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# Urbanization and the Nation: Navigating Environmental Ethics and Legal Frameworks in a Rapidly Changing World

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## ABSTRACT

This paper examines the intricate interplay between urbanization, national development, environmental ethics, and legal systems. As nations worldwide undergo rapid urban expansion, the tension between economic growth, social progress, and ecological sustainability becomes increasingly pronounced. The study explores how ethical principles, such as inter-generational equity and ecological justice, can inform legal frameworks to mitigate the environmental costs of urbanization. Through a comparative analysis of case studies from developed and developing nations, it identifies gaps in current legal approaches and proposes actionable strategies to align urban development with sustainable environmental stewardship. The findings emphasize the need for nations to adopt holistic, ethics-driven legal reforms that balance urbanization's benefits with the protection of natural ecosystems for future generations.

**Keywords:** Urbanization; National Development; Environmental Ethics; Legal Frameworks; Sustainable Stewardship; Ecological Justice

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## 1. Introduction

Urbanization, defined as the shift from rural to urban living and the corresponding growth of cities, stands as one of the most transformative global phenomena of the 21st century. According to the United Nations, over 55% of the world's population currently resides in urban areas, a figure projected to rise to 68% by 2050 (UN Department of Economic and Social Affairs, 2018). This rapid transition is particularly pronounced in developing nations, where urban centers are expanding at unprecedented rates to accommodate growing populations and economic aspirations. While urbanization has historically been linked to advancements in infrastructure, education, and economic opportunity, its environmental costs—including deforestation, pollution, and biodiversity loss—pose significant challenges to global sustainability.

At the heart of these challenges lies a complex interplay between national development agendas, urbanization processes, and environmental protection. Nations often prioritize urban growth as a driver of economic development, viewing cities as hubs of innovation, productivity, and wealth creation. However, this focus can come at the expense of natural ecosystems, as urban expansion encroaches on forests, wetlands, and agricultural land, disrupts hydrological cycles, and increases greenhouse gas emissions. The resulting environmental degradation not only threatens biodiversity but also undermines the well-being of urban and rural communities alike, exacerbating issues such as air and water pollution, climate change, and resource scarcity.

Against this backdrop, environmental ethics and law emerge as critical tools for navigating the tensions between urbanization and sustainability. Environmental ethics provides a framework for evaluating the moral dimensions of human interactions with the natural world, challenging societies to consider their obligations to both present and future generations, as well as to non-human species. Legal frameworks, meanwhile, translate

these ethical principles into actionable rules and regulations, governing land use, pollution, resource management, and other aspects of urban development. Together, ethics and law can guide nations toward more sustainable urbanization pathways that balance economic, social, and ecological priorities.

This paper seeks to contribute to the ongoing discourse in *Environmental Ethics & Law* by examining how nations can align their urbanization strategies with ethical principles and robust legal frameworks. Specifically, it addresses three key research questions: (1) What ethical tensions arise between urbanization and environmental sustainability at the national level? (2) How do existing legal frameworks in different nations address these tensions, and what gaps exist? (3) What strategies can nations adopt to strengthen the integration of environmental ethics into urbanization law and policy?

To answer these questions, the paper proceeds as follows. Section 2 explores the ethical dimensions of urbanization, focusing on concepts such as intergenerational equity, ecological justice, and the intrinsic value of nature. Section 3 examines the role of national legal systems in regulating urbanization, with a focus on land use planning, environmental impact assessment, and pollution control. Section 4 presents case studies from three nations—Brazil, Germany, and India—highlighting divergent approaches to balancing urbanization and environmental protection. Section 5 identifies key gaps in current legal and ethical frameworks and proposes strategies for reform. Finally, Section 6 concludes with a call for a more holistic, ethics-driven approach to urbanization that prioritizes long-term ecological sustainability.

## 2. Ethical Dimensions of Urbanization

Urbanization raises a host of ethical questions that challenge traditional notions of progress, development, and human-nature relationships. At its core, the ethical debate revolves around how societies should balance the needs and aspirations

of urban populations with the protection of natural ecosystems and the rights of future generations. This section explores three key ethical frameworks that are particularly relevant to understanding these tensions: intergenerational equity, ecological justice, and the intrinsic value of nature.

### **2.1 Intergenerational Equity**

Intergenerational equity, a central principle of environmental ethics, posits that present generations have a moral obligation to ensure that future generations inherit a planet capable of supporting a decent quality of life (Page, 1997). This principle stands in direct tension with unsustainable urbanization practices that deplete natural resources, degrade ecosystems, and contribute to climate change—all of which threaten the well-being of future generations. For example, the conversion of forested land to urban use not only reduces carbon sequestration capacity but also diminishes biodiversity, limiting the resources and ecosystem services available to future populations.

The ethical imperative of intergenerational equity demands that nations consider the long-term consequences of urban development decisions. This means rejecting short-term gains from unregulated urban expansion in favor of strategies that preserve natural capital for future use. For instance, investing in compact, mixed-use urban design can reduce the need for sprawling development, minimizing habitat loss and resource consumption. Similarly, prioritizing renewable energy sources in urban infrastructure can mitigate climate change, ensuring that future generations are not burdened with the costs of extreme weather events and rising sea levels.

### **2.2 Ecological Justice**

Ecological justice, or environmental justice, focuses on the fair distribution of environmental benefits and burdens across different communities and populations (Schlosberg, 2007). In the context of urbanization, this principle highlights how environmental harms often disproportionately

affect marginalized groups, including low-income communities, racial minorities, and rural populations. For example, industrial zones and waste disposal facilities are frequently located in or near low-income urban neighborhoods, exposing residents to higher levels of pollution and health risks. Similarly, rural communities may bear the brunt of urban water and resource extraction, as cities divert rivers or deplete aquifers to meet their growing demands.

Ecological justice demands that nations address these disparities by ensuring that the costs of urbanization are shared equitably and that all communities have access to clean air, water, and green spaces. This may require implementing policies such as zoning regulations to prevent environmental racism, investing in green infrastructure in underserved neighborhoods, and compensating rural communities for resource extraction. By centering equity in urbanization strategies, nations can ensure that the benefits of urban growth are not achieved at the expense of vulnerable populations.

### **2.3 Intrinsic Value of Nature**

A third ethical perspective relevant to urbanization is the recognition of the intrinsic value of nature—that is, the idea that natural ecosystems and species have value independent of their utility to humans (Rolston, 1988). This stands in contrast to anthropocentric views, which prioritize human needs and interests above all else. From an intrinsic value perspective, urbanization that destroys forests, wetlands, or other ecosystems is ethically problematic not only because it harms human well-being but also because it violates the inherent right of nature to exist and thrive.

This perspective has gained traction in recent years, with some nations enshrining the rights of nature in their legal systems. For example, Ecuador's 2008 constitution recognizes nature as a legal subject with the right to "exist, persist, maintain and regenerate its vital cycles" (Constitution of Ecuador, 2008, Article 71). Such frameworks challenge nations to consider the moral standing of non-human species

and ecosystems when making urbanization decisions, potentially limiting development in ecologically sensitive areas even if it would bring economic benefits.

Taken together, these ethical frameworks provide a foundation for evaluating the morality of urbanization practices. They challenge nations to move beyond a narrow focus on economic growth and instead adopt a more holistic approach that considers the rights of future generations, the equity of environmental burdens, and the intrinsic value of nature.

### **3. Legal Frameworks for Regulating Urbanization**

While ethical principles provide a normative foundation for sustainable urbanization, legal frameworks are essential for translating these principles into actionable policies and practices. National legal systems play a critical role in shaping urbanization processes, governing land use, environmental protection, and resource management. This section examines three key areas of law that are particularly relevant to regulating urbanization: land use planning, environmental impact assessment (EIA), and pollution control.

#### **3.1 Land Use Planning**

Land use planning is a primary tool for managing urban expansion and ensuring that development occurs in a way that minimizes environmental harm. National and local governments use zoning laws, master plans, and growth boundaries to designate areas for residential, commercial, industrial, and recreational use, as well as to protect ecologically sensitive lands. Effective land use planning can prevent urban sprawl, preserve green spaces, and promote compact, sustainable urban forms.

However, the effectiveness of land use laws varies widely across nations, often reflecting differing priorities between economic development and environmental protection. In some countries, land

use planning is highly centralized, with national governments setting strict standards for urban growth. For example, Germany's Federal Building Code (*Baugesetzbuch*) requires local governments to develop comprehensive land use plans (*Flächennutzungspläne*) that integrate environmental protection, including the preservation of forests, wetlands, and biodiversity (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2017). In contrast, nations such as Brazil have historically had more decentralized land use systems, with local governments often prioritizing development over conservation, leading to rapid deforestation in the Amazon and other ecologically critical regions (Almeida & Correa, 2016).

#### **3.2 Environmental Impact Assessment (EIA)**

Environmental Impact Assessment (EIA) is a legal process that evaluates the potential environmental effects of proposed development projects, including urban infrastructure, housing, and industrial facilities. EIAs typically require developers to identify potential harms, propose mitigation measures, and engage the public in decision-making. By integrating environmental considerations into the early stages of project planning, EIAs can help prevent or reduce the ecological costs of urbanization.

Most nations have implemented EIA laws, but their scope, enforcement, and effectiveness vary. In the European Union, the EIA Directive (2011/92/EU) sets strict standards for assessing projects that are likely to have significant environmental impacts, with strong public participation requirements and legal consequences for non-compliance (European Commission, 2020). In contrast, EIA systems in many developing nations, such as India, face challenges related to weak enforcement, corruption, and limited public access to information. For example, a 2019 study found that over 60% of infrastructure projects in India's urban areas failed to comply with EIA requirements, leading to widespread environmental degradation (Center for Science and Environment,

2019).

### **3.3 Pollution Control**

Urbanization is a major source of pollution, including air pollution from transportation and industry, water pollution from sewage and runoff, and noise pollution from construction and urban activity. National laws regulating pollution are therefore critical for protecting human health and ecosystems in urban areas. These laws typically set emissions standards, require the use of pollution control technologies, and establish penalties for non-compliance.

Again, there is significant variation in the stringency and enforcement of pollution control laws globally. Developed nations such as Germany have robust regulatory frameworks, including the Federal Immission Control Act (*Bundes-Immissionsschutzgesetz*), which sets strict limits on air and water pollution from industrial and urban sources (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2020). In contrast, many developing nations struggle to enforce pollution standards due to limited resources, political pressure from industry, and rapid urban growth. For example, in India, air pollution in cities such as Delhi frequently exceeds international safety standards, with weak enforcement of emissions regulations for vehicles and industrial facilities contributing to the crisis (Greenpeace India, 2018).

In summary, legal frameworks play a crucial role in shaping the environmental impacts of urbanization. However, their effectiveness depends on factors such as political will, enforcement capacity, and alignment with ethical principles. The following section examines case studies from three nations to illustrate these dynamics in practice.

## **4. Case Studies: Divergent Approaches to Urbanization and Environmental Protection**

To better understand how nations navigate the

tensions between urbanization, environmental ethics, and law, this section presents case studies from three countries: Brazil, Germany, and India. These nations represent different stages of development, varying legal traditions, and contrasting approaches to balancing urban growth with environmental protection.

### **4.1 Brazil: Urban Sprawl and Amazon Deforestation**

Brazil has experienced rapid urbanization over the past few decades, with urban populations increasing from 60% in 1980 to over 87% in 2020 (World Bank, 2021). Much of this growth has been concentrated in cities such as São Paulo and Rio de Janeiro, which have expanded outward into surrounding rural areas, leading to sprawl, deforestation, and the loss of agricultural land. Concurrently, urbanization in the Amazon region, driven by mining, logging, and agriculture, has contributed to significant deforestation, with over 17% of the Amazon rainforest lost since 1970 (Instituto Nacional de Pesquisas Espaciais, 2020).

Brazil's legal framework for regulating urbanization and environmental protection is complex, with a mix of national and state-level laws. The 1988 Constitution establishes a right to a healthy environment and requires the government to protect natural resources, including the Amazon (Constitution of Brazil, 1988, Articles 225 and 226). The National Environmental Policy Act (Law No. 6938/81) provides a framework for environmental protection, including EIA requirements for major development projects. However, enforcement of these laws is often weak, particularly in the Amazon, where political and economic interests in development frequently override environmental concerns.

Ethically, Brazil's urbanization practices raise concerns about intergenerational equity and the intrinsic value of nature. The loss of the Amazon rainforest not only threatens biodiversity but also reduces the planet's capacity to sequester carbon, exacerbating climate change for future generations.



Additionally, indigenous communities in the Amazon, who have lived sustainably in the region for centuries, are disproportionately affected by urbanization and deforestation, raising issues of ecological justice.

In recent years, there have been efforts to strengthen environmental protections in Brazil. For example, the creation of protected areas in the Amazon has reduced deforestation rates in some regions, and the 2012 Forest Code (Law No. 12651/12) establishes stricter requirements for reforestation and environmental restoration. However, these efforts have been undermined by political shifts, including the 2019 election of President Jair Bolsonaro, who has weakened environmental regulations and promoted development in the Amazon. This case highlights the challenges of implementing ethics-driven environmental laws in the face of competing economic and political interests.

#### **4.2 Germany: Sustainable Urban Development and Green Infrastructure**

Germany stands as a model of sustainable urbanization, with a long history of integrating environmental protection into urban planning and development. Despite being one of the most urbanized countries in Europe (77% urban population), Germany has managed to maintain high levels of biodiversity, reduce greenhouse gas emissions, and promote compact, livable cities (World Bank, 2021). This success is due in large part to strong legal frameworks and a cultural commitment to environmental ethics.

Germany's legal approach to urbanization is guided by the principle of "sustainable development," which is enshrined in the Federal Sustainable Development Strategy (2002) and integrated into various laws, including the Federal Building Code and the Federal Immission Control Act. Land use planning emphasizes compact urban growth, the preservation of green spaces, and the development of green infrastructure, such as urban forests, parks, and sustainable transportation systems. For example, the city of Freiburg has become a global leader in sustainable urban development, with policies

promoting renewable energy, car-free neighborhoods, and the preservation of surrounding forests and farmland (Freiburg Municipal Government, 2019).

Ethically, Germany's approach reflects a strong commitment to intergenerational equity and ecological justice. The country's Energiewende (energy transition) policy, which aims to phase out fossil fuels and increase renewable energy use, is driven in part by a recognition of the moral obligation to address climate change for future generations. Additionally, Germany's waste management and recycling laws ensure that urban communities share the burden of environmental protection equitably, with strict regulations on waste disposal and incentives for recycling.

However, Germany's urbanization model is not without challenges. The country faces issues related to housing shortages in major cities, which can lead to gentrification and displacement of low-income communities, raising concerns about ecological justice. Additionally, while Germany has made progress in reducing greenhouse gas emissions, urban transportation remains a significant source of pollution, highlighting the need for continued investment in public transit and electric vehicles.

#### **4.3 India: Rapid Urbanization and Environmental Degradation**

India is experiencing one of the fastest urbanization rates in the world, with urban populations projected to increase from 34% in 2018 to 40% by 2030 (UN Department of Economic and Social Affairs, 2018). This rapid growth is driven by rural-urban migration in search of economic opportunities, leading to the expansion of cities such as Mumbai, Delhi, and Bangalore. However, this growth has been accompanied by severe environmental degradation, including air and water pollution, waste accumulation, and the loss of green spaces.

India's legal framework for environmental protection includes several key laws, such as the Environment (Protection) Act, 1986, which establishes a regulatory framework for pollution

control and environmental impact assessment, and the Forest Conservation Act, 1980, which regulates the conversion of forest land for non-forest uses. Additionally, the Smart Cities Mission, launched in 2015, aims to promote sustainable urban development through the use of technology and green infrastructure. However, implementation of these laws is often hampered by weak enforcement, corruption, and a lack of coordination between national, state, and local governments.

Ethically, India's urbanization raises significant concerns about ecological justice and intergenerational equity. Low-income communities in urban slums are disproportionately affected by pollution and lack access to clean water, sanitation, and green spaces, while rural communities face resource depletion as cities extract water and other resources. Additionally, the rapid pace of urbanization is contributing to climate change, with India projected to be one of the most vulnerable countries to its impacts, threatening the well-being of future generations.

In recent years, there have been efforts to address these challenges. For example, the National Clean Air Programme, launched in 2019, aims to reduce air pollution in 102 cities by 20-30% by 2024. Additionally, some cities, such as Bangalore, have implemented policies to protect urban lakes and green spaces. However, these efforts are insufficient to address the scale of the problem, highlighting the need for stronger legal frameworks and greater political will to prioritize environmental protection in urban development.

## **5. Gaps and Strategies for Reform**

The case studies presented in Section 4 highlight both the potential and the challenges of aligning urbanization with environmental ethics and law. While some nations have made progress in integrating sustainability into urban development, significant gaps remain in legal frameworks, enforcement, and ethical considerations. This section identifies key gaps and proposes strategies for reform.

### **5.1 Key Gaps in Current Frameworks**

#### **5.1.1 Misalignment between Ethics and Law**

In many nations, legal frameworks for urbanization do not adequately reflect ethical principles such as intergenerational equity and ecological justice. For example, EIA processes often focus on short-term economic benefits rather than long-term environmental impacts, and land use planning rarely considers the rights of future generations or non-human species.

#### **5.1.2 Weak Enforcement**

Even when strong environmental laws exist, enforcement is often weak, particularly in developing nations with limited resources and political will. This is evident in Brazil's struggle to enforce Amazon deforestation laws and India's failure to comply with EIA requirements.

#### **5.1.3 Lack of Public Participation**

Meaningful public participation is essential for ensuring that urbanization policies reflect community values and address equity concerns. However, in many nations, public input in land use planning and environmental decision-making is limited, particularly for marginalized communities.

#### **5.1.4 Fragmented Governance**

Urbanization and environmental protection involve multiple levels of government and stakeholders, but coordination between them is often lacking. This fragmentation can lead to conflicting policies and ineffective implementation, as seen in India's disjointed approach to urban environmental management.

#### **5.1.5 Insufficient Focus on Green Infrastructure**

Many urbanization strategies prioritize traditional infrastructure (e.g., roads, buildings) over green infrastructure (e.g., parks, wetlands, sustainable transportation), missing opportunities to reduce environmental impacts and promote ecological justice.

## **5.2 Strategies for Reform**

To address these gaps, nations can adopt the following strategies to strengthen the integration of environmental ethics and law into urbanization processes.

### **5.2.1 Embed Ethical Principles in Legal Frameworks**

Nations should explicitly incorporate ethical principles such as intergenerational equity, ecological justice, and the intrinsic value of nature into their legal systems. This could include amending constitutions to recognize the right to a healthy environment for future generations, as Ecuador has done, or requiring EIA processes to evaluate impacts on non-human species and ecosystems.

### **5.2.2 Strengthen Enforcement Mechanisms**

To ensure that environmental laws are effectively implemented, nations should invest in enforcement capacity, including training for regulators, increased monitoring of urban development projects, and stricter penalties for non-compliance. Additionally, involving civil society organizations and local communities in monitoring and enforcement can help hold governments and developers accountable.

### **5.2.3 Promote Public Participation and Indigenous Rights**

Nations should enhance public participation in urban planning and environmental decision-making, particularly for marginalized communities and indigenous groups. This could include requiring public hearings for major development projects, providing access to environmental information, and recognizing indigenous land rights, which are often critical for protecting ecologically sensitive areas.

### **5.2.4 Integrate Governance Across Levels and Sectors**

Effective urban environmental management requires coordination between national, state, and local governments, as well as between sectors such as housing, transportation, and environment. Nations can establish interagency task forces or regional planning

bodies to facilitate this coordination and ensure that urbanization policies are aligned with national sustainability goals.

### **5.2.5 Prioritize Green Infrastructure and Compact Urban Design**

Nations should revise land use planning laws to promote compact, mixed-use urban development, which reduces sprawl and preserves green spaces. Additionally, investing in green infrastructure—such as urban forests, rain gardens, and public transit—can help mitigate the environmental impacts of urbanization while providing equitable access to ecosystem services for all communities.

### **5.2.6 Incentivize Sustainable Practices**

Governments can use economic incentives, such as tax breaks, grants, and subsidies, to encourage developers and communities to adopt sustainable urbanization practices. For example, providing incentives for green building certification or renewable energy use in urban projects can accelerate the transition to sustainable cities.

### **5.2.7 Strengthen International Cooperation**

Urbanization and environmental challenges are global in nature, requiring international cooperation to address issues such as climate change and biodiversity loss. Nations can collaborate on sharing best practices, developing common standards for sustainable urbanization, and providing financial and technical support to developing nations to strengthen their environmental legal frameworks.

## **6. Conclusion**

Urbanization represents both a significant opportunity for economic and social development and a major threat to environmental sustainability. As nations continue to urbanize, the need to align urban growth with ethical principles and robust legal frameworks becomes increasingly urgent. This paper has explored the ethical tensions inherent in urbanization, examined the role of national legal systems in regulating urban development, and



highlighted divergent approaches through case studies from Brazil, Germany, and India.

The findings emphasize that sustainable urbanization requires a shift away from narrow, anthropocentric approaches to development and toward a more holistic, ethics-driven model that considers the rights of future generations, the equity of environmental burdens, and the intrinsic value of nature. Legal frameworks play a critical role in this shift, but they must be strengthened to better reflect ethical principles, enforced more effectively, and integrated across levels of governance.

By adopting the strategies proposed in this paper—including embedding ethical principles in law, strengthening enforcement, promoting public participation, and prioritizing green infrastructure—nations can navigate the tensions between urbanization and environmental protection. In doing so, they can create cities that are not only engines of economic growth but also hubs of ecological sustainability, ensuring a healthy planet for current and future generations.

The mission of *Environmental Ethics & Law*—to promote critical discussions on the ethical and legal dimensions of environmental issues—remains more relevant than ever as the world grapples with rapid urbanization. It is our hope that this paper contributes to this mission by providing insights and strategies for aligning urbanization with the principles of sustainable environmental stewardship.

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