

Article

Comparison of Collective-Led and State-Led Land Development in China from the Perspective of Institutional Arrangements: The Case of Guangzhou

Jinkun Yang ¹, Zhouqian He ² and Haitao Ma ^{3,*} 

¹ School of Cultural Industry and Tourism, Xiamen University of Technology, Xiamen 361000, China; yangjk5@mail3.sysu.edu.cn

² School of Architecture and Planning, Nanjing University, Nanjing 210093, China; mg1936041@smail.nju.edu.cn

³ Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing 100101, China

* Correspondence: maht@igsnnr.ac.cn



Citation: Yang, J.; He, Z.; Ma, H. Comparison of Collective-Led and State-Led Land Development in China from the Perspective of Institutional Arrangements: The Case of Guangzhou. *Land* **2022**, *11*, 226. <https://doi.org/10.3390/land11020226>

Academic Editors: Baojie He, Ayyoob Sharifi, Chi Feng and Jun Yang

Received: 21 December 2021

Accepted: 29 January 2022

Published: 3 February 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: The existing literature explains well how dual urbanization promotes land development and spatial expansion in China, but few studies have examined the emergence of state-led and village-led land development by measuring the urban expansion ratio from the perspective of institutional arrangements. To fill this gap, this study examines the spatial pattern and evolution of urban expansion and then explains the institutional dynamics in evolving different spatial forms of land development in Guangzhou. Among the findings of our research, two important points merit special attention. First, this study examines the emergence of collective-led and state-led development in Chinese cities from the perspective of institutions with the support of empirical evidence from Guangzhou. Herein, urban expansion intensity (UEI) was used to improve urban expansion as an evaluation index of urbanization speed. Second, the present study developed a theoretical framework based on land property rights from an institutional perspective to explain the two forms of land development in the dynamic urbanization process. From a broader theoretical perspective, diverse spatial forms of land development in Chinese cities contribute to the understanding of urban land expansion based on an institutional approach. The policy implication of this study is that the speed of urban expansion will gradually slow with the advancement of new urbanization, and growth in collective land in the urban area will gradually decrease. Land redevelopment policies and regulations should be taken into account for collective land in urban areas, which is necessary for sustainable urban development in China.

Keywords: state-led land development; village-led land development; institution arrangement; Guangzhou

1. Introduction

Since the adoption of its reform and opening-up policy, China has experienced rapid urbanization, which has long attracted considerable attention from scholars and policy makers [1–3]. Over the past three decades, the deepening reforms and increased penetration of global forces into the Chinese economy have resulted in large-scale land development across the country [4]. Between 1978 and 2020, China's resident urban population increased from 170 million to 901 million, and the urbanization rate increased from 17.9% to 63.89%. Urbanization in China is a multifaceted phenomenon, involving rapid urbanization in multiple aspects and processes such as population, industry, and land expansion [5]. Land development, defined as the change in land form from a natural to a built-up state, is a major consequence of rapid urbanization in China. In China, rapid urbanization and the conversion of land from agricultural to urban use is based on two types of land

ownership, namely (i) urban land owned by the state and (ii) collective land owned by village collectives [6].

Over the past forty years, two distinct types of urbanization have emerged in China, namely: (1) top-down urbanization led by urban governments; (2) bottom-up urbanization led by rural villages [7]. Many studies have characterized urban land development as the effect of land property rights by referring to the land titling programs in other developing countries [8–15]. Previous studies have thoroughly explored the historical causes, problems, and impacts of the formation of the land system on the development of Chinese cities, and discuss the ideas of urban land reform in China in the future [5,16–19]. The existing literature explains well how dual urbanization promotes land development and spatial expansion in China, but few studies have examined the emergence of state-led and village-led land development by measuring the urban expansion ratio from the institutional arrangement perspective.

As a mega-city in China's developed Pearl River Delta, Guangzhou has experienced rapid urbanization driven by both local government and villager collectives, and so can be used to compare the changes in state and collective land transformation in the past four decades. The informal development of urban villages based on collective property and the formal development based on state property co-exist, which promotes the urbanization process in Guangzhou. The goal herein is to examine the emergence of these two types of development in Chinese cities from the perspective of institutions in China, supported by empirical evidence from Guangzhou. The policy implication of this study is that the speed of urban expansion will slow in the future with the advancement of new urbanization and emphasis on ecological protection policies. As urbanization increases, the intensity of urban growth will slow. A new institutional arrangement for collective land in urban areas is important for sustainable urban development in China.

The remainder of this paper is organized as follows. Section 2 presents the conceptual framework and analyzes the institutions and institutional changes in land development based on key concepts from new institutional economics (NIE). Section 3 presents the study area and data used in the research. Section 4 presents the findings about diverse spatial forms of urban development in Guangzhou. In drawing conclusions from these experiments, Section 5 highlights the understanding of diverse spatial forms of urban development in Chinese cities based on an institutional perspective.

2. Institutional Perspective on Land Development in Chinese Urbanization

Since Alexander, a large number of scholars have introduced the new institutional economics into the field of urban planning, which has focused on transaction costs and property rights theory. The institutional approach to the analysis of transaction costs and land property rights has been applied in different planning areas such as land use planning, housing, and land development. It focuses on value capture, land price mechanisms, land development processes, governance structures for land conversion, and redevelopment plans [20–23].

The concept of transaction costs can be traced back to Coase's [24] seminal work, *The Nature of the Firm*, and beyond such a limited definition, other scholars have offered a broader view of the concept [25]. Transaction costs are the costs incurred when economic exchanges take place [26]. North [27] sees institutions as "the rules of the game in society, or more formally..., human-designed constraints that shape human interactions and are seen as a measure of the valuable properties of what is exchanged, the protection of rights, and the costs of monitoring and enforcing agreements" [28].

The concept of transaction costs indeed has different aspects, and generally refer to the costs other than those of physical production. The transaction costs in a market are summarized as search and information costs, bargaining and decision costs, and supervision and enforcement costs [29,30]. Institutions are the product of human creation; they evolve and are changed by humans. Theoretical analysis must begin with the individual, while, at the same time, institutions impose ubiquitous constraints on individual choice. Combining

individual choices with institutional constraints is an important step in the study of the social sciences as a whole. The interaction of institutions and organizations determines the direction of institutional change [27]. The central question of human history is how to understand the great variation in historical change. Institutions play a key role in the distinction between different types of societies and in the differences in the performance of different societies. Despite the convergence of development in many countries in the context of globalization, it is a fact that institutions determine economic performance and that relative price changes are the source of institutional change. In *Structure and Change in Economic History*, the long-standing and widespread phenomenon that property rights have not led to economic growth is described, and the key to the solution is to explain the differences between institutions and organizations and their interactions. Organizations are created to take advantage of these opportunities, and their development will change institutions [29,30].

According to the Chinese Constitution, the form of land ownership in China is socialist public ownership, with two forms of property rights: state and collective ownership. Urban land is owned by the state and rural land is owned collectively. Under this institutional arrangement, China has two different bundles of property rights, namely, urban state land property rights and rural collective land property rights. In China, urban government influence and control over the land market is achieved through a series of institutional reforms and institutional arrangements. In these cities, the government has a cost minimization incentive and the rural collective economic organizations have a profit maximization incentive. Rural collective organizations do not have direct access to land revenue through the land market, but only to the revenue from land output [7,31,32].

This dual regulation system creates an unfair and opaque competitive environment that in turn leads to high levels of non-standard behavior and rent-seeking activity by different interest groups. This is the result of China's gradual reforms, leaving institutional space for rent-seeking activities in various non-regulated economies [33]. In China, the government has intervened in and manipulated the land market through a series of institutional changes and arrangements. The rural collective economic organizations are motivated to maximize benefits; they cannot obtain land gains directly from the land market and can only obtain the proceeds of land output. Rural collective land ownership is not a complete property right. In the process of urbanization, urban governments enjoy the surplus of land rent, whereas rural collective economic organizations cannot enjoy it directly under the existing system but have other ways to obtain this land-rent surplus. Against the background of dual property rights of land, city governments acquire the land-rent surplus by expropriating land for urban construction, and rural collective organizations seek the land-rent surplus via non-agricultural industrialization on land used for rural construction. These two types of behavior increase the financial incomes of these two types of interests, and in the context of fiscal decentralization, both are motivated to maximize land-rent surpluses. The formation of informal space is encouraged by both urban governments and rural collective economic organizations (Figure 1).

The present study is aimed at understanding this issue better by conducting an explorative analysis of the evolving land policies and their institutional implications for recent urban redevelopment in China based on dual land ownership, which provides an integrated analysis of two seemingly contradictory phenomena in China's urban development in the past four decades. On one hand, analyzing the expansion of state-led urbanization based on state property and spontaneous urbanization based on collective property is a useful supplement to studying urbanization in China to analyze more clearly the complexity and particularity of China's urbanization. On the other hand, Chinese cities are emerging in multiple senses: physically, they are growing rapidly as a result of the country's rapid urbanization and economic growth [34]. Understanding the two types of urban land development in this urban expansion has very important implications for global urban studies. The rise of Chinese cities provides an important experiment for global

urbanization; it can enrich the theory of urbanization by avoiding the occidentalism of Dick and Rimmer and rejecting the urban characteristics of the third world [35].

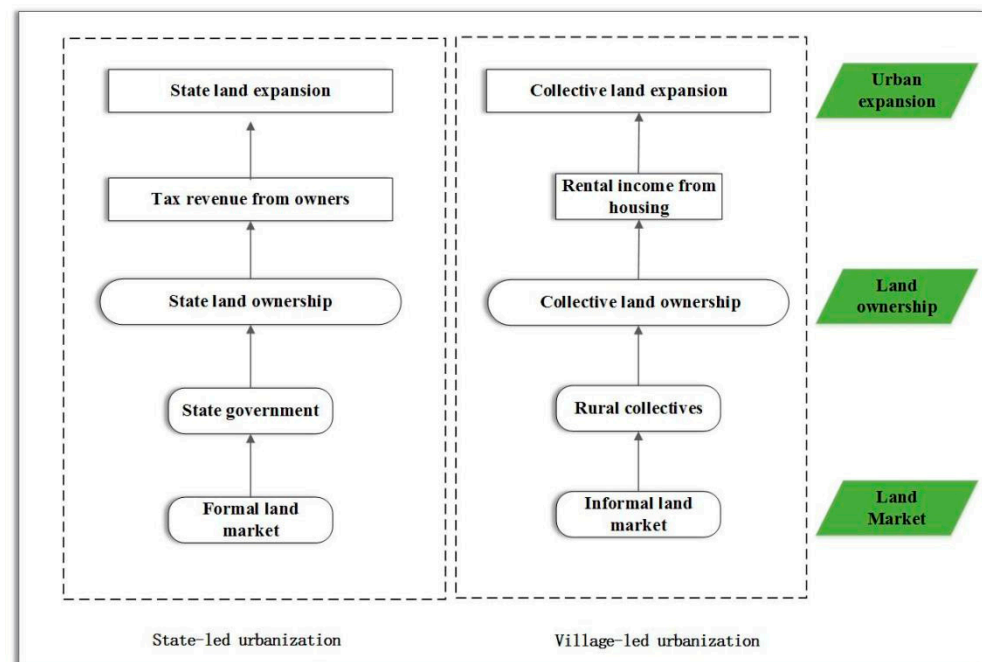


Figure 1. Research framework. (Source: drawn by the authors).

3. Study Area, Methods, and Data Sources

In the present study, the city of Guangzhou was used to analyze the emergence of the two aforementioned types of land development in China as the case. Guangzhou is located in the south-central part of Guangdong Province, through which the Pearl River flows (Figure 2). It is the economic, cultural, technological, and educational center and transportation hub of the central city in southern China. The study area included the districts of Liwan, Haizhu, Yuexiu, Tianhe, Baiyun, and Huangpu; these were chosen to compare the changes in state land and collective land in the city center of Guangzhou over the past 30 years.

The main sources of data in the study were Landsat-5 Thematic Mapper remote-sensing images with seven spectra and a ground resolution of 10 m. From the available data from the study area, the urban expansion of Guangzhou was monitored for the years of 1980, 1995, 2000, 2005, 2010, and 2015. Based on the outcomes of land classification, urban expansion was detected by overlaying multi-temporal LULC (and use and land cover) maps from 1980 to 2015 (Figure 3).

The urbanization intensity index (UII) has been used widely to measure the intensity of urban spatial expansion [36]. Instead, in the present study we used the urban expansion intensity (UEI) to improve the UII as an evaluation index of urbanization speed (see quantified spatial patterns of urban growth in Guangzhou during 1985–2010 with urban–rural development transformation):

$$UEI = \frac{U_{i+n}}{A} \times \frac{1}{n} \times 100\% \quad (1)$$

When $UEI = 100\%$, U_{i+n} and U_i point to the urban area in the target unit during the $i + n$ and i time period, respectively; here, n is the time interval, and A is the total study area, which varies from the total area of the space unit in the UII formula. The Urban Environment Institute calibrated the average annual rate of urban sprawl across the study area to ensure spatial comparability of urban sprawl in different time periods [36,37].

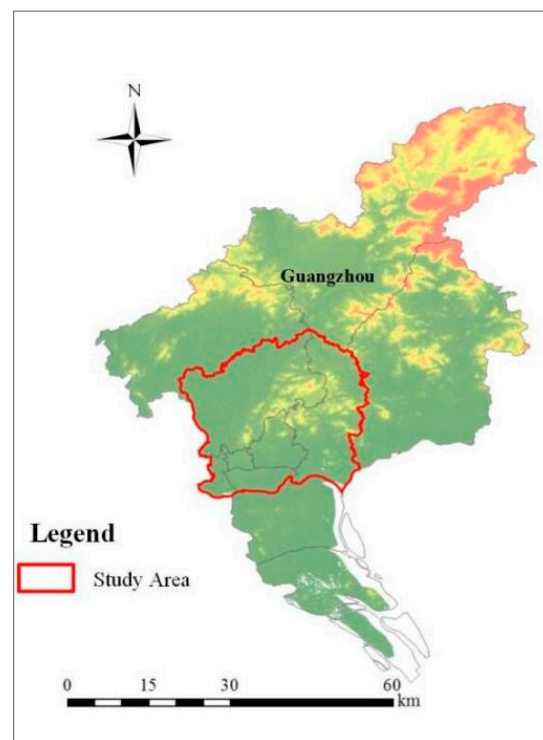


Figure 2. Map of study area. (Source: drawn by the authors).

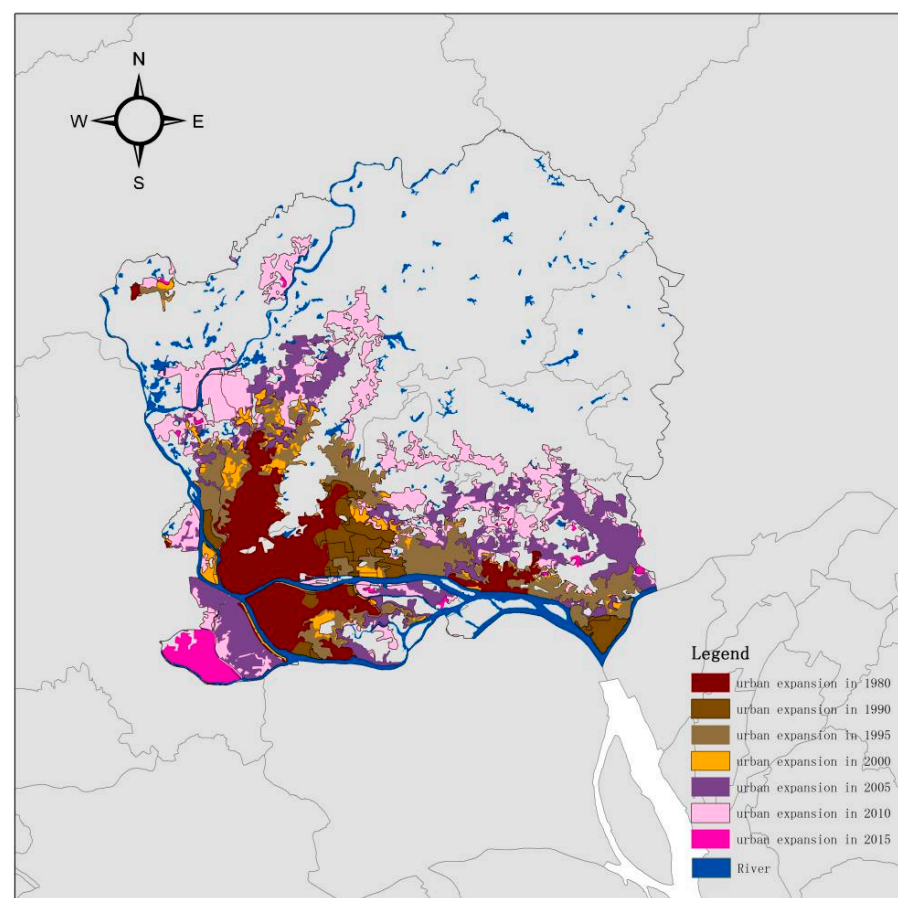


Figure 3. Urban expansion in Guangzhou in 1980, 1990, 1995, 2000, 2005, 2010, and 2015. (Source: drawn by the authors).

4. Diverse Spatial Forms of Urban Development in Guangzhou

In the 1980s, the construction land of Guangzhou comprised the districts of Baiyun, Tianhe, and Haizhu, after which time the construction land sprawled greatly east and north, covering the banks of the Pearl River. After the 2010s, the increased construction land was distributed discontinuously in the centers of suburbs, taking on leapfrog development patterns. Comparing the urban construction land and collective land shows that collective land was in the Baiyun District, and the remaining parts were scattered in other districts. In contrast, the urban construction land takes up disproportionately almost central locations of the city (Figures 3 and 4).

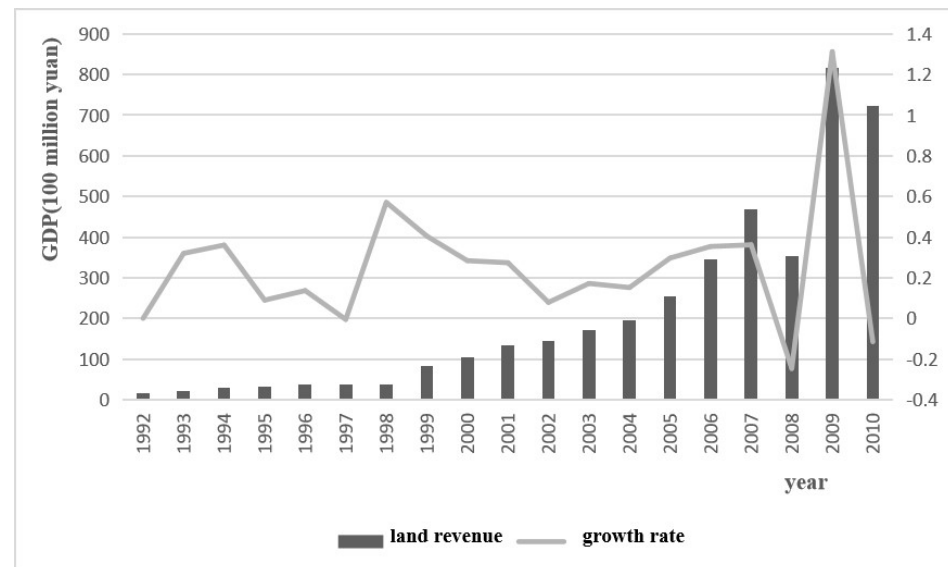


Figure 4. Financial revenue and growth rate of land in Guangzhou. Sources: Guangzhou Statistical Yearbook.

The UEI was used to measure the urbanization rate in the study area. From 1980 to 2010, land for urban construction and land for collective construction increased, and the direction of urban-construction land development was in line with that for collective construction (Figures 5–7).

During 1980–1990, after enacting the Land Management Act, land tenure could be transferred, thereby enabling the city to expand rapidly at this time. Moreover, the intensification of rural industrialization led to land expansion for collective construction. Both collective land and state land expanded rapidly (Figure 8). In 1990–1995, urban land and collective land grew slowly (Figure 9).

During 1995–2005, because of the nationwide moratorium on the conversion of farmland in 1997 and the systematic revision of the Land Management Act in 1998 [6], the conversion of land for construction was reduced, but the demand was so great that it promoted the rapid expansion of land for collective construction (Figures 10 and 11). Because of the introduction of the land auction and hanging system in 2005–2010, government land finance became an important financial resource, the development of state-owned land expanded rapidly, and the development rate of collective land decreased (Figure 12). With the transformation of China's economic development and the development of new-type urbanization, the national new-type urbanization plan (2014–2020) requires China's urban development to move towards a development path of high quality and efficient land development in the future (Figure 13). Urban land redevelopment in economically developed areas has gradually become an important source of urban land supply. In general, the process of land expansion was slow during this period.

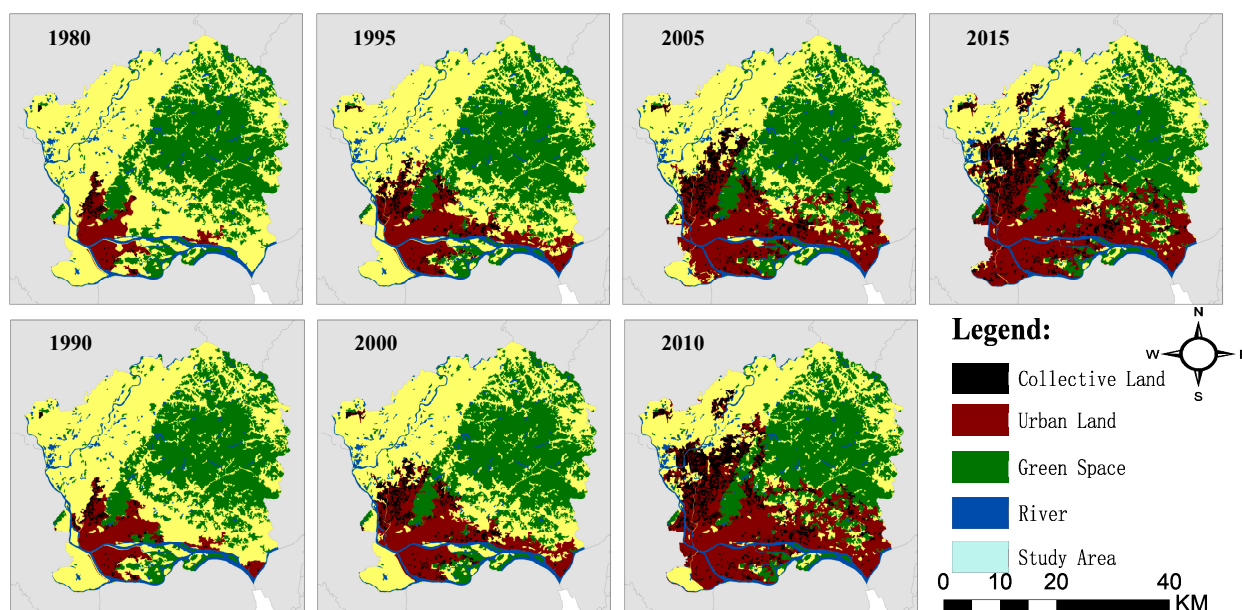


Figure 5. Spatial allocation of state land and collective land in 1980, 1990, 1995, 2000, 2005, 2010, and 2015. (Source: drawn by the authors).

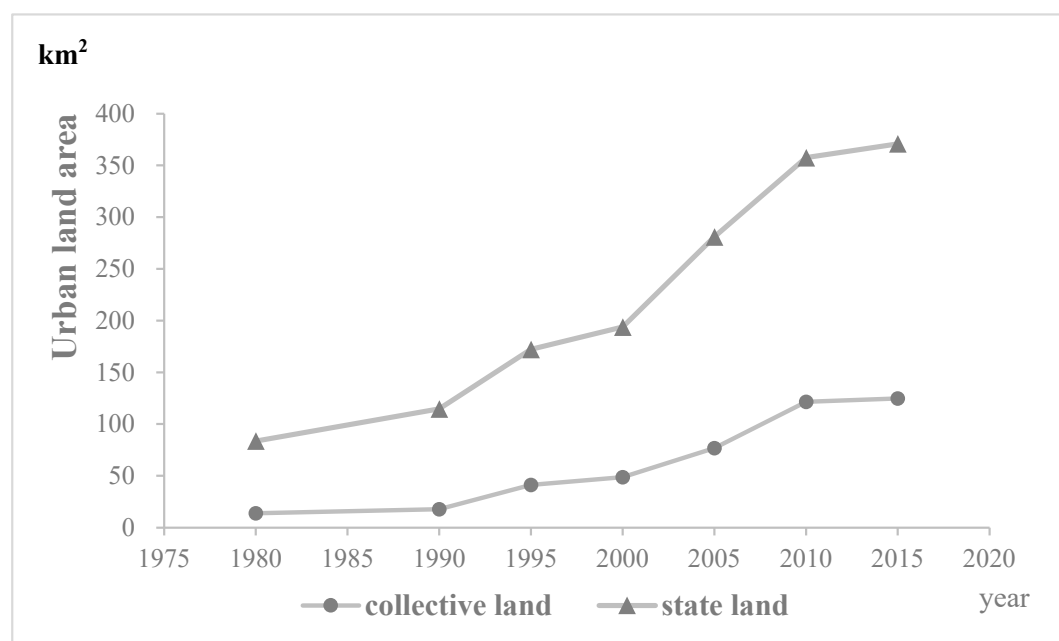


Figure 6. Total amounts of state-owned land and collective land. (Source: drawn by the authors).

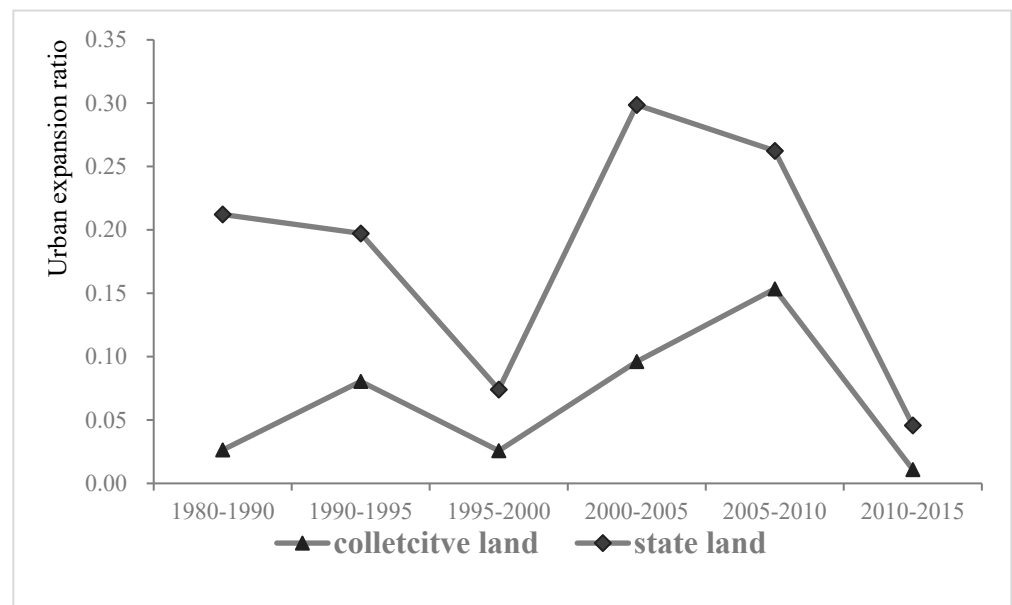


Figure 7. Urban expansion ratio between collective land and state land. (Source: drawn by the authors).

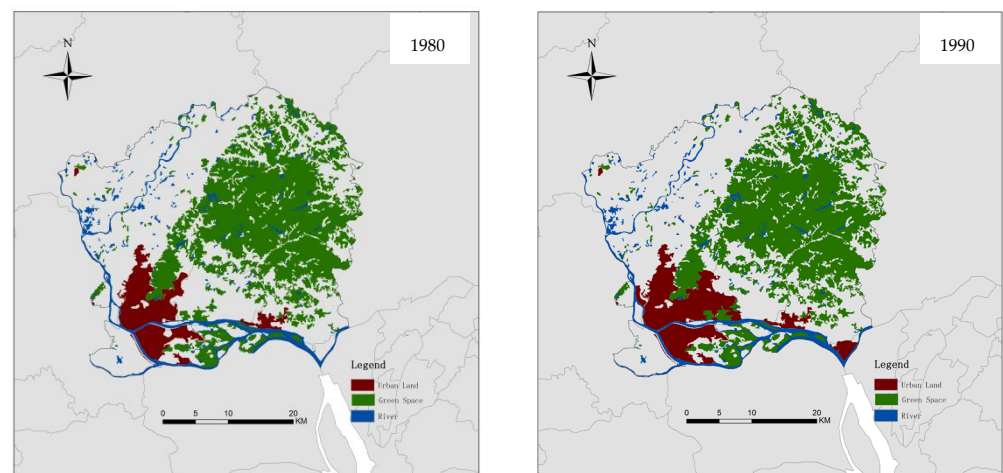


Figure 8. Urban expansion from 1980 to 1990. (Source: drawn by the authors).

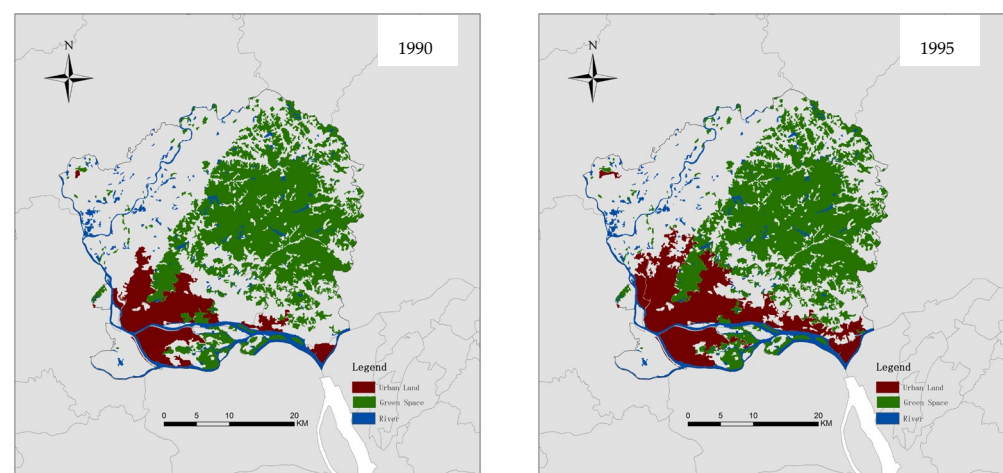


Figure 9. Urban expansion from 1990 to 1995. (Source: drawn by the authors).

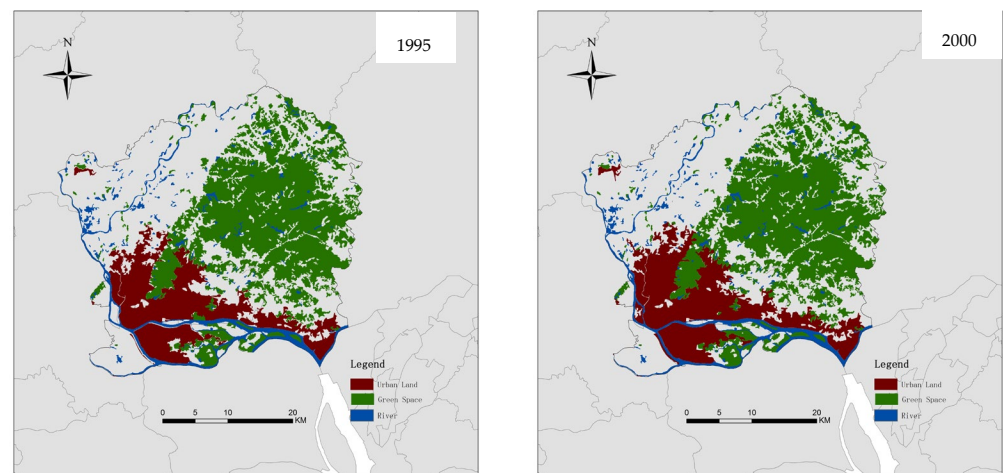


Figure 10. Urban expansion from 1995 to 2000. (Source: drawn by the authors).

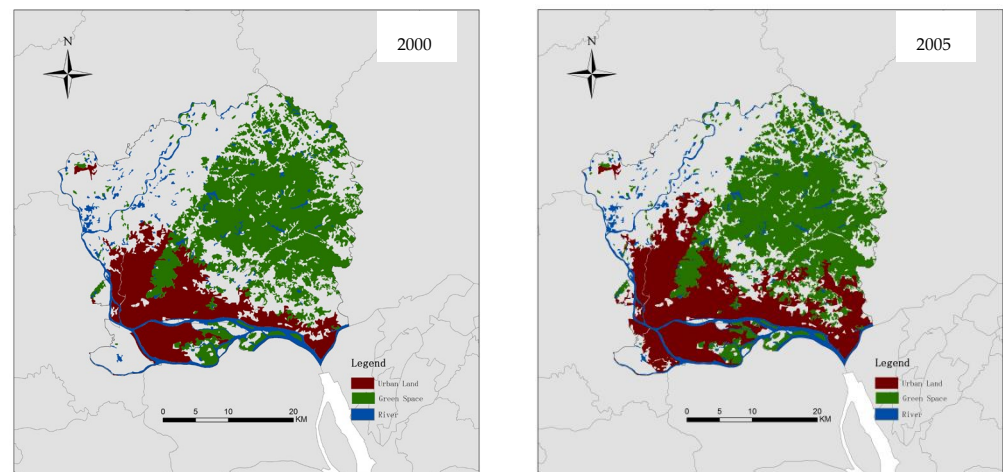


Figure 11. Urban expansion from 2000 to 2005. (Source: drawn by the authors).

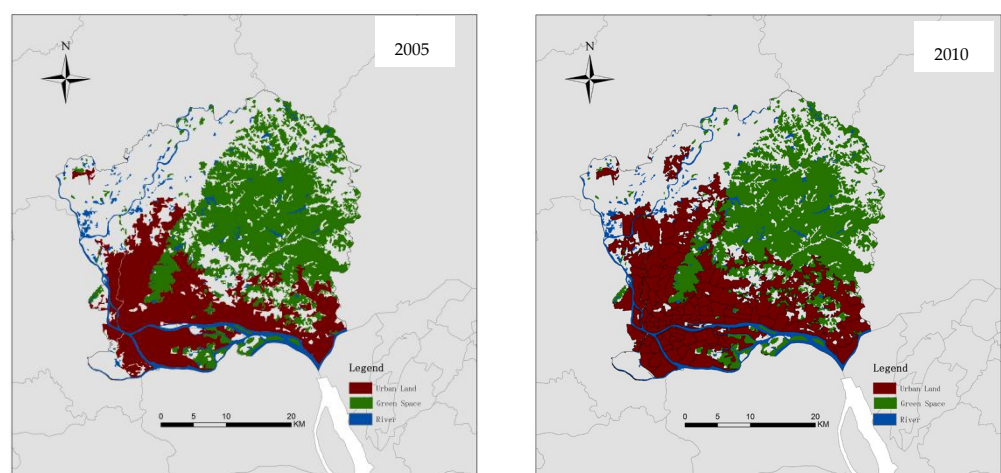


Figure 12. Urban expansion from 2005 to 2010. (Source: drawn by the authors).

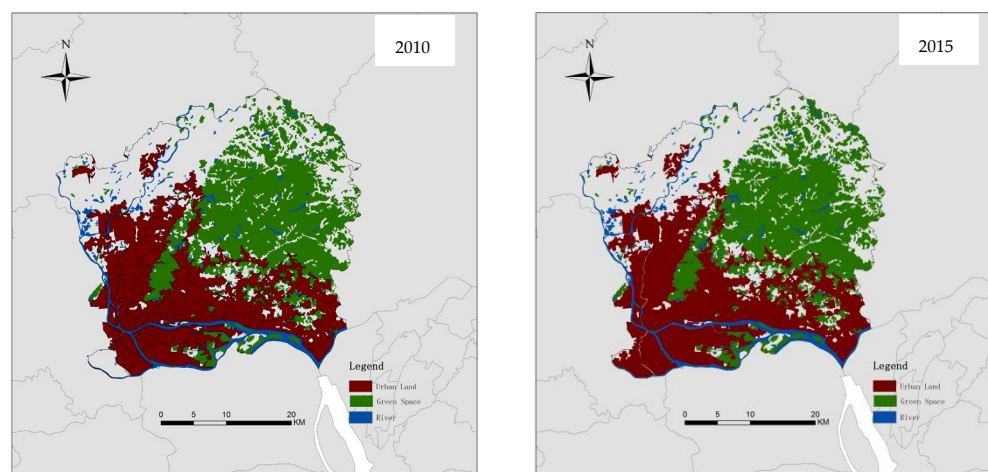


Figure 13. Urban expansion from 2010 to 2015. (Source: drawn by the authors).

The overall relationship was that the rate of expansion of state-owned and collective land (UEI) rose at the outset, and the growth rate was affected by the system introduced at different stages.

The existing literature characterizes urban land development as the effect of land property rights by referring to the land titling programs in other developing countries [22]. From Chinese urban studies, diverse spatial forms have emerged in marketization [38]. However, it is too early to reach a consensus on land property rights. The relationship between population mobility and urban land development reveals the unique patterns and processes of China's ongoing urban transformation. However, geographers and urban planners have been preoccupied with addressing the particularities of the demographic and spatial aspects of urbanization and seldom have an institutional perspective on land [4].

Without considering the dual regulation system in land development, assessing urban land development is likely to result in biased conclusions. Only when the seemingly separate and yet closely interrelated phenomena of urbanization (e.g., population mobility, urban land development, and institutions), land development, and the two types of land ownership that coexist in China's land administration system are brought together for investigation can we understand the evolution and dynamics of China's great urban transformation. Further research is needed to show that the dual land-ownership system is a significant factor that contributes to the rapid expansion of urban land in China. This present study confirms the need to examine the emergence of these two types of land development in Guangzhou city from the perspective of institutions.

After China's reform and opening-up, the belief in international academic circles is generally that the gradual reform by the Chinese government led to great success and long-term stable social development during the economic transition period. Gradual reform is the result of a choice of national political strategy. It is also supported by local governments, which maximize local government rent seeking by building coalitions of urban growth to achieve political and economic goals. China's gradual reform and the frictions and contradictions of its old and new systems leave institutional space for rent-seeking activities in various non-regulated economies [33]. The result of any rent-seeking activity is a waste of social resources rather than an increase in social value [39].

The development of Guangzhou relies on the government's monopoly system of the land. The land reform that began in the late 1980s changed the previous system of unpaid and indefinite use of land. Thus, China implemented two parallel land development models, i.e., (i) administrative allocation and (ii) paid transfer. Since the late 1990s, the government-led transformation of the old city and the development of the market have become the most direct factors affecting urban space.

In rural areas, the land is owned by collectives, and the state enjoys the right to land acquisition on the collective land. Relevant research shows that the dual land system is

one of the most important effects on urban development and urban space in China [40–42]. From the perspective of ownership structure, the land use system separates land use rights. From the perspective of land suppliers, the city government monopolizes the land market and prohibits collective economic organizations or farmers from directly dealing with land users. The state will requisition collective land according to construction needs and convert it into state-owned land before it can trade on land transfer. Driven by profit, the phenomenon of collective land and administrative allocation of land entering the market through non-standardized forms has always existed and is very prominent. This paper analyzes the understanding of diverse spatial forms of urban development in Chinese cities based on institutional perspective, and helps to understand Chinese cities in terms of processes and spatial forms.

North [43] believed that it is institutional rather than technical problems that make a decisive difference in economic growth. The analysis of the expansion of state-led urbanization based on state property and spontaneous urbanization based on collective property is a useful supplement to the study of urbanization in China to analyze more clearly the complexity and particularity of China's urbanization. The potential benefit caused by the system imbalance is greater than the potential cost is the driving force of the system change.

Institutional arrangements are a set of rules of conduct governing specific action models and relationships, and they can be formal or informal. State power is a series of systems, legal strategies, implicit exclusions, and inclusive logic practices that govern the space through state-owned land and collective land systems, household registration systems, land management laws, urban and rural planning laws, construction laws, and urban management regulations. However, up to one-third of new development belongs to the so-called limited property rights [44], where farmers developed housing for sale without complete national approval in terms of land use and land development rights, which otherwise have to be obtained through competitive bidding in urban land markets [34]. Therefore, landowners tend to choose the institutional way that pursues higher return at a lower cost. Thus, the higher transaction costs involved in a formal institutional framework impede the selection of this structure. In turn, informal land development continues to expand, despite the existence of prohibitive measures [20].

5. Discussion and Conclusions

China has a unique dual land ownership institution. Although state-led land development is dominant, collective-led land development, which has been overlooked in policy-making, is also pivotal for land development [45]. In academic studies, collective land is more likely to be developed than that transferred to state ownership, due to the lower transaction costs and higher incentives for profits [5]. In practice, collective properties are not incomplete and are unequal to properties of farmers. Thus, scholars proposed some suggestions for the transfer of collective-led land [46]. The policy implication of this study is that the speed of urban expansion will slow in the future with the advancement of new urbanization and the country's emphasis on ecological protection policies. At the same time, the growth in collective land in the urban area will gradually decrease. As collective land in cities becomes an important land reuse resource, new institutional arrangements should be implemented to develop new urban industries to meet the space required for high-quality economic development in China.

Many existing studies employ a mixed perspective to provide a comprehensive insight into the mechanisms of land development. Institutional perspectives highlight the role of institutions, especially local government, in the process of urban sprawl [47]. Scholars suggest that land use decisions are driven by land financial incentives, in which local governments act in accumulating financial revenue [48–50]. China's rural and urban land development, as an important case for critical evaluation, has filled the gap in the influential literature of land development [37,41,42]. Emerging Chinese cities provide evidence for observing the Global South, which cannot be explained easily by existing urban expansion theories derived mainly from developed Western countries.

Adopting an institutional method to the analysis of land development, the present study examined the emergence of these two types of development in Chinese cities. Three main points are concluded in this study. First, adopting an institutional approach to the analysis of land development, this study examines the emergence of collective-led and state-led development in Chinese cities from the perspective of institutions with the support of empirical evidence from Guangzhou. Herein, the UEI was used to evaluate urban expansion as an index of urbanization speed. Second, previous studies have paid more attention to top-down development led by the government and less attention to bottom-up development led by rural collectives. The present study developed a theoretical framework based on land property rights in NIE to explain the two forms of land development in the dynamic urbanization process. Third, we observed that the expansion of urban land in China is the combination of the two forms of land development in the process of China's rapid urbanization. Collective land is occupied by villagers and becomes an important force to supplement the development of cities' land, which develops a market-oriented development model in a relaxed institutional environment, mainly owned by collectives in urban villages. Understanding the two types of land development in urban expansion has very important implications in China. Our research finds that the rate of urban expansion will gradually slow with the launch of the new urbanization strategy and new additions of collective land in urban areas will gradually decrease. Land redevelopment policies and regulations should be taken into account for collective land in urban areas, which is necessary for sustainable urban development in China.

Author Contributions: Conceptualization, J.Y. and H.M.; methodology, J.Y.; writing—original draft preparation, J.Y. and Z.H.; writing—review and editing, J.Y., Z.H. and H.M., Funding acquisition, H.M. All authors have read and agreed to the published version of the manuscript.

Funding: This study is supported by the Strategic Priority Research Program of the CAS [grant number No. XDA28010300], and the National Natural Science Foundation of China [grant number 41971209], Fujian Social Science Fund [grant number FJ2021C036], Fujian Provincial Department of Education Fund [grant number] AS19312].

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Ewing, R.; Hamidi, S.; Grace, J.B.; Wei, Y.D. Does urban sprawl hold down upward mobility? *Landsc. Urban Plan.* **2016**, *148*, 80–88. [\[CrossRef\]](#)
2. Gillham, O. *The Limitless City: A Primer on the Urban Sprawl Debate*; Island Press: Washington, DC, USA, 2002.
3. Galiani, S.; Scharrodsky, E. Property rights for the poor: Effects of land titling. *J. Public Econ.* **2010**, *94*, 700–729. [\[CrossRef\]](#)
4. Lin, G.C.S.; Zhang, A.Y. Emerging spaces of neoliberal urbanism in China: Land commodification, municipal finance and local economic growth in prefecture-level cities. *Urban Stud.* **2015**, *52*, 2774–2798. [\[CrossRef\]](#)
5. Tong, D.; Wang, X.; Wu, L.; Zhao, N. Land ownership and the likelihood of land development at the urban fringe: The case of Shenzhen, China. *Habitat Int.* **2018**, *73*, 43–52. [\[CrossRef\]](#)
6. Lin, G.C.S.; Ho, S.P.S. The state, land system, and land development processes in contemporary China. *Ann. Assoc. Am. Geogr.* **2005**, *95*, 411–436. [\[CrossRef\]](#)
7. Wang, B.; Tian, L.; Yao, Z. Institutional uncertainty, fragmented urbanization and spatial lock-in of the peri-urban area of China: A case of industrial land redevelopment in Panyu. *Land Use Policy* **2018**, *72*, 241–249. [\[CrossRef\]](#)
8. Alston, L.J.; Libecap, G.D.; Schneider, R. The determinants and impact of property rights: Land titles on the Brazilian frontier. *J. Law Econ. Organ.* **1996**, *12*, 25–61. [\[CrossRef\]](#)
9. Besley, T. Property rights and investment incentives: Theory and evidence from Ghana. *J. Polit. Econ.* **1995**, *103*, 903–937. [\[CrossRef\]](#)
10. Brasselle, A.-S.; Gaspart, F.; Platteau, J.-P. Land tenure security and investment incentives: Puzzling evidence from Burkina Faso. *J. Dev. Econ.* **2002**, *67*, 373–418. [\[CrossRef\]](#)
11. Deininger, K.; Jin, S. Tenure security and land-related investment: Evidence from Ethiopia. *Eur. Econ. Rev.* **2006**, *50*, 1245–1277. [\[CrossRef\]](#)
12. Do, Q.-T.; Iyer, L. Land titling and rural transition in Vietnam. *Econ. Dev. Cult. Change* **2008**, *56*, 531–579. [\[CrossRef\]](#)
13. Goldstein, M.; Udry, C. The profits of power: Land rights and agricultural investment in Ghana. *J. Polit. Econ.* **2008**, *116*, 981–1022. [\[CrossRef\]](#)

14. Guo, Y.; Zhang, C.; Wang, Y.; Li, X. (De-) Activating the growth machine for redevelopment: The case of Liede urban village in Guangzhou. *Urban Stud.* **2018**, *55*, 1420–1438. [\[CrossRef\]](#)
15. Lai, Y.; Chan, E.H.W.; Choy, L. Village-led land development under state-led institutional arrangements in urbanising China: The case of Shenzhen. *Urban Stud.* **2017**, *54*, 1736–1759. [\[CrossRef\]](#)
16. Jiang, F.; Liu, S.; Zhang, Q. Measuring urban sprawl in Beijing with geo-spatial indices. *J. Geogr. Sci.* **2007**, *17*, 469–478. [\[CrossRef\]](#)
17. Yu, X.J.; Ng, C.N. Spatial and temporal dynamics of urban sprawl along two urban–rural transects: A case study of Guangzhou, China. *Landsc. Urban Plan.* **2007**, *79*, 96–109. [\[CrossRef\]](#)
18. Wu, B.H.; Xu, X.B. Tourism-oriented Land Development (TOLD): A new pattern of tourism-real estate development in China. *Tour. Trib.* **2010**, *8*, 12–24.
19. Yue, W.; Liu, Y.; Fan, P. Measuring urban sprawl and its drivers in large Chinese cities: The case of Hangzhou. *Land Use Policy* **2013**, *31*, 358–370. [\[CrossRef\]](#)
20. Darabi, H.; Jalali, D. Illuminating the formal–informal dichotomy in land development on the basis of transaction cost theory. *Plan. Theory* **2018**, *18*, 100–121. [\[CrossRef\]](#)
21. Alexander, E.R. A transaction-cost theory of land use planning and development control: Towards the institutional analysis of public planning. *Town Plan. Rev.* **2001**, *72*, 45–76. [\[CrossRef\]](#)
22. Lai, Y.; Wang, J.; Lok, W. Redefining property rights over collective land in the urban redevelopment of Shenzhen, China. *Land Use Policy* **2017**, *69*, 485–493. [\[CrossRef\]](#)
23. Webster, C.J. Public choice, Pigouvian and Coasian planning theory. *Urban Stud.* **1998**, *35*, 53–75. [\[CrossRef\]](#)
24. Coase, R. The nature of the firm. *Economica* **1937**, *4*, 386–405. [\[CrossRef\]](#)
25. Williamson, O.E. The economics of organization: The transaction cost approach. *Am. J. Sociol.* **1981**, *87*, 548–577. [\[CrossRef\]](#)
26. Cheung, S. Transaction Costs, Risk Aversion, and the Choice of Contractual Arrangements. *J. Law Econ.* **1969**, *12*, 23–42. [\[CrossRef\]](#)
27. North, D.C. A transaction cost theory of politics. *J. Theor. Polit.* **1990**, *2*, 355–367. [\[CrossRef\]](#)
28. Barzel, Y. *Economic Analysis of Property Rights*; Cambridge University Press: Cambridge, UK, 1997.
29. Dahlman, C.J. The problem of externality. *J. Law Econ.* **1979**, *22*, 141–162. [\[CrossRef\]](#)
30. Nabli, M.K.; Nugent, J.B. The new institutional economics and its applicability to development. *World Dev.* **1989**, *17*, 1333–1347. [\[CrossRef\]](#)
31. Zhu, J.; Hu, T. Disordered land-rent competition in China’s periurbanization: Case study of Beiqijia Township, Beijing. *Environ. Plan. A* **2009**, *41*, 1629–1646. [\[CrossRef\]](#)
32. Tian, L.; Zhu, J. Clarification of collective land rights and its impact on non-agricultural land use in the Pearl River Delta of China: A case of Shunde. *Cities* **2013**, *35*, 190–199. [\[CrossRef\]](#)
33. Nolan, P. Economic reform, poverty and migration in China. *Econ. Polit. Wkly.* **1993**, *28*, 1369–1377.
34. Wu, F. Emerging Chinese cities: Implications for global urban studies. *Prof. Geogr.* **2016**, *68*, 338–348. [\[CrossRef\]](#)
35. Dick, H.W.; Rimmer, P.J. Beyond the third world city: The new urban geography of South-east Asia. *Urban Stud.* **1998**, *35*, 2303–2321. [\[CrossRef\]](#)
36. Li, X.; Zhang, L.; Liang, C. A GIS-based buffer gradient analysis on spatiotemporal dynamics of urban expansion in Shanghai and its major satellite cities. *Procedia Environ. Sci.* **2010**, *2*, 1139–1156. [\[CrossRef\]](#)
37. Yang, Y.; Liu, Y.; Li, Y.; Du, G. Quantifying spatio-temporal patterns of urban expansion in Beijing during 1985–2013 with rural-urban development transformation. *Land Use Policy* **2018**, *74*, 220–230. [\[CrossRef\]](#)
38. Logan, J.R.; Fainstein, S.S. *Urban China in Transition*; Blackwell Pub. Ltd.: Oxford, UK, 2008.
39. Buchanan, J.M. Rent seeking and profit seeking. *Toward A Theory Rent-Seek. Soc.* **1980**, *3*, 15.
40. Li, X.; Xu, X. *Urbanization, Regional Integration and Economic Growth*; Science Press: Beijing, China, 2011.
41. Yang, J.; Guo, A.; Li, Y.; Zhang, Y.; Li, X. Simulation of landscape spatial layout evolution in rural-urban fringe areas: A case study of Ganjingzi District. *GIS Cience Remote Sens.* **2019**, *56*, 388–405. [\[CrossRef\]](#)
42. Yang, J.; Yang, R.; Chen, M.H.; Su, C.H.J.; Zhi, Y.; Xi, J. Effects of rural revitalization on rural tourism. *J. Hosp. Tour. Manag.* **2021**, *47*, 35–45. [\[CrossRef\]](#)
43. North, D.C. Institutions. *J. Econ. Perspect.* **1991**, *5*, 97–112. [\[CrossRef\]](#)
44. Deng, F. Housing of limited property rights: A paradox inside and outside Chinese cities. *Hous. Stud.* **2009**, *24*, 825–841. [\[CrossRef\]](#)
45. Tong, D.; Yuan, Y.X.; Wang, X.G. The coupled relationships between land development and land ownership at China’s urban fringe: A structural equation modeling approach. *Land Use Policy* **2021**, *100*, 104925. [\[CrossRef\]](#)
46. Kong, X.S.; Liu, Y.L.; Jiang, P.; Tian, Y.S.; Zou, Y.F. A novel framework for rural homestead land transfer under collective ownership in China. *Land Use Policy* **2018**, *78*, 138–146. [\[CrossRef\]](#)
47. Wei, Y.D.; Ewing, R. Urban expansion, sprawl and inequality. *Landsc. Urban Plan.* **2018**, *177*, 259–265. [\[CrossRef\]](#)
48. Liu, Y.; Fan, P.; Yue, W.; Song, Y. Impacts of land finance on urban sprawl in China: The case of Chongqing. *Land Use Policy* **2018**, *72*, 420–432. [\[CrossRef\]](#)
49. Wang, J.; Li, Y.; Wang, Q.; Cheong, K.C. Urban–Rural construction land replacement for more sustainable land use and regional development in China: Policies and practices. *Land* **2019**, *8*, 171. [\[CrossRef\]](#)
50. Ji, Y.; Guo, X.; Zhong, S.; Wu, L. Land Financialization, Uncoordinated Development of Population Urbanization and Land Urbanization, and Economic Growth: Evidence from China. *Land* **2020**, *9*, 481. [\[CrossRef\]](#)