

Environmental Rule of Law: Protecting Green Spaces in Cities for Health and Biodiversity Conservation

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Table of Contents

Abstract.....	3
1.0 Introduction	3
2.0 Role of Green Spaces in Cities.....	5
3.0 Protecting Green Spaces in Cities through Environmental Rule of Law for Health and Biodiversity Conservation	8
4.0 Conclusion	10
References	11

Environmental Rule of Law: Protecting Green Spaces in Cities for Health and Biodiversity Conservation

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Abstract

This paper discusses how environmental rule of law can be bolstered by protecting green spaces in cities. The paper defines green spaces. It notes that green spaces in cities provide important benefits for both people and planet including through improving human health and supporting biodiversity conservation. Despite their role in promoting sustainability, the paper notes that green spaces in cities are facing mounting threats which undermine human health and biodiversity conservation efforts. In light of the foregoing, the paper argues that it is imperative to strengthen environmental rule of law in order to effectively nurture green spaces in cities for people and planet. The paper suggests how green spaces in cities can be effectively protected for health and biodiversity conservation.

1.0 Introduction

Environmental rule of law is a powerful tool that seeks to strengthen environmental governance for Sustainable Development. This concept seeks to extend the fundamental tenets of rule of law to environmental governance for sustainability¹. It has been observed that environmental rule of law integrates environmental needs with the essential elements of the rule of law thus providing the basis for improving environmental governance². The United Nations Environment Programme (UNEP) notes that environmental rule of law is pivotal for Sustainable Development, integrating environmental needs with key legal principles, hence improving environmental governance³. At its core, environmental rule of law ensures that environmental legal frameworks and governance structures are robust, transparent, and effective in order to effectively protect the environment and promote Sustainable Development.

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¹ International Union for Conservation of Nature., 'Environmental Rule of Law' Available at <https://iucn.org/our-union/commissions/world-commission-environmental-law/our-work/history/foundational-documents-4> (Accessed on 22/07/2026)

² United Nations Environment Programme., 'Environmental Rule of Law' Available at <https://www.unep.org/topics/environmental-law-and-governance/promoting-environmental-rule-law/environmental-rule-law> (Accessed on 22/07/2026)

³ United Nations Environment Programme., 'Promoting Environmental Rule of Law' Available at <https://www.unep.org/topics/environmental-law-and-governance/promoting-environmental-rule-law> (Accessed on 22/07/2026)

Promoting environmental rule of law is therefore vital for both people and planet. It has been observed that this concept provides a framework for addressing the gap between environmental laws in text and in practice⁴. Environmental rule of law focuses on several environmental elements including development, enactment and implementation of sound and effective environmental laws and policies⁵; respect for environmental rights including the right to a clean, healthy and sustainable environment⁶; and access to information, public participation and access to justice in environmental matters⁷. By strengthening environmental rule of law, it is possible to ensure robust environmental governance systems including through sound management and access to natural resources, gender equality in environmental governance, access to justice in environmental matters and the meaningful involvement of all people including indigenous peoples and local communities in environmental decision-making processes⁸. In addition, it has been observed that environmental rule of law ensures the presence of robust, transparent and effective environmental laws, policies and institutions that are essential in responding to increasing environmental pressures including climate change, pollution, and biodiversity loss that threaten the ecological integrity of the Earth, in a way that respects fundamental rights and principles of justice, inclusivity, equity and fairness⁹.

Despite its appropriateness as a tool that can ensure that environmental laws and policies are widely understood, respected, and enforced and the benefits of environmental protection are enjoyed by people and planet, achieving environmental rule of law remains a challenge all over the world. For example, it has been observed that challenges such as weak institutions, inadequate financial, technical and human capacities, limited access to information, public participation and access to justice in environmental matters, and lack of political incentives to prioritise environmental conservation undermine the role of environmental rule of law in fostering sustainability¹⁰. These shortcomings in

⁴ Environment Law Institute., 'Environmental Rule of Law' Available at <https://www.eli.org/environmental-rule-law> (Accessed on 22/07/2026)

⁵ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law' Available at https://iucn.org/sites/default/files/2022-10/world_declaration_on_the_environmental_rule_of_law_final_2017-3-17.pdf (Accessed on 22/07/2026)

⁶ Ibid

⁷ Ibid

⁸ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law' Op Cit

⁹ Ibid

¹⁰ The Access Initiative., 'The Road to Realizing Environmental Rights In Africa: Moving From Principles to Practice' Available at https://accessinitiative.org/wp-content/uploads/2022/10/22.01_rep_access_initiative_v583-4.pdf (Accessed on 22/07/2026)

environmental rule of law contribute to environmental threats including the triple planetary crisis of climate change, biodiversity loss and pollution with negative impacts on human and environmental health¹¹. Consequently, it is imperative to bolster environmental rule of law for the benefit of both people and planet.

This paper discusses how environmental rule of law can be bolstered by protecting green spaces in cities. The paper defines green spaces. It notes that green spaces in cities provide important benefits for both people and planet including through improving human health and supporting biodiversity conservation. Despite their role in promoting sustainability, the paper notes that green spaces in cities are facing mounting threats which undermine human health and biodiversity conservation efforts. In light of the foregoing, the paper argues that it is imperative to strengthen environmental rule of law in order to effectively nurture green spaces in cities for people and planet. The paper suggests how green spaces in cities can be effectively protected for health and biodiversity conservation.

2.0 Role of Green Spaces in Cities

Green spaces in cities also known as urban green spaces are areas with vegetation within or partly embraced by urban fabric¹². Green spaces in cities have also been defined as areas within urban environments that are intentionally designed, developed, or preserved as natural or semi-natural spaces with vegetation, trees, plants, and open areas¹³. In addition, it has been observed that green spaces in cities are areas within cities and urban environments that are intentionally designed to include vegetation and are open to the public¹⁴. Green spaces in cities comprise of urban greenery with recreational or ornamental character and are accessible to the public¹⁵. Green spaces in cities include gardens, parks, green inner spaces of city blocks, city squares with greenery, ponds, lakes and small water bodies located in urban areas¹⁶.

¹¹ Ibid

¹² Concept: Urban Green Space Ecology., Available at <https://netzerocities.app/resource-3308> (Accessed on 22/07/2026)

¹³ Urban Green Spaces Brief., Available at <https://amalities.africa/wp-content/uploads/2023/09/UGRL-Urban-Green-Spaces-Brief-Good-Practices.pdf> (Accessed on 22/07/2026)

¹⁴ What Is Urban Green Space? (And Why It Matters)., Available at <https://unity.edu/distance-education-blogs/urban-green-space/> (Accessed on 22/07/2026)

¹⁵ Concept: Urban Green Space Ecology., Available at <https://netzerocities.app/resource-3308> (Accessed on 22/07/2026)

¹⁶ Ibid

Green spaces in cities provide numerous benefits for people and planet. For instance, it has been observed that green spaces in cities contribute significantly to the health and well-being of both city residents and the environment at large¹⁷. Most cities and urban settings are characterized by their dense infrastructure and high concentration of people, often at the expense of natural environments¹⁸. Green spaces in cities are therefore an effective solution to this challenge towards ensuring sustainable urban development¹⁹.

In particular, urban green spaces support human health and well-being. The World Health Organization (WHO) correctly notes that modern life style especially in cities and urban areas is associated with chronic stress, insufficient physical activity and exposure to anthropogenic environmental hazards²⁰. As a result, it has been observed that green spaces in cities including parks, playgrounds, and residential greenery can address this challenge by promoting mental and physical health, and reducing morbidity and mortality in urban residents by providing psychological relaxation and stress alleviation, stimulating social cohesion, supporting physical activity, and reducing exposure to air pollutants, noise and excessive heat²¹. Green spaces in cities create environments that support active lifestyles and exercise towards improving physical health²². In addition to boosting physical health, green spaces in cities are also associated with better mental health outcomes by providing opportunities for ecotherapy/green therapy²³. Green spaces in cities support mental health by lowering stress, boosting mood, and enhancing cognitive function²⁴.

In addition, it has been observed that parks, greenways, and community gardens also provide accessible green spaces for leisure activities and cultural events therefore promoting social cohesion and community engagement²⁵. Urban green spaces provide accessible areas for social interaction, group recreation, and community engagement,

¹⁷ The Importance of Green Spaces in Urban Settings., Available at <https://www.parksandpeople.org/blog/importance-of-green-spaces-in-urban-settings> (Accessed on 22/07/2026)

¹⁸ Ibid

¹⁹ Ibid

²⁰ World Health Organization., 'Urban Green Spaces and Health' Available at <https://www.who.int/europe/publications/i/item/WHO-EURO-2016-3352-43111-60341> (Accessed on 22/07/2026)

²¹ Ibid

²² The Importance of Green Spaces in Urban Settings., Op Cit

²³ Welch. A., 'What Is Ecotherapy? A Detailed Scientific Guide on the Healing Power of Nature' Available at <https://www.everydayhealth.com/integrative-health/ecotherapy/guide/> (Accessed on 22/07/2026)

²⁴ What Is Urban Green Space? (And Why It Matters)., Op Cit

²⁵ Usoh. A., 'Nurturing Nature: The Role of Urban Green Spaces in Preserving Biodiversity' Available at <https://medium.com/@fascinakon/nurturing-nature-the-role-of-urban-green-spaces-in-preserving-biodiversity-0d16f94c16b6> (Accessed on 22/07/2026)

fostering a sense of belonging while helping to reduce loneliness and isolation²⁶. Green spaces in cities therefore contribute to safer, healthier and more connected communities²⁷.

In addition to supporting human health and well-being, green spaces in cities also provide several environmental benefits. For instance, it has been observed that green spaces in cities help mitigate heat islands by providing shade and cooling surrounding air, while also improving urban air quality through the filtration and absorption of pollutants²⁸. Urban green spaces have been identified as valuable resources with numerous environmental benefits since they reduce urban heat island effects, improve air quality and humidity, conserve soil and water, minimize noise pollution, cut down winds speed, and save soil from contaminations and erosion therefore helping improve the quality of life in urban areas²⁹. In addition, it has been observed that well-designed urban green spaces can protect urban residents from the adverse impacts of extreme weather events such as heatwaves and flooding therefore improving the quality of life in urban areas³⁰. Well-functioning urban green spaces including urban forests also absorb greenhouse gas emissions therefore playing a vital role in combating climate change³¹.

Green spaces in cities also support biodiversity by providing habitats, food and water for a variety of plant and animal species³². Amidst the dense infrastructure and high concentration of people in cities, urban green spaces allow wildlife and vegetation to thrive contributing to biodiversity conservation efforts³³. Urban green spaces serve as vital habitats, wildlife corridors, and ecological buffers in urban environments, supporting a wide range of plant and animal species³⁴. In particular, green spaces in cities provide food, shelter, and breeding sites for birds, insects, small mammals, and pollinators thus enhancing urban biodiversity and ecological resilience³⁵.

Despite their numerous benefits for both people and planet, it has been observed that rapid urbanization, human development and the impacts of climate change are leading

²⁶ What Is Urban Green Space? (And Why It Matters)., Op Cit

²⁷ Ibid

²⁸ Ibid

²⁹ Jabbar. M., Yusoff. M.M., & Shafie. A., 'Assessing the Role of Urban Green Spaces for Human Well-Being: a Systematic Review' Available at <https://link.springer.com/article/10.1007/s10708-021-10474-7> (Accessed on 22/07/2026)

³⁰ World Health Organization., 'Urban Green Spaces: A Brief for Action' Op Cit

³¹ Jabbar. M., Yusoff. M.M., & Shafie. A., 'Assessing the Role of Urban Green Spaces for Human Well-Being: a Systematic Review' Op Cit

³² What Is Urban Green Space? (And Why It Matters)., Op Cit

³³ The Importance of Green Spaces in Urban Settings., Op Cit

³⁴ Usoh. A., 'Nurturing Nature: The Role of Urban Green Spaces in Preserving Biodiversity'

³⁵ Ibid

to altered living environments and lifestyles, where expanding cities, and their residents, have inequitable access to nature, particularly in areas of greater deprivation, with both public and private green spaces becoming less available³⁶. In particular, it has been observed that the rapid rates of urbanization being witnessed all over the world have increased pressure on natural environments and decreased both the quantity and quality of green spaces in cities³⁷. In addition, ineffective urban governance approaches affect the proper management of green spaces in cities³⁸. Consequently, there is need to strengthen environmental rule of law in order to effectively protect green spaces in cities for the benefit of both people and planet.

3.0 Protecting Green Spaces in Cities through Environmental Rule of Law for Health and Biodiversity Conservation

Green spaces such as parks, gardens, forests and wetlands play a key role in fostering human health and well-being while also providing numerous environmental benefits including biodiversity conservation. However, due to challenges such as rapid urbanization and poor urban development, nurturing urban green spaces remains a challenge for most cities all over the world undermining human and environmental health³⁹. Consequently, it is imperative to protect green spaces in cities in order to foster human health and biodiversity conservation.

Environmental rule of law provides a valuable approach towards protecting green spaces in cities. For example, it has been observed that environmental rule of law can serve as the legal foundation for promoting sound environmental conservation, achieving environmental justice, global ecological integrity, and a sustainable future for both present and future generations⁴⁰. Environmental rule of law provides an effective approach towards protecting, conserving and restoring the environment and tackling mounting environmental threats including climate change, biodiversity loss, environmental degradation and pollution⁴¹. In the context of urban green spaces, environmental rule of law can guide sustainable urban development towards nurturing green spaces in cities for people and planet⁴².

³⁶ Houlden. V., Jani. A., & Hong. A., 'Is Biodiversity of Greenspace Important for Human Health and Well-Being? A Bibliometric Analysis and Systematic Literature Review' *Urban Forestry & Urban Greening*, Volume 66, December 2021

³⁷ Urban Green Spaces Brief., Op Cit

³⁸ Ibid

³⁹ Urban Green Spaces Brief., Op Cit

⁴⁰ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law' Op Cit

⁴¹ Ibid

⁴² The Importance of Green Spaces in Urban Settings., Op Cit

In order to implement environmental rule of law, there is need for sound urban planning frameworks that take into account the need for green spaces in cities. It has been observed that through sustainable approaches, it is possible to incorporate green infrastructure into urban planning and development processes through the development of green spaces, parks, gardens among other natural areas in urban centres for human and environmental health⁴³. Effective urban planning laws and regulations can enable relevant authorities in urban areas to develop and maintain urban green spaces including parks, gardens, urban forests, and community gardens for human and ecosystem health⁴⁴.

Upholding environmental rule of law can also lead to the restoration and enhancement of degraded green spaces in cities for human and environmental health. It has been observed that green spaces in most cities are often neglected and poorly maintained impacting human health and biodiversity conservation efforts⁴⁵. Consequently, it has been observed that in addition to developing new green spaces in cities, urban green space restoration practices are key towards supporting human health and biodiversity conservation⁴⁶. These activities include restoring degraded habitats such as urban forests by planting native trees, enhancing wildlife corridors, restoring urban wetlands, and tackling invasive species in urban green spaces⁴⁷. It has been observed that urban green space restoration practices are key towards promoting the health and resilience of urban ecosystems therefore providing benefits for human health and biodiversity conservation⁴⁸.

Further, by upholding the tenets of environmental rule of law, it is possible to ensure that green spaces in cities are well nurtured and protected by promoting environmental justice. For instance, it has been observed that ensuring equitable, fair and inclusive access to green spaces in cities is essential towards addressing social disparities and promoting environmental justice⁴⁹. Pursuant to the concept of environmental justice, every person, regardless of socioeconomic status or location within cities and urban areas, should have access to the health and environmental benefits that green spaces

⁴³ Usoh. A., 'Nurturing Nature: The Role of Urban Green Spaces in Preserving Biodiversity' Op Cit

⁴⁴ World Health Organization., 'Urban Green Spaces: A Brief for Action' Op Cit

⁴⁵ Ajayan. R., 'Reviving Nature in the City: Lessons From Urban Green Space Restoration' Available at <https://news.climate.columbia.edu/2024/10/03/reviving-nature-in-the-city-lessons-from-urban-green-space-restoration/> (Accessed on 22/07/2026)

⁴⁶ Usoh. A., 'Nurturing Nature: The Role of Urban Green Spaces in Preserving Biodiversity' Op Cit

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ The Importance of Green Spaces in Urban Settings., Op Cit

offer⁵⁰. Promoting environmental justice can ensure that green spaces in cities are easily accessible for all populations and distributed equitably and fairly within urban areas for human health and biodiversity conservation⁵¹.

4.0 Conclusion

There is need to nurture and protect green spaces in cities in order to promote human health and biodiversity conservation. Achieving this goal involves upholding the tenets of environmental rule of law including through sustainable urban planning that takes into account the development of urban green spaces, urban green space restoration practices in order to revive and enhance damaged and degraded green spaces in cities, and promoting environmental justice for fairness, inclusivity and equity in distribution, access and use of green spaces in cities⁵². Strengthening environmental rule of law therefore provides a useful approach towards protecting green spaces in cities for health and biodiversity conservation.

⁵⁰ Ibid

⁵¹ World Health Organization., 'Urban Green Spaces: A Brief for Action' Op Cit

⁵² The Importance of Green Spaces in Urban Settings., Op Cit

References

Ajayan. R., 'Reviving Nature in the City: Lessons From Urban Green Space Restoration' Available at <https://news.climate.columbia.edu/2024/10/03/reviving-nature-in-the-city-lessons-from-urban-green-space-restoration/>

Concept: Urban Green Space Ecology., Available at <https://netzerocities.app/resource-3308>

Concept: Urban Green Space Ecology., Available at <https://netzerocities.app/resource-3308>

Environment Law Institute., 'Environmental Rule of Law' Available at <https://www.eli.org/environmental-rule-law>

Houlden. V., Jani. A., & Hong. A., 'Is Biodiversity of Greenspace Important for Human Health and Well-Being? A Bibliometric Analysis and Systematic Literature Review' *Urban Forestry & Urban Greening.*, Volume 66, December 2021

International Union for Conservation of Nature., 'Environmental Rule of Law' Available at <https://iucn.org/our-union/commissions/world-commission-environmental-law/our-work/history/foundational-documents-4>

International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law' Available at https://iucn.org/sites/default/files/2022-10/world_declaration_on_the_environmental_rule_of_law_final_2017-3-17.pdf

Jabbar. M., Yusoff. M.M., & Shafie. A., 'Assessing the Role of Urban Green Spaces for Human Well-Being: a Systematic Review' Available at <https://link.springer.com/article/10.1007/s10708-021-10474-7>

Jabbar. M., Yusoff. M.M., & Shafie. A., 'Assessing the Role of Urban Green Spaces for Human Well-Being: a Systematic Review' Available at <https://iris.who.int/bitstream/handle/10665/344116/9789289052498-eng.pdf>

The Access Initiative., 'The Road to Realizing Environmental Rights In Africa: Moving From Principles to Practice' Available at https://accessinitiative.org/wp-content/uploads/2022/10/22.01_rep_access_initiative_v583-4.pdf

The Importance of Green Spaces in Urban Settings., Available at <https://www.parksandpeople.org/blog/importance-of-green-spaces-in-urban-settings>

United Nations Environment Programme., 'Environmental Rule of Law' Available at <https://www.unep.org/topics/environmental-law-and-governance/promoting-environmental-rule-law/environmental-rule-law>

United Nations Environment Programme., 'Promoting Environmental Rule of Law' Available at <https://www.unep.org/topics/environmental-law-and-governance/promoting-environmental-rule-law>

Urban Green Spaces Brief., Available at <https://amalities.africa/wp-content/uploads/2023/09/UGRL-Urban-Green-Spaces-Brief-Good-Practices.pdf>

Usoh. A., 'Nurturing Nature: The Role of Urban Green Spaces in Preserving Biodiversity' Available at <https://medium.com/@fascinakon/nurturing-nature-the-role-of-urban-green-spaces-in-preserving-biodiversity-0d16f94c16b6>

Welch. A., 'What Is Ecotherapy? A Detailed Scientific Guide on the Healing Power of Nature' Available at <https://www.everydayhealth.com/integrative-health/ecotherapy/guide/>

What Is Urban Green Space? (And Why It Matters)., Available at <https://unity.edu/distance-education-blogs/urban-green-space/>

World Health Organization., 'Urban Green Spaces and Health' Available at <https://www.who.int/europe/publications/i/item/WHO-EURO-2016-3352-43111-60341>