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# Editorial: Impacts of urban green spaces on environmental perceptions and social life

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#### Editorial on the Research Topic

Impacts of urban green spaces on environmental perceptions and social life

As the editors of the Research Topic "*The Impact of Urban Green Spaces on Environmental Perceptions and Social Life*", it was our honour to receive several interesting research papers and review articles. This Research Topic consists of a wide range of studies that examine the impact of urban infrastructures and green spaces on urban life and citizens at different timeframes (e.g., different development stages of cities or during a crisis such as the COVID-19 pandemic) and at different geographical scales (e.g., at an urban level such as urban neighbourhood or at a regional level such as river deltas). In this editorial paper, we present an overview of the main findings and conclusions of the included articles.

Martens et al. used the "Berlin Urban Green Space Participation Index" ("Beteiligungsindex Berliner Stadtgrün" BBS) in a study to measure the awareness and willingness of Berliners to participate in and support urban biodiversity in the city. In this research, a face-to-face survey was conducted with 431 residents in four districts of Berlin, and priority was measured with different levels of biodiversity, connection with residential green space, neighborhood and city, connection with nature, and willingness to take joint actions around green space. The results of this study showed that there is a direct and significant relationship between access to green space in residential areas and the quality of life of residents. While the overall willingness to participate in measures to support urban green spaces was relatively high, research indicators showed substantial differences in activities that are more or less understood. This research revealed that the existence of urban green spaces is an important factor in increasing the participation and cooperation of citizens, and should be considered in urban management so that the potential of these spaces is fully utilized.

Through examining 55 urban parks in the city of Chengdu in China, Tan et al. assessed how to access urban parks based on resident experiences. In this research, the

spatial accessibility of urban parks under four different travel modes (i.e., driving, transit, cycling, and walking) and multiple modes were analyzed by integrating visitor experiences and real travel time. The results of this research showed that having access to parks during peak hours and weekends is affected by driving and multiple modes, while other travel modes had little effect. In addition, spatial congestion during peak hours on weekdays was more noticeable under driving modes, while there were obvious cold spots that were constantly being distributed to the riders. This study concluded with a number of policy recommendations that decision makers can adopt to improve the entertainment, economic, and tourism performance of urban parks.

In a similar study conducted by Talal and Gruntman in Tel Aviv, Israel, it was shown that during the COVID-19 pandemic, urban nature sites were critical places for promoting human health and well-being, and the factor of access to these sites played a critical role in increasing the amount of travel and presence of people in these spaces. The study also showed that 53% of the surveyed participants reduced their visit to natural spaces during the epidemic, while 26% increased their visit, 21% did not change, and only 1.7% visited urban natural sites for the first time. Moreover, the results of this research showed that the perceived health benefits associated with urban nature sites can play a key role in motivating visits during the pandemic. The effects of such perceived health benefits were more important, compared to specific environmental features or amenities of these sites.

In a study concerning spatiotemporal disparities in greenway use intensity in Beijing, conducted by Qiu et al., was raised as an important factor in using the services of greenways by citizens. The study showed that there are apparent scale differences and spatial heterogeneity in the intensity of greenway use among social, economic and built environment factors. Housing price, residential density, the density of historic resources, and the quality of greenways contribute to the intensity of greenway use, which was weak in the central areas and strong in the inner suburbs of Beijing. The results of this research highlighted that the layout of green paths should be combined with rivers, historical resources and green spaces in order to increase their attractiveness.

Similar results were reported in Tabriz, Iran. Mahmoudzadeh et al. argued that despite the new urbanization developments and the inequitable distribution of green spaces, the connection of green corridors and greenways can play a significant role in the sustainable development of the city. The authors concluded that given green spaces in the outskirts of the city have expanded more than in the city centre, the possibility of creating a green and ecological path and linking it to the city centre can lead to an increase in the use of green spaces by citizens.

In a study conducted by Wang et al. on a regional scale in China, 41 cities in the Yangtze River Delta region were examined. The study showed that the development and improvement of transportation infrastructure and its quality have contributed to an increase in the resilience and preservation of ecological and green resources. Due to the heterogeneous and unbalanced development of transportation in this region, the development of new transportation infrastructure in underdeveloped cities and their integration with the existing infrastructures can improve the resilience of cities in the Yangtze River Delta region, whilst contributing to their sustainable development.

In a study on air pollution in Chinese temples, Wang and Yu found out that the attitudes of visitors concerning air pollution and their attention to the environment have changed. The results highlighted that the individual support of visitors for the case-study temples' measures that aim to control air pollution have been very positive. The survey conducted in this research revealed that the educational background of the visitors and the number of annual visits are the main factors influencing respondents' satisfaction with the air pollution control measures implemented by the temples. The survey also provided valuable information for policymakers. The positive attitude of temple visitors towards the air pollution control measures demonstrated that people prefer high air quality to maintain religious rituals.

Developing new and improving existing urban green spaces play a significant role in enhancing the quality of life of citizens. According to the studies conducted on this Research Topic, ensuring an easy and convinient access to urban green spaces leads to an increase in the frequency of use of such spaces by citizens. The presence of people in urban green spaces, and thereby an increased level of social interactions and the liveability of citizens, guarantee the sustainable development of cities and societies. The COVID-19 pandemic and the public health response to the crisis has further highlighted the importance of urban green spaces and their significance for the individual and collective health of citizens.

According to the sustainable development agenda, outlined in the United Nation's Sustainable Development Goals 2030, paying attention to the ecological aspects of cities, including their green spaces, not only improves citizens' quality of life, but also leads to higher levels of resilience and targeted growth. Given the major issues facing the world today, i.e., climate change, global warming, and the epidemic of viral diseases, taking into account urban green spaces and their distribution within cities should be at the core of any urban planning and design interventions.

### Author contributions

FA, SS, and ES contributed to conception and design of the study. FA organized the database. FA wrote the first draft of the manuscript. SS and ES wrote sections of the manuscript. All authors contributed to manuscript revision, read, and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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