

## **Pathways for Green Governance and Legalization in Mega-Cities**

Yana Di

School of Marxism, Chongqing University of Science and Technology, Chongqing  
401331, China.

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**Abstract:** The realization of China's style of modernization relies on the high-quality development of cities, which represents the modernization of megacity governance, with the fundamental goal of enhancing the well-being of the population. The ecological governance of megacities encompasses the entire process from urban planning to design to renewal in the temporal dimension, and in the spatial dimension, it covers the entire economic, social, and ecological landscape. Summarizing the environmental governance experiences in domestic megacities, deepening the fundamental paradigm of ecological governance focusing on energy conservation, emissions reduction, mutual assistance, sharing, and the empowerment of the digital economy, and using the green principles established by the Civil Code as guidance to prevent risks and address challenges, ultimately explores a universally applicable new path for green governance in megacities.

**Keywords:** Megacities, Green Governance, Ecological Rule of Law

**Introduction:** China's style of modernization is a modernization that promotes harmonious coexistence between humans and nature, and it represents the goals of the fourteenth five-year plan for national economic and social development. Promoting green development and fostering harmonious coexistence between humans and nature are not only specific strategies for building a beautiful China but also a moral imperative. In this transformation, megacities, as the most significant empowerment platforms, play a pivotal role. The "magnitude" of megacities lies not only in population size and economic scale but also in their resilience and inclusiveness. Therefore, the green governance of megacities, under an open framework, promotes human ecological transformation through urban transformation with a global perspective.

### **1.Strengthening the Green Governance Philosophy for Megacities**

Cities are the product of human civilization and, with economic and social development, there is a gradual trend of population concentration. According to the criteria of having a permanent population of over 10 million, the data from the seventh national population census shows that China has seven megacities: Shanghai, Beijing, Shenzhen, Chongqing, Guangzhou, Chengdu, and Tianjin. The characteristics of megacities include two key aspects: a large population of "over 10 million" and a strong cohesion of "permanent" residents and the city. Therefore, megacities are domains of deep interaction between humans and nature. In such domains of strong human-nature cohesion, a philosophy of green governance is needed to guide the construction of an ecological model suitable for human life and development.[1]

#### **1.1 Environmental Ethics Calling for Megacities to Return to Green Governance Principles**

Human evolution has been a process from subsisting on nature to seeking both material and spiritual pursuits. The development of productivity and industrialization led to an illusion of nature being an object separate from humans. When people impose their will on the external world to an excessive degree, the repercussions of nature are inevitable. Nature is not an object in the ecosystem; it is not an entity. Humans cannot oppose nature; they are elements within the ecosystem. Thus, from an environmental ethics perspective, humans and nature should be regarded as one, necessitating shared governance and co-construction.[2]

The ultimate goal of harmonious coexistence between humans and nature is to enable people to live decent and happy lives. And these "people" who live happy lives are not just contemporary individuals but also future generations. Focusing only on "contemporary people" implies considering the period from birth to death and reverts to a natural attribute category. Paying attention to "future generations" transcends individual life spans and focuses on social attributes, extending the concept of "people" to encompass "ecological membership." Based on this, to achieve the goal of human happiness, governance approaches that align with the principles of environmental development laws need to be established in the most common aspect of urban life, allowing for green governance, in line with environmental development principles.[3]

## **1.2 People's Well-being Expects Megacities to Enhance Green Governance Capabilities**

People-oriented development is a distinctive feature of Marxist theory, and achieving modernization of green governance requires adhering to a people-centered development ideology. This demands that the people's perspective be the fundamental standpoint and that the fundamental mission be to work for the people's well-being. A healthy ecological environment is the most universal aspect of people's well-being, shifting the focus from the single pursuit of economic value to an emphasis on ecological value. Through industrial upgrading, ecological value can be transformed into economic value, practicing the concept that green mountains and clear waters are invaluable resources. In this regard, the perspective of a "green, rational economic person" oscillates between the economic and ecological realms.

In this oscillation, it becomes clear that enhancing green governance capabilities requires effective "calculations." This means coordinating long-term, holistic, and systematic interests. It also involves accounting for the gains and losses of future generations while making decisions. By limiting profit-seeking behavior according to environmental carrying capacity, adopting energy-efficient, emission-reducing, and environmentally friendly production and lifestyle patterns as much as possible. In this process, it is also confirmed that enhancing green governance capabilities necessitates going beyond "self." This entails changing the old, extensive methods of operation and revenue generation, abandoning the obsession with measuring living standards solely through material wealth, valuing spiritual enjoyment, and making reverence for nature and promoting harmonious coexistence with nature a new standard for life.

In the face of significant global challenges and risks posed by climate and the

environment, no country, nation, or individual can tackle these issues alone and in isolation. Building a community of shared human destiny is the only way to overcome challenges and achieve win-win outcomes. The core competition for future megacities lies in their green governance capabilities, which should encompass coordinated urban spatial and structural planning, driving the transition of the green industrial structure and ultimately achieving high-quality economic development for the well-being of the people.

## **2.Exploring High-Quality and Distinctive Green Governance Solutions for Megacities**

Cities are complex spaces that encompass both natural and cultural elements in human life. Governing megacities with high quality and distinctive features should meet the dual requirements of nature and culture.[4] Achieving a green transformation of production and lifestyle in line with the main goals of the "14th Five-Year Plan" and exploring location-specific green governance solutions are essential aspects of social governance in current megacities. This approach is also a significant driver for advancing modern industrial and market transformations.

### **2.1 Showcasing the Achievements of Green Governance in Megacities**

The rise and rejuvenation of a great nation require cities to shoulder a heavy responsibility, and achieving a Chinese-style modernization necessitates megacities to lead and establish ecological civilization models for high quality, new norms, and sustainable future urban development. To this end, I examined four of China's megacities, namely Shanghai, Guangzhou, Chengdu, and Chongqing. Although they focus on different aspects of green governance, all of them revolve around local natural and cultural characteristics. While they may have different approaches, each is a showcase of vibrant green initiatives.[5]

Shanghai, for instance, places a strong emphasis on creating a "garden city" and explores new avenues in green governance. For example, in the Zhujin Town of Jinshan District, the "Huakai Hai Shang" ecological park was created by transforming and restoring disadvantaged low-lying areas, combining economic, ecological, and aesthetic values. This not only aligns with green principles but also contributes to rural revitalization, resulting in multiple benefits. In terms of industrial transformation, Shanghai promotes the photovoltaic industry by utilizing existing factories, industrial parks, and office buildings' rooftops for distributed photovoltaic installations. This not only meets the city's electricity demands but also generates economic benefits by selling surplus electricity to the grid.[6]

Guangzhou, known as the "Southern Gateway" for China's open-door policy, focuses on cooperative development and resource allocation. It connects the Pearl River Delta, linking world-class airport clusters, port clusters, and high-speed rail clusters. This promotes mutual connectivity between the east and west banks of the Pearl River Delta, while fostering collaboration with Hong Kong and Macau. In this strategically important location, megacities leverage their resource allocation capabilities to jointly expand external development, pushing integrated development to new heights.

Chengdu capitalizes on transforming its ecological advantages into development

assets, particularly by harnessing folk culture to develop new consumption patterns such as cultural and creative industries, intangible cultural heritage preservation, distinctive accommodations, and eco-tourism, continuously yielding ecological premiums. For instance, through the renovation of forest plots, Chuan-style bonsai, and the ancestral village of Yanjiawan, which has received over 300,000 tourists in 2021, generating comprehensive tourism revenues of 10 million RMB and village collective income exceeding 1 million RMB. Subsequently, various projects have been undertaken, including the "Xishu Bonsai Garden," "Yojian Daoxiang Parent-child Rural," "Colorful Countryside," among others, driving related industries like catering, accommodations, and hotels, capitalizing on the value of ecology.

Chongqing, renowned for its mountainous terrain, leads its urban transportation planning with the concept of "prioritizing public transport" as a cornerstone of green governance. In the field of transportation, the city substantially reduces emissions by adhering to the principle of prioritizing public transport. This involves specific measures, such as the establishment of dedicated bus lanes to prohibit private vehicles during peak hours, determining the rights to use bus lanes during morning and evening peak hours, implementing staggered work hours to ease urban congestion, and raising parking fees in the central city to increase costs for small vehicles.

## **2.2 Constructing the Basic Model of Green Governance for Megacities**

Based on the highlighted ecological governance strategies of these four megacities, a fundamental framework for green governance can be outlined. This framework centers around the "dual carbon" strategy, involving structural optimization of spatial, industrial, transportation, and energy elements, and implementing measures focusing on rural collaboration, urban co-construction, and resource sharing. Dual carbon encompasses an all-encompassing initiative, and the ecological governance of megacities should seamlessly integrate green principles throughout the urban planning, design, and renovation processes.

### **2.2.1 Green Urban Planning and Design for Megacities**

Urban planning falls within the realm of human cognitive activities and should evolve with social development. Under the perspective of ecological civilization, urban planning should consider not only the material functionality of cities but also their human and social aspects. Specifically, it should reflect the laws of social, economic, and ecological development, coordinate the allocation of various resource elements from the natural environment to artificial structures, and establish a unified overall framework for protection, development, utilization, restoration, and governance.

In future megacities, urban planning and design will undoubtedly incorporate "digital" elements. Concepts like the "digital earth," "smart cities," mobile connectivity, and artificial intelligence are the driving forces and directions for urban development in the new era. Additionally, the digital economy plays a crucial role in the development of a green, low-carbon, and circular economy. On one hand, the aggregation and analysis of big data enable market participants to be more sensitive to changes in the economic environment. On the other hand, the digital economy

provides new products and formats for the development and application of green energy. However, the vigorous development of the digital economy also poses environmental challenges due to energy-intensive infrastructures like 5G base stations. It's estimated that by 2025, 5G base stations' total energy consumption will account for approximately 20% of the overall societal energy consumption. Therefore, to address the conflict between economic empowerment and environmental optimization, the incorporation of green and economic development must be considered in the urban planning and design phase.

### **2.2.2 Green Urban Renewal in Megacities**

Urban renewal follows planning and design, taking place in areas where cities are already built. It involves activities aimed at improving space and functionality through enhancing infrastructure, public facilities, optimizing regional function layouts, and enhancing the living environment of the city. Green urban renewal seeks to depart from the previous extensive model of large-scale demolition and construction, aligning with "dual carbon" principles and sustainable development. Therefore, green urban renewal is not merely about the physical transformation of urban structures but also includes a conceptual shift towards the development of urban connotations. In terms of approach, it is not about wholesale demolition and reconstruction but rather a comprehensive adjustment and reconstruction with emissions reduction as the main goal.

In "mega" cities, urban renewal brings rich and complex stories, influenced by the diversity and complexity of the participating stakeholders. Factors like the cost of renewal, distribution of rights among stakeholders, the ability of disadvantaged individuals to bear the costs, and more all play significant roles. The government, as the leader of renewal, must address the various stakeholder demands, all of which have legitimate rights from a legal perspective. How to fulfill governmental responsibilities, safeguard the interests of all parties, and balance the distribution of benefits fairly and equitably is one of the most significant challenges in urban renewal.

In this regard, drawing from mature international experiences, combined with practical explorations in existing megacities, I propose that a distinctive Chinese approach to green governance in megacities could involve adopting a model based on "community governance as the core, combined with a system of checks and balances and protection of vulnerable groups." Firstly, the goal of urban renewal should be directed towards the common public interest and, in the end, benefit every individual. Therefore, citizens should have the right to participate in every renovation and transformation that concerns environmental interests. Secondly, to ensure the fairness and rationality of specific renewal projects, various social organizations could be introduced for supervision and evaluation, such as neighborhood committees, community organizations, and homeowner associations, or various forms of groups in the digital age, including WeChat "homeowner groups" or "community teams." Lastly, and most importantly, special attention should be paid to the protection of vulnerable groups. Green renewal primarily targets relatively underdeveloped urban areas characterized by obsolete buildings, inadequate designs,

and uncoordinated layouts, where most residents belong to vulnerable groups. Urban renewal is a means to achieve the aspirations of every individual for a better life. In this context, the primary beneficiaries of renewal are these vulnerable groups, requiring specific policy incentives and proposals, such as targeted subsidies and extended payment periods.

### **3. Legal Encouragement and Restraint in Green Governance**

The modernization of China is inherently linked with legal modernization. The era calls for the "Civil Code," which serves as a guiding principle for orderly societal construction based on green ideals. Megacities often experience concentrated conflicts between humans and nature, making it a natural choice to reconcile these conflicts through social governance tools to achieve harmonious coexistence between people and nature. Rule of law, as the fundamental mode of modern social governance, plays an essential and irreplaceable role in the process of building eco-friendly cities. Sound laws guide sound governance, and effective governance relies on sound laws. Therefore, the various experiences and models mentioned earlier are inseparable from the rectification provided by the rule of law. To facilitate focused discussion, this section delineates legal issues in green governance.

#### **3.1 Green Principles in Megacity Governance**

Article 9 of the "Civil Code" states, "In carrying out civil activities, civil subjects shall act to save resources and protect the ecological environment." It is commonly referred to as the "green clause" and is considered a guiding green principle for civil life. While environmental protection is not the primary objective of the Civil Code, why establish a green principle for civil activities? Because humans are an integral part of nature, and environmental interests ultimately translate into human well-being. Even though environmental protection is not the ultimate goal, it deserves equal attention and respect as human interests.

The significance of environmental protection in megacities requires no elaboration. The basic paradigm for megacity governance has been established, which is primarily centered on energy efficiency and emissions reduction with the "dual carbon" strategy at its core. This aligns closely with the green principles laid out in the Civil Code, and this approach should continue to be rigorously implemented.

In the Property Rights Code, there are fundamental provisions for ecological governance, such as: "When exercising the right to use and enjoy property, civil subjects shall abide by legal provisions concerning the protection and rational exploitation of resources and the protection of the ecological environment." "The establishment of the right to use construction land shall conform to requirements for resource conservation and environmental protection and comply with legal and administrative regulations regarding land use." Establishing a tone of environmental protection in the Civil Code is a fundamental guideline for green urban governance.

#### **3.2 Green Obligations in Megacity Governance**

Some argue that the Civil Code merely establishes green principles without offering practical applicability and is, therefore, a declarative right. However, this is not the case. Taking urban renewal as an example, megacities each have their own regulations, management methods, implementation details, or guidelines for city

planning, design, and renewal. This implies that during the process of city planning, design, and renewal, the principles of conservation and environmental protection are not merely theoretical but are specific norms and requirements, including choices for green industrial chains, green procurement, green management, etc.

Additionally, in the Contract Code of the Civil Code, obligations are defined by law to bind civil subjects in avoiding resource wastage, environmental pollution, and ecological disruption during contract performance. This encompasses ancillary obligations (packaging methods) and post-contractual obligations (recycling obligations). Hence, both market participants' regulations and monitoring in megacities should be aligned with this provision, serving as a benchmark for guiding and regulating market behavior.

### **3.3 Green Responsibilities in Megacity Governance**

Legal responsibility acts as both a punitive measure and a recourse for violations of legal obligations. The damage caused by violations of green obligations is often difficult to quantify simply and immediately. Green governance in megacities entails eliminating outdated capacities, promoting technological upgrades, and inevitably imposes high-cost pressures on market participants, as high standards and technologies come with a high cost. In essence, all green planning and transformation represent a "baptism" of public welfare against private interests. Baptism involves inevitable pain, but after baptism, comes rebirth. The most distinct characteristic of market economic entities is "profit-seeking." Facing the interplay between economic interests and social benefits, expecting rational choices requires a well-structured institutional arrangement.

On the one hand, harmful actions that damage the environment should be strictly penalized according to legal provisions. Relevant authorities should fulfill their duties by assessing and determining the environmental impact of these actions. This is undoubtedly a complex task because the environmental impact of human actions has a long duration and current technology is insufficient to fully understand environmental responses. Therefore, a multifaceted collaboration of related industries, technology, and regulation is necessary.

On the other hand, the establishment of a fault tolerance mechanism, along with incentives and support for market participants committed to industrial transformation, is essential. Green governance is a high-tech, high-investment, and high-awareness endeavor. It is fraught with difficulties and challenges on the path of exploration. In this context, establishing room for technology development, despite its imperfections, is essential in the governance scheme. The losses incurred should be compensated by subsidies from public finances. In summary, investment in environmental public welfare requires the most supportive environment. It should be formalized in legal terms through a framework that defines both penalties and rewards, prohibitions, and guidance, fostering a legal environment for green governance.

### **4. Conclusion:**

The path of green governance in megacities is the way to achieve a beautiful

China and, ultimately, the path to ecological civilization that satisfies the people. To achieve this, we must proactively embrace history, maintain a balance between tradition and innovation, stay strategically focused, uphold a spirit of perseverance, and courageously tackle challenges. Exploring and building this great endeavor is not only a significant task for achieving high-quality, distinctive, and sustainable economic transformation but also an important initiative in ecological civilization construction. Megacities bear a heavy responsibility, and the road ahead is long and arduous!

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