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Tegeler Stadtheide Landscape Park in Berlin, covering an area of 190 hm², has turned a previous airfield into a vibrant green structure. This is a combination of attractive open spaces with a strong connection to nature and settlements for industry, education and research, and administration. The site has now become a new home for thousands of people as well as many animals and plants.

Navigating the Future of Green Urban Resilience: Green Urban Structures as Pillars of Crisis Management and Resilience

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ABSTRACT

In the context of rapidly evolving urban landscapes, the integration of green urban structures emerges as a critical solution for addressing the multifaceted challenges of climate change and mobility. This editorial outlines an approach to sustainable urban development, emphasizing the necessity of incorporating green urban structures and environmentally conscious planning principles across all facets of urban life. By analyzing the impacts of urban challenges and underlying crises, it calls for a collaborative effort among governmental agencies, private enterprises, and local communities to foster innovative solutions that mitigate ecological vulnerabilities while enhancing green urban resilience. Through the lens of green urban structures, it highlights the potential for cities to transform into more sustainable, adaptable, and resilient entities, capable of withstanding the unpredictable risks in the future.

KEYWORDS

Green Urban Structures; Green Urban Resilience; Climate Change; Mobility; Crisis Management; Sustainable Development

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In the face of unprecedented challenges brought forth by climate change and mobility issues, the imperative for sustainable urban development has never been more pressing. As our cities grapple with the consequences of environmental degradation and the demands of a rapidly evolving world, it is crucial to address these issues head-on. In this context, the focus on green urban structures emerges as a beacon of hope, offering a pathway towards crisis management and a resilient future—boosting green urban resilience. Green urban structures encompass a holistic approach to city planning and development, integrating sustainability principles into every facet of urban life. From energy-efficient buildings to urban forest systems, these structures represent a paradigm shifting towards a more resilient and environmentally conscious urban future.

One of the foremost challenges addressed in this edition is the latency in reacting to crisis situations. Climate change and mobility issues demand swift, coordinated responses, and green urban structures serve as the bedrock for such reactions. By fostering adaptive infrastructure and green integrated environment, cities can fortify themselves against the unpredictable impacts of climate change, creating a foundation for sustainable development.

It is important to identify “trigger points” of ecological vulnerability in order to respond with appropriate measures. Before that, we should realize that mobility issues play an important role in this context as infrastructure is very slow to change. Mobility, a cornerstone of modern urban life, poses a dual challenge—contributing to environmental degradation and becoming vulnerable to the impacts of climate change.

Furthermore, this edition underscores the need for collaboration between governmental agencies, private enterprises, and local communities. Only through unified efforts can we implement and

scale green urban structures effectively. Initiatives like public-private partnerships, community engagement programs, and research-driven policymaking are essential components of this collaborative approach.

Green urban resilience has a major influence on economic development potential. The construction of energy-efficient buildings and infrastructure, installation of renewable energy systems, development of green spaces, and integration of sustainable transportation networks often require significant upfront investment. These initial costs can be a barrier to adoption, particularly for cash-strapped municipalities or developers. When calculating life cycle costs for periods of more than 20 years, however, these initial investments pay off as they generally correspond to rising energy prices. For example, energy-efficient buildings, reduce energy consumption and lower utility bills over time. Similarly, investments in public transportation and cycling infrastructure can reduce the need for costly road maintenance and decrease healthcare costs associated with air pollution and sedentary lifestyles. Furthermore, investments in renewable energy projects, public transportation systems, and green building construction not only generate employment opportunities, but also attract private sector investment and spur innovation, further contributing to economic development.

Perhaps the most compelling economic aspect of developing green urban resilience is the cost of inaction. Failing to address environmental degradation and climate change can lead to severe economic consequences, including increased healthcare costs, property damage, infrastructure failures, and loss of productivity. Investing in green urban resilience helps mitigate the economic risks associated with climate change and natural disasters. By bolstering infrastructure against extreme weather events, cities can reduce the costs of damage and disruption to businesses, homes, and public services. Moreover, resilient cities are more attractive to investors and insurers, leading to lower borrowing costs and insurance premiums.

In addition, initiatives of green urban resilience can enhance the attractiveness and value of properties within a city. The increases in value associated with green investments are also accelerating a paradigm shift on the financial side. More and more companies are committing to investing in ESG (Environmental, Social, Governance) investments. Neighborhoods with ample green spaces and sustainable amenities tend to be more desirable, attracting residents and businesses alike.

Overall, while the upfront costs of developing green urban resilience may be substantial, the long-term economic benefits—

including cost savings, job creation, increased property values, and risk mitigation—far outweigh the initial investment. By adopting a strategic and integrated approach to urban planning and development, cities can build resilience while simultaneously promoting economic growth and prosperity.

As we navigate the uncharted waters of a rapidly changing climate and evolving mobility landscapes, this edition challenges us to envision a future where crises are met with green urban resilience, where green urban structures stand as bastions of sustainability. The pages within are a call to action, urging all stakeholders to embrace green urban structures as integral tools in our arsenal for crisis management and a harmonious coexistence between urban life and the environment.

China, a nation at the forefront of urbanization and technological advancement, stands a unique position to pioneer innovative solutions to the complex problems posed by climate change and mobility issues. The content of this edition is also dedicated to exploring such a critical intersection, shedding light on the intrinsic link between green urban structures and effective crisis management.

In resilience lies the opportunity for transformation. Let us seize this moment to build cities that not only withstand the challenges of today but also pave the way for a sustainable, resilient future. By exploring the convergence of technological innovation and sustainable urban planning, this edition showcases how smart, green solutions can mitigate the ecological footprint of urban life while enhancing the resilience of our cities.

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驶向绿色城市韧性的未来： 绿色城市结构作为危机管理与韧性的支撑

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摘要

在城市景观快速变化的背景之下，绿色城市结构的整合正成为应对气候变化和流动性问题带来的多重挑战的关键解决方案。本文提出了一种可持续城市发展的思路，强调在城市生活的各个方面融入绿色城市结构和更具环保意识的规划原则的必要性。通过分析城市挑战和潜在危机的影响，本文呼吁政府机构、私营企业和地方社区之间的通力协作，以促进能够减轻生态脆弱性、增强绿色城市韧性的创新解决方案的提出。在绿色城市结构的视角下，本文着重论述了城市向更具可持续性、适应性和韧性，能够抵御未来不可预测风险的空间转型潜力。

关键词

绿色城市结构；绿色城市韧性；气候变化；流动性；危机管理；可持续发展

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面对气候变化和流动性问题带来的前所未有的挑战，可持续城市发展的紧迫性从未如此迫切。城市需要应对环境退化的后果，以及当前世界快速变化的需求，迫使我们必须直面这些问题。在此背景下，对绿色城市结构的关注为我们带来了希望的曙光，提供了一条通往危机管理和韧性未来的道路——发展绿色城市韧性。运用综合城市规划和发展途径，绿色城市结构将可持续性原则融入城市生活的方方面面。从节能建筑到城市森林系统，这些结构代表着向更具韧性和环境意识的城市未来的范式转变。

本期《景观设计学》所讨论的一大问题是应对危机时的迟缓响应。气候变化和流动性问题要求我们做出迅速且协调的响应，而绿色城市结构则可为此提供支撑。通过发展建设适应性基础设施和绿色一体化环境，城市可以加强自身应对不可预测的气候变化影响的能力，从而为可持续发展打下基础。

关键的一点是，我们需要识别生态脆弱性的“触发点”，以便采取适当措施。而在此之前，我们应该意识到流动性问题在其中产生的重要作用，因为基础设施的更新非常缓慢。作为现代城市生活的基石，流动性正向我们提出了双重挑战——其既加剧了环境恶化，也让城市在气候变化面前变得愈加脆弱。

此外，本期还旨在强调政府机构、私营企业和地方社区之间协作的必要性。唯有联合起来，我们才能有效地实施和扩大绿色城市结构。公私合作伙伴关系、社区参与计划，以及研究驱动型政策制定等举措都是这种协作模式的重要组成部分。

绿色城市韧性对经济发展潜力具有重大影响。节能建筑和基础设施、可再生能源系统建设，绿地开发，以及可持续交通网络整合通常需要大量的前期投入。这些初始成本可能阻碍这些项目的启动，特别是对

于资金紧张的市政府或开发商而言。然而，当以超出20年的生命周期成本计算，这些初始投资通常会因能源价格上涨而得以回报。例如，节能建筑减少了能源消耗，公共事业费用也会随着时间推移而降低。同样，对公共交通和骑行基础设施的投资可以减少对昂贵道路维护的需求，并降低与空气污染和久坐生活方式相关的医疗成本。此外，对可再生能源项目、公共交通系统和绿色建筑进行建设投资不仅会带来新的就业机会，还会吸引到私营投资，并激发创新，这将进一步促进经济发展。

或许，发展绿色城市韧性最引人注目的经济因素是不采取行动的成本。如果我们对环境恶化和气候变化坐以待毙，将可能导致严重的经济后果，包括医疗成本增加、财产损失、基础设施溃败、生产力流失等。投资于绿色城市韧性有助于降低与气候变化和自然灾害相关的经济风险。通过提升基础设施，城市可以减少极端天气事件对商业、住宅和公共服务等方面的冲击和损害。此外，韧性城市对投资者和保险公司更有吸引力，借贷成本和保险费用也会随之降低。

此外，绿色城市韧性的举措可以提升城市内部资产的吸引力和价值。与绿色投资相关的价值增长也在加速融资层面的范式转变。例如，越来越多的公司开始投资于环境、社会、治理领域；无论是对居民还是对企业来说，拥有充足绿地和可持续设施的社区往往更具吸引力。

总的来说，尽管发展绿色城市韧性可能前期成本巨大，但其长期经济效益——包括成本节约、创造就业机会、提高资产价值和减轻风险——远远大于初始投入。通过采用战略性和综合性城市规划和发展模式，城市可以在促进经济增长繁荣的同时增强韧性。

在迅速变化的气候与不断演变的流动性格局的未知性面前，我们需要一个这样的未来：当绿色城市结构成为保障可持续性的堡垒，危机能够通过绿色城市韧性得到应对。这期《景观设计学》呼吁我们采取相关行动，敦促所有利益相关者将绿色城市结构作为危机管理措施及促进城市生活与环境和谐共存的不可或缺的一环。

中国作为城市化和技术进步的前沿国家，在引领创新性地解决气候变化和流动性相关的复杂问题中扮演着独特角色。本期内容也聚焦这一关键点，旨在揭示绿色城市结构与有效危机管理之间的内在联系。

提升韧性，唯有转变。让我们抓住这一机遇，建设不仅能够承受当前挑战，还具有更强可持续性和韧性未来的城市。通过探索技术创新与可持续城市规划的融合，本期内容展示了如何通过智能绿色解决方案降低城市生活的生态足迹，同时增强我们城市的韧性。

文前图片说明

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德国柏林市泰格勒－斯塔德泰德城市郊野景观公园占地 190hm²，其成功地将曾经的机场用地转变为一处充满活力的绿色结构。这里既有与自然紧密相连、极具吸引力的开放空间，也集工业、教育研究、行政管理功能于一体。如今，这里已成为数千城市居民及众多动植物的新家园。