcomes (e.g., birth weight)¹³, better cognitive function¹⁴, improvement in mental health linked to improvements in behavioural development (reduced difficulties, emotional

⁶ Based on the data provided by TravelBird, Green Cities Index, <u>Rome</u>. Nature reserve, forest and woodland not included.

⁷ Based on the data provided by TravelBird, Green Cities Index, <u>Madrid</u>. Nature reserve, forest and woodland not included.

⁸ Based on data reported in María del Carmen Meza Aguilar, José Omar Moncada Maya. Las Áreas Verdes De La Ciudad De México. Un Reto Actual. Revista electrónica de geografía y ciencias sociales, Universidad de Barcelona. ISSN: 1138-9788. Depósito Legal: B. 21.741-98 Vol. XIV, núm. 331 (56), 1 de agosto de 2010. http://www.ub.edu/geocrit/sn/sn-331/sn-331-56.htm ⁹ Dadep 2019

¹⁰ Cortinez-O'Ryan, Andrea, Moran, Mika Ruchama, Rios, Ana Paola, Anza-Ramirez, Cecilia, & Slovic, Anne Dorothée. (2020). Could severe mobility and park use restrictions during the COVID-19 pandemic aggravate health inequalities? Insights and challenges from Latin America. Cadernos de Saúde Pública, 36(9), e00185820. Epub October 05, 2020.https://dx.doi.org/10.1590/0102-311x00185820

¹¹ Rebecca S Geary, Benedict Wheeler, Rebecca Lovell, Ruth Jepson, Ruth Hunter, Sarah Rodgers, A call to action: Improving urban green spaces to reduce health inequalities exacerbated by COVID-19, Preventive Medicine, 145, 2021, https://doi.org/10.1016/j.ypmed.2021.106425.

¹² White, M.P., Alcock, I., Grellier, J. et al. Spending at least 120 minutes a week in nature is associated with good health and wellbeing. Sci Rep 9, 7730 (2019).

¹³ Dzhambov, A. M., Dimitrova, D. D., & Dimitrakova, E. D. (2014). Association between residential greenness and birth weight: Systematic review and meta-analysis. Urban Forestry & Urban Greening, 13(4), 621–629.

¹⁴ Taylor, A. F., & Kuo, F. E. (2009). Children with attention deficits concentrate better after walk in the park. Journal of Attention Disorders, 12(5), 402–409

LET'S GREEN OURCITIES

symptoms and peer relationship problems)¹⁵, **lower risk of a number of chronic diseases in adulthood**¹⁶ (e.g., diabetes and cardiovascular conditions, obesity, asthma), **accelerating recovery from surgery**, **reduced hospitalisation**¹⁷ and **premature mortality**¹⁸.

- While as a micro-restorative measure, **spending 30 minutes per session in an urban square reduces stress, anxiety, anger, fatigue, generates better cognitive performance and increases happiness.**¹⁹
- Many studies have highlighted the importance of proximity and easy access to high-quality green space that can be used for recreation. The World Health Organization recommends a maximum distance of 300 metres to the nearest green space (of at least 1 hectare)²⁰.
- Maintaining or increasing the provision of high-quality and accessible urban green and civic spaces, particularly for marginalised groups, is one of the UN Sustainable Development Goals²¹ and its importance is amplified in the COVID-19 pandemic.
- Urban greenspaces should be considered not only a public health and social investment but a chance to rebalance our relationship with nature, protecting us against future pandemics.
- Generally in cities, groups with lower socioeconomic status are exposed to poorer health and reside in areas with greater environmental problems. The

¹⁵ White, M.P., Elliott, L.R., Grellier, J. et al. Associations between green/blue spaces and mental health across 18 countries. Sci Rep 11, 8903 (2021). https://doi.org/10.1038/s41598-021-87675-0

¹⁶ (White et al. 2019)

¹⁷ (Heo and Bell 2019)

¹⁸ Hartig T, Astell-Burt T, Bergsten Z, et al.2020. Associations between greenspace and mortality vary across contexts of community change: a longitudinal ecological study. J Epidemiol Community Health;74:534-540.

 ¹⁹ San-Juan, César & Subiza-Pérez, Mikel & Vozmediano, Laura. (2017). Restoration and the City: The Role of Public Urban Squares. Frontiers in Psychology. 8. https://doi.org/10.3389/fpsyg.2017.02093

https://www.google.com/url?q=https://www.who.int/sustainable-development/cities/health-risks/urban-gree n-space/en/&sa=D&source=editors&ust=1621446269013000&usg=AOvVaw3WhOoCE-rBjX2E1U-8ia46

²¹ United Nations (2016) Sustainable development goals and related targets, New York. https://sustainabledevelopment.un.org/topics.

LET'S GREEN OURCITIES

development of green spaces in their neighbourhoods and their access to them could promote benefits to their health ²².

- In 34 European countries, socioeconomic inequalities were reduced in neighbourhoods with good access to green space²³.
- Accessible green spaces can help decrease the effects of multiple deprivation and contribute to distributive justice.²⁴
- By investing in urban public green spaces, additional economical, educational, environmental and societal benefits are proved to contribute to make our city life better²⁵.
- Green and civic spaces are a means to overcome economic distress, providing recreation, tourism, cultural heritage, food, drinking water, and jobs for their management and maintenance²⁶.
- A thriving nature within cities helps us mitigate and adapt to the scorching temperatures caused by rising carbon emissions and climate change.
- Cities should be designed and planned with the benefits of nature in mind and therefore mayors, urban planners and public officials must share the same goal.
- Urban green space interventions need multidisciplinary and cross-sectoral collaborations starting from the involvement of the local community and

²² Maas, Jolanda et al. "Green space, urbanity, and health: how strong is the relation?." Journal of epidemiology and community health vol. 60,7 (2006): 587-92. doi:10.1136/jech.2005.043125

 ²³ O'Brien, Liz, et al. "Social and environmental justice: dive Bogorsity in access to and benefits from urban green infrastructure–examples from Europe." The Urban Forest. Springer, Cham, 2017. 153-190.
 ²⁴ Waving the green flag for peace.Public spaces as peacebuilding places in colombian citiesSylvie Nail*Lorena Erazo*

²⁵ WHO Regional Office for Europe. 2016. Urban green spaces and health – A review of evidence. Retrieved Jul 31 2017, from this <u>link</u>

²⁶ Motoi, Gabriela. "THE CHALLENGES AND OPPORTUNITIES OFGREEN ECONOMY AND GREEN JOBS.



intended green space users. This will ensure benefits for residents and the city as a whole²⁷.

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²⁷ Khreis, Haneen & Nieuwenhuijsen, Mark. (2018). Integrating Human Health into Urban and Transport Planning: A Framework. 10.1007/978-3-319-74983-9.