

Article

The Integration of New-Type Urbanization and Rural Revitalization Strategies in China: Origin, Reality and Future Trends

Mingxing Chen ^{1,2,3} , Yuan Zhou ^{1,2,3} , Xinrong Huang ^{1,2,3} and Chao Ye ^{4,*} 

- ¹ Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, 11A, Datun Road, Chaoyang District, Beijing 100101, China; chenmx@igsnr.ac.cn (M.C.); zhouy.19b@igsnr.ac.cn (Y.Z.); huangsr.19s@igsnr.ac.cn (X.H.)
- ² Key Laboratory of Regional Sustainable Development Modeling, Chinese Academy of Sciences, Beijing 100101, China
- ³ College of Resource and Environment, University of Chinese Academy of Sciences, Beijing 100049, China
- ⁴ College of Geographic Sciences, East China Normal University, Shanghai 200241, China
- * Correspondence: cye@geo.ecnu.edu.cn

Abstract: New-type urbanization and rural revitalization have gradually become national strategies, and are an objective requirement for China to be able to enter into a new era of socialism with Chinese characteristics and also an inevitable result of the integration of new-type urbanization and rural development in the new stage. This paper reviews the classic theories and cognition of the research on urban–rural relations at home and abroad, and outlines the stage evolution characteristics of urban–rural relations in China. It is believed that urban-biased urbanization has widened the development gap between urban and rural areas since reform and opening up. Under the guidance of the two strategies of new-type urbanization and rural revitalization, urban and rural areas have transitioned from “one-way flow” to “bilateral interaction”, and from “urban bias” to “urban–rural integration”. This paper puts forward a research framework and scientific issues regarding the integration of new-type urbanization and rural revitalization from multidisciplinary perspectives. The integration of these two major strategies will contribute to a new situation of the coordinated and high-quality development of urban and rural areas in the new era.

Keywords: new-type urbanization; rural revitalization; urban bias; integration; urban–rural relation; research framework



Citation: Chen, M.; Zhou, Y.; Huang, X.; Ye, C. The Integration of New-Type Urbanization and Rural Revitalization Strategies in China: Origin, Reality and Future Trends. *Land* **2021**, *10*, 207. <https://doi.org/10.3390/land10020207>

Academic Editor: Luca Salvati

Received: 11 January 2021

Accepted: 10 February 2021

Published: 18 February 2021

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



Copyright: © 2021 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/>).

1. Introduction

Urbanization and rural development are not only the focus of multidisciplinary research at home and abroad, but also a major strategic issue related to the national economy and people's livelihoods [1]. As a complex process of transition from rural areas to urban cities on a regional scale, urbanization involves rural development. Particularly for China, which is a large developing country based on agriculture for a long time, conforming to the law of urbanization development in the world and simultaneously addressing the practical problems of rural revitalization have become an objective need for China, which has entered a new era and high-quality stage [2–5]. Urbanization and rural revitalization have both become national strategies, which also reflects the inevitability of the integration of these two strategies [6,7]. Unbalanced urban–rural development and inadequate rural development are the key issues in the new era of Chinese society [3,8]. As new-type urbanization and rural revitalization have become national strategies in succession, China is attaching great importance to the coordinated development of urban and rural areas [9]. However, how to combine these two strategies and guide further work awaits to be studied further. A literature review method and comparative analysis are used in this article. With the literature review method, the article summarizes the classic

recognition of urbanization and rural relations. With the comparative analysis, the article describes the particularity of urban and rural development in China. This paper reviews the classic recognition of urbanization and rural relations at home and abroad, and outlines the key events related to evolution of urban–rural relations and their impacts on urban–rural relations based on the development history of China, then analyzing the problems of urbanization and rural development since reform and opening up. It is believed that the urban-biased urbanization is an important factor that caused the gap between urban and rural development, and new urbanization will help to reverse the problems existing as a result of the past development. The integration of new-type urbanization and a rural revitalization strategy will further promote the interaction and coupling of urbanization and rural revitalization. From the view of multi-disciplinarity, this paper puts forward the scientific issues of the integration of new-type urbanization and rural revitalization, and constructs a research framework for the integrated development of these two strategies.

2. Historical Evolution of Urbanization and Rural Relations at Home and Abroad

Clarifying the historical evolution and logical relationship between urbanization and rural revitalization strategies at home and abroad, as well as the impact of policy practice, so as to realize the interaction and coupling of the two strategies, and finally achieving collaborative governance, is crucial.

2.1. Overseas Research

Rural development is the inevitable connotation of urbanization. Adam Smith, the originator of classical economics, put forward the “natural order”. He believed that there were villages first and then cities; cities came from rural development, and the wealth and poverty of a country mainly depended on the historical geography, institutional culture and other elements of urban and rural development [10]. Influenced by this, the German economic geographer Von Thünen [11], regards urban and rural areas as a whole in his “isolated country” model and explores the law of spatial distribution for different industries between urban and rural areas.

Western urban research can be traced back to the ancient Greek city-state theory where the ancient Greek combined the construction of the city-state with politics and civilization [12,13]. Plato’s utopia is the earliest utopia in human history [14]. The proponents of Utopia strongly advocate the integration and further design of urban and rural areas [15]. Subsequently, garden cities, urban agglomeration areas, organic evacuation and other theories also emphasize the integration of urban and rural development [16–19].

From 1940 to 1980, the “dual structure” paradigm dominated the study of urban–rural relations in the West. Due to the one-sided emphasis on urban and industrial development resulting in the development of rural agriculture lagging behind [20], the “dual structure” gave birth to two theoretical schools of urban and rural development. One is the Jorgenson model and Todaro Migration Model developed by reflecting on the Lewis Model [21,22]. The other is the theoretical model of urban and rural spatial polarization development represented by growth poles and a core periphery relationship [23]. Lipton believes that many countries divide urban and rural areas into two classes and implement “urban bias” policies, which lead to serious imbalances in urban and rural development [24,25]. The theory of unbalanced development between urban and rural areas dominated Western academic circles at that time.

After the 1980s, more scholars began to advocate urban–rural connection and coordinated development. Some geographers took the lead in challenging the trend of urban–rural division [26,27], and later, more international studies focused on coordinated development [28–30] and some new concepts were put forward. The pulling force of cities and the pushing force of rural areas in developing countries make cities and villages, and agricultural activities and non-agricultural activities, closely linked, and blur urban–rural boundaries [31]. The regional network development model holds that urban and rural areas generate stronger communication and networks through a series of “flows”,

thus promoting the integration of urban and rural development [32]. In terms of politics, the economy, society and culture, the interaction and association of urban and rural form an “urban–rural continuum” [33–36]. Based on the five aspects of “food flow, resource flow, people flow, concept flow and capital flow”, the interaction between urban and rural areas in developing countries is complex, and the “urban and rural dynamics” can reveal the complexity of urban and rural connection from the point of view of “livelihood strategy” and “resource allocation” [37]. Urbanization is transforming the planet, within and beyond cities, at all spatial scales [38]. The rural area (or countryside or the hinterland) has become key to the process of capitalist urbanization [39,40]. There are also many advanced practices in rural construction in Western countries, such as the “Bavaria experiment” in Germany, “New Village Movement” in South Korea and “city–village merger” in Japan. Taking the Bavaria experiment in Germany as an example, after World War II, the gap between urban and rural areas was further widened, and rural problems were prominent. Under the concept of urban–rural equivalence, district planning, land integration, agricultural mechanization, infrastructure construction, education development and other measures were started in rural areas, to make the rural and urban areas different in type but same in quality. The action is still popular in Germany for making the rural areas better [41].

With the evolution of the urban–rural relation theory, urban–rural governance has roughly gone through the process of the “co-governance of rural and urban, sub-governance of urban and rural, co-governance of urban and rural” [42]. After the industrialization of societies has begun, the gap between urban and rural development has increased, so different management methods have been adopted in urban and rural areas, that is, a separation of the administration of the urban and rural. Western countries have also experienced a process of change from urban–rural dual opposition to urban–rural integrated governance [43]. Since the 1990s, rural construction and governance have gradually become a research hotspot [44–50]. Such issues as rurality, the revitalization of the world’s rural areas, the future of rural areas, the relationships between climate change and rural evolution, and food security have become the focuses of research [51–56]. The entrepreneurship of farmers, the development of rural finance and multicomunity cooperation are regarded as the keys to rural revitalization [12,57]. In different countries, governments, other organizations and volunteers play important roles [58–62]. The evolution of urban–rural relation theory reflects the trend of change from attaching extremely great importance to cities to attaching equal importance to both urban and rural areas.

2.2. Domestic Research

Research on urbanization and rural development in China has generally exhibited a shift from an emphasis on rural development to an emphasis on urban development in the modern era and, to date, has developed to achieve the overall planning of urban and rural areas through the integration of the two strategies of new urbanization and rural revitalization (Table 1).

Agriculture was the foundation of society in ancient China. It was a long-term economic policy to emphasize agriculture and suppress commerce. Instead of resulting in a conflict between urban and rural areas, urbanization was based on and even oriented to rural areas, and free communication between urban and rural areas formed the integration of urban and rural areas [63]. However, the Opium War broke this integration in China during that historical period, causing opposition between urban and rural areas gradually. The invasion of capitalism has changed both the city and the countryside. The development of modern industry and commerce has made the city more prosperous than before, and it needed a lot of cheap labor, which led to the continuous migration of the rural population to the city. The urban–rural relations and the dependence of rural areas on cities have been strengthened, and the urban control and exploitation of rural areas have led to the decline of rural areas. A large-scale rural construction movement began to rise, with representatives of Yan Yang-chu, Liang Shu-ming, Lu Zuo-fu, etc. The movement focuses on the rural economy, rural education, the rural environment and rural transportation [21,64–66].

Table 1. Main stages and characteristics of China’s urban–rural relations and urbanization evolution.

Historical Period	The Western Zhou Dynasty	From the Eastern Zhou Dynasty to 1840	From 1840 to 1949	From 1949 to 1977	From 1978 to 1999	Since 2000
Urban–rural relations	Urban–rural opposition	Urban–rural coordination	Urban–rural opposition	Urban–rural segregation	Reverse of urban–rural segregation	Tendency to urban–rural integration
Urbanization model	Initial stage	Rapid development to stability	Urban development and rural decline	Stagnant urbanization	Rapid and large-scale	New-type urbanization
Urbanization system	Divided land into the residences of dignitaries and the cultivated land of civilians	Taxed and managed by household registration system	Dual structure	Dual structure	Urban bias	Urban–rural integration
Core systems and strategies	Social space of urban and rural; focus on rural social culture	Improving household registration system; joint and several forms of management and punishment	Modern town system: police system	Household registration and welfare system of urban–rural segregation; state monopoly	Efficiency priority; urban-biased construction; differentiated urban–rural public services	Construction of new countryside; new-type urbanization; rural revitalization
Peripheral system and culture	Echelons of administration; foreign policy of both conciliation and control	Prefectures and counties system and administrative province system; policy of promoting agriculture and discouraging commerce	The rise of pro-business culture	Closed economy and planned economy; strategy and ideology of heavy industry	Preliminary socialist market economy system; gradually liberalized urban–rural mobility	Socialist market economy system; gradually liberalizing household registration system; duality system tends to become flexible
Key points	Inequality between urban and rural areas under hierarchy	Taxes and land are separated from household registration system in later period; the strengthening of grassroots social control	Changing the structure of traditional Chinese urbanization; the focus of urbanization changes from regions south of the Yangtze river to coastal areas	Urban–rural dual system decided by regulations on household registration in 1958; unequal rights of urban and rural residents; restricted the migration between urban and rural areas	Urban–rural flow has improved the income level of farmers to some extent, but the absolute income gap between urban and rural areas has been expanding	Gradually establish and improve the system and mechanism as well as policy system of urban–rural integration development; promote the equalization of urban and rural basic public services

Since the 1950s, as a series of policies of industrial priority and urban bias have been adopted, the gap between urban and rural areas has been widening and resulted in the formation of an urban–rural dual structure [67]. The strategy of heavy industry priority under the planned economy promoted industrialization at the expense of agriculture and farmers, which made the urban–rural relations extremely unbalanced [68]. A strict household registration system and a series of economic and social systems derived from it, such as the urban welfare security system, urban–rural dual ownership system, dual citizenship system, and dual exchange and distribution system, led to the deepening of urban–rural isolation and the solidification of the urban–rural dual structure [69]. Since 2000, with the socialist new rural strategy, new-type urbanization strategy and rural revitalization strategy put forward in succession, urban and rural areas are showing a new trend of integrated development.

3. The Reality of Urbanization and Rural Development in China since Reform and Opening up

3.1. The Essential Fact of Urbanization and Rural Development in China

China has witnessed rapid urbanization in the past 40 years or so. The urbanization was 18.92% in 1978 and reached 59.59% in 2018. In 1978, there were only a 17.254 million urban population and 79.014 million rural population. However, there are now an 83.137 million urban population and 56.401 million rural population (Figure 1). In the past 40 years or so, China has made great progress in urbanization, which may have taken about a hundred years for some Western countries.

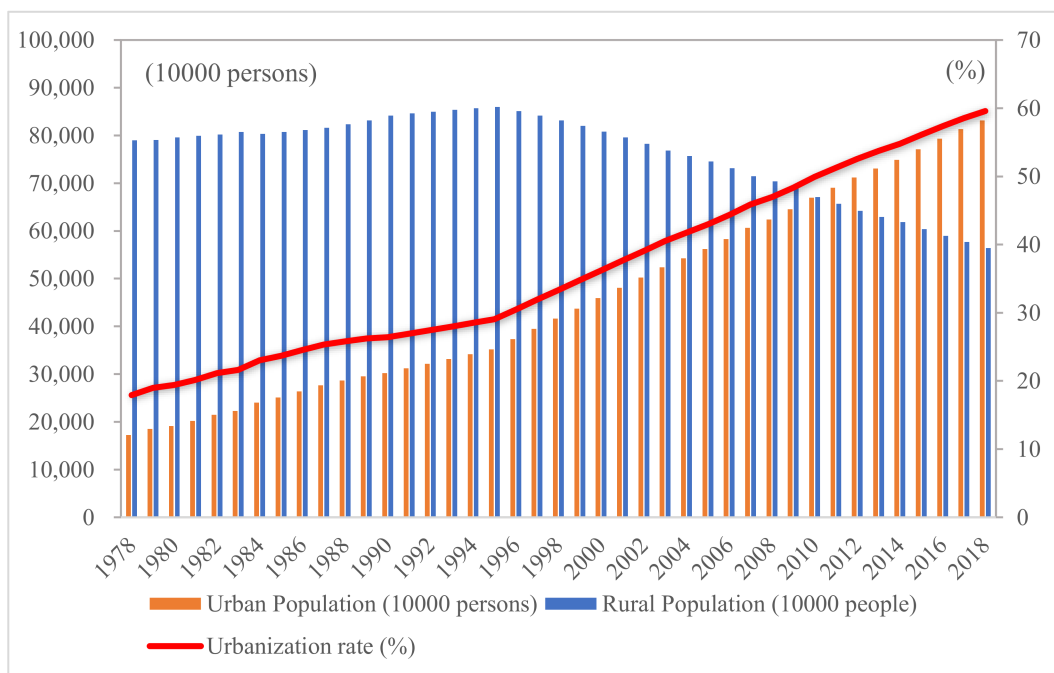


Figure 1. Changes in urban and rural population distributions in China. Source: China Statistical Yearbook 1979–2019.

The various geographical conditions in China result in the differences in population distribution patterns between the East and West, which present as “more in the East and less in the West”. There are three steps in the terrain of China, which bring about three natural regions: the Eastern monsoon climate region, northwest arid and semiarid region and Qinghai Tibet alpine region. To a certain extent, the natural conditions determine the basic pattern of China’s population distribution and urbanization development. Hu Huanyong, a famous geographer in China, put forward the important dividing line of population geography in 1935. Since Hu Huanyong proposed the line, the macropattern of the

population distribution has been basically stable. The population on the western side of the “Hu line” is still less, and that on the eastern side is more (Figure 2).

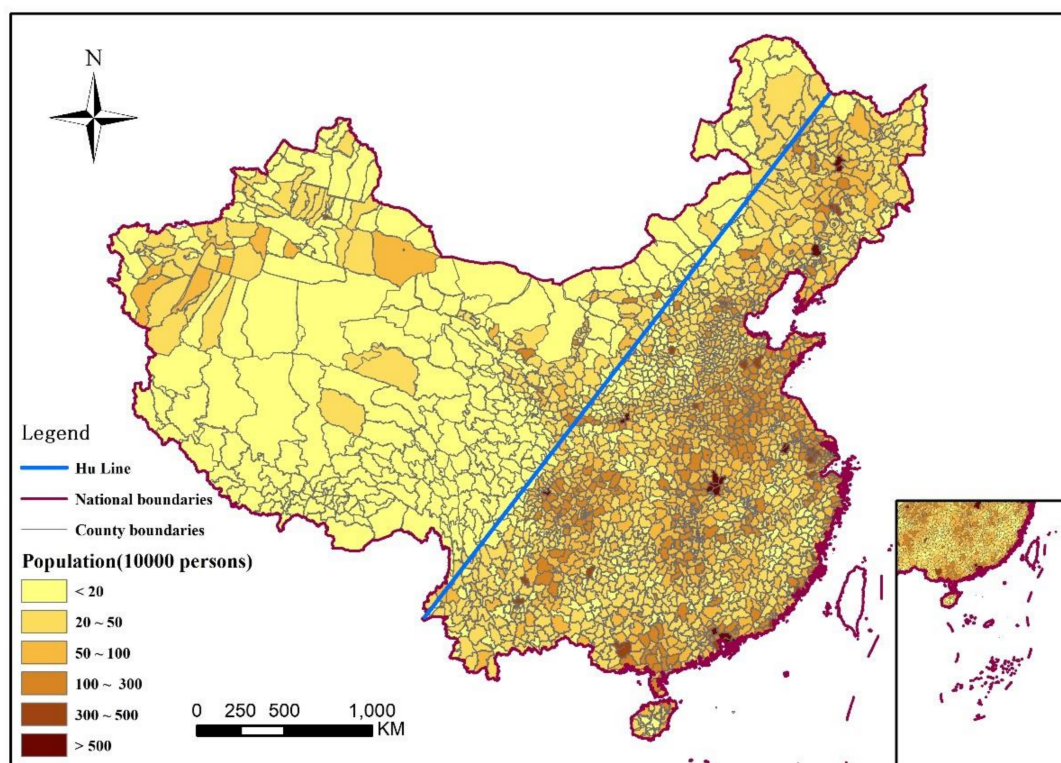


Figure 2. Population distribution of China in 2015. Source: 1% National Population Sample Survey 2015.

China’s government has taken various measures to promote urban and rural development recently. Especially in rural construction, targeted poverty alleviation and creating beautiful countryside are two typical measures. Targeted poverty alleviation aims to make all destitute households lifted out of poverty and backwardness. It includes providing jobs, various subsidies, serious illness insurance, etc., to protect the basic lives of them, and small loans, industrial poverty alleviation, and relocation to solve permanent poverty. The construction of beautiful countryside is to allow the exploration of special resources around big cities. Fresh air, leisure life and rural life are known to attract urban tourists, which contributes to farmers’ income through the linkage of agriculture and tourism.

3.2. Urban-Biased Urbanization Widens the Gap Between Urban and Rural Development

Since reform and opening-up, with the rapid development of urbanization, the gap between urban and rural areas has widened, and the imbalance between rural and urban development has become prominent (Figure 3). The per capita disposable income of urban residents increased from CNY 343.4 in 1978 to CNY 36,396.2 in 2017, while that of rural residents increased from CNY 133.6 to 13,432.4 during the same period. The per capita disposable income of urban and rural residents has increased significantly, but there is still a large gap. The per capita disposable income ratio of urban residents and rural residents fluctuates constantly. The average value of the ratio of disposable income from 1978 to 2017 was 2.81, while the minimum value was 1.86, and the maximum value was 3.14.

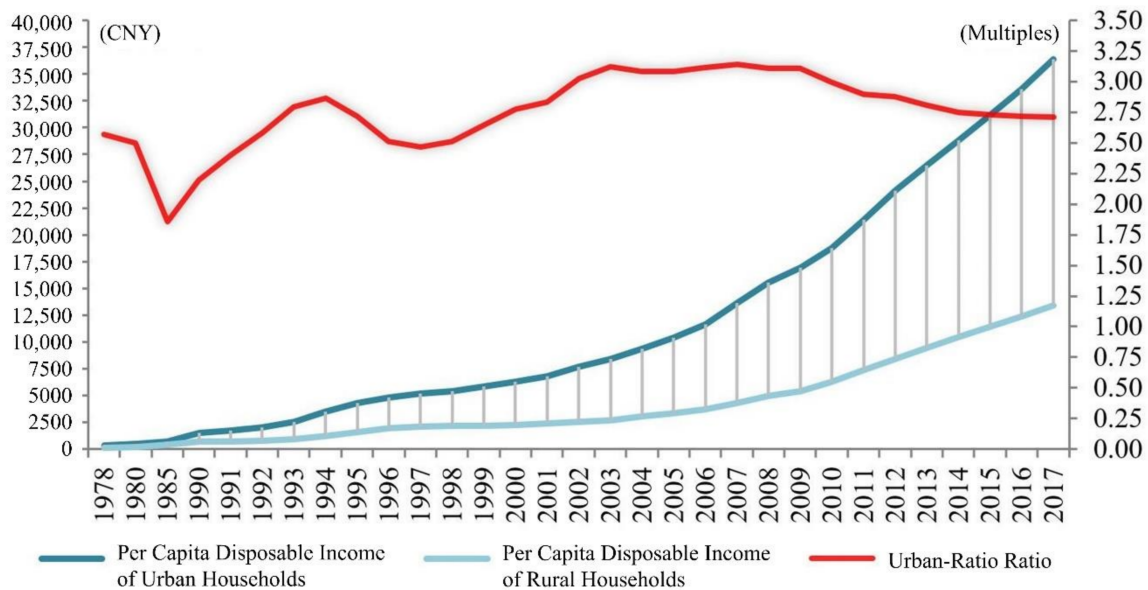


Figure 3. Per capita income gap between urban and rural residents in China (1978–2017). Note: Per capita disposable income is based on current prices. Source: China Statistical Yearbook 1979–2018.

With the increasing inequality between urban and rural areas, the coordinated development of urban and rural areas has become a research hotspot [5,70–73]. The driving forces of population migration in urban and rural areas mainly include the income gap between urban and rural areas, a surplus agricultural labor force, the development of township enterprises, the disintegration of state-owned enterprises and the emergence of private enterprises [74–76]. A series of urban-biased policies in the process of urbanization make cities gather a lot of resources in a short time, but lead to the decline of rural areas [1,5,77] and pose a serious challenge to the overall planning of urban and rural areas. The urban-biased urbanization has led to the expansion of the gap between urban and rural development [78]. For example, the per capita consumption level of urban residents is higher than that of rural residents. In 2017, the per capita consumption expenditure of urban residents was CNY 24,445, while that of rural residents was CNY 10,954.5, with the former being 2.2 times the latter. The total investment in urban fixed assets was CNY 63,168.4 billion, and that in rural households was CNY 955.44 billion, in 2017, accounting for 98.5% and 1.5% of the total investment in social fixed assets, respectively. There is also a gap in the quantity and level of basic public service supply between urban and rural areas; for example, in 2017, the number of health technicians and the number of beds in medical and health institutions per thousand population in urban areas were 10.87 and 8.75, respectively. By comparison, the numbers of health technicians and beds per thousand population in rural areas were 4.28 and 4.19, respectively. The numbers of health technicians and beds in urban areas were 2.54 and 2.01 times those in rural areas, respectively, and that indicates that high-quality medical and educational resources are mostly concentrated in urban areas.

3.3. The Gap between Urban and Rural Development Has Tended to Narrow to Some Extent in Recent Years

In 2017, the per capita GDP of China reached CNY 59,660, and the national urbanization rate reached 58.52%, while the urban–rural income gap reached 2.71 times and was higher than the level at the beginning of reform and opening up [79]. However, in recent years, the gap between urban and rural development has been narrowing [80,81], especially in the past decade; the ratio of the per capita disposable income of urban and rural residents decreased from 3.14 in 2007 to 2.71 in 2017. The new era is a key historic period for the transformation of the social principal contradictions, which are the key issues to be faced

and solved in the new era of China [82]. The unbalanced and inadequate development in the new era is reflected in many aspects, but it is mainly reflected in the unbalanced development of urban and rural areas, and the biggest deficiency is the inadequate development of rural areas [83]. The multiples of the urban–rural income gap in China have been in the range of 2–3 for a long time, while those in most countries are below 1.5 [84]. In the new era, “urban and rural China” must change from one-way urbanization to interactive development between urban and rural areas [85–87]. To promote the integrated development of urban and rural areas, we should not only promote the development of rural society and the rural economy, but also strengthen urban development [88]. The continuous development of urbanization and urban innovation are important driving forces for the continuous development of rural revitalization. It is no accident that new-type urbanization and a rural revitalization strategy are being put forward in succession. The coupling of these two strategies is the key for solving the imbalance of urban and rural development in the new era.

4. The Prospect of the Integration of New-Type Urbanization and Rural Revitalization

4.1. Prediction of the Trend of New-Type Urbanization and Rural Revitalization in the New Era

There is often a misunderstanding that urbanization is urban development. In fact, urbanization is a regional process including urban and rural areas and a regional spatial change process in which the labor force, population, land and other elements in rural areas transfer or change to urban areas [89], and it is not a simple urban development problem. There is no practical significance to simply saying that the urbanization level of any urban built-up area is 100%. Therefore, urban–rural relations are essentially one of the important elements of urbanization. New-type urbanization requires the integrated development of urban and rural areas [6,8]. Whether the relations between urban and rural areas are isolated or interactive is related to the long-term development of the country and region. The proposal of the Rural Revitalization Strategy is the best interpretation of the changes in the principal contradictions in the new era. It is a reflection on the past urban bias and rural decline in the process of urbanization and a strategy for dealing with them [1]. It is necessary to promote a collaborative approach involving the government and residents [90], establish an integrated land-use policy framework, formulate and implement effective land-use policies, regulate the process of the conversion of farmland to nonagricultural use, and improve the efficiency of land allocation for urban and rural construction to realize the coordination of land use with the stage of economic development [1,4,91–94]. The weakness of rural development in the process of urbanization should be seized to promote rural revitalization and the high-quality development of new-type urbanization with urban–rural integration [6]. The main trends of new-type urbanization and rural revitalization in the future are predicted to be as follows:

A transition from urban-biased urbanization with the one-way flow of rural–urban to new-type urbanization with a two-way interaction of urban and rural. The “push–pull model” has generally been used to describe the process of rural–urban in the past—that is, the pushing force of rural areas and the pulling force of urban areas, which together lead to a large-scale population migration from rural to urban areas—and it was generally considered as a one-way flow of population from rural to urban areas. With the integration and development of new-type urbanization and rural revitalization, there should be a two-way positive interaction between urban and rural areas, with various resources and elements flowing freely between urban and rural areas.

Urban–rural integration is not only an important trend of the middle–last period of urbanization in China, but also the inherent demand of Chinese traditional culture and the inevitable demand of socialist modernization. The period from 2020 to 2035 is the key period for China to basically realize socialist modernization in, and the gaps between urban and rural areas are one important index of it.

The absolute gap between urban and rural will still exist for a period in the future, but the relative gap between urban and rural is expected to slow-down in growth in

China. Recently, China has made historic achievements in targeted poverty alleviation. China manages to achieve the goal of getting rid of poverty and building an overall well-off society by 2020. It can be expected that with the integrated development of new-type urbanization and a rural revitalization strategy, the gap in basic public services and living standards between urban and rural will continue to narrow.

The urban–rural gap between the east and the west of the “Hu Line” will remain at a high level, but the relative gaps between urban and rural in the east and the west will be narrowed, respectively. It is predicted that the stability of the “Hu Line” will continue to exist, and the distribution pattern of the large populations and the difference in economic development levels in China will not be fundamentally changed in the short term [95]. However, the relative gap in social development and basic public service levels in urban and rural areas between the east and the west of the “Hu Line” will be narrowed [96].

Strengthening the coordinated governance of urban and rural areas is an internal requirement of the integrated development of new-type urbanization and rural revitalization, which is also the key to achieving the integrated development and implementation of these two strategies. Coordinated urban–rural governance mainly includes the free flow of various resources and elements of urban–rural development; the linkage of urban and rural economic industries; the integrated development of primary, secondary and tertiary industries; the integration of urban–rural spatial planning and infrastructure layout [1]; the organic integration of urban and rural development communities; and the renewal of urban and rural communities, with local characteristics as the core.

4.2. The Main Challenges of New-Type Urbanization and Rural Revitalization in the New Era

The strategic coupling and coordinated management of new-type urbanization and rural revitalization is the implementation of “people-oriented” development and the only way to urban–rural integration. The review of overseas research, and the experiences and evolution of urban–rural relations and urbanization processes in Western countries are valuable, and have reference significance to China. However, it is not appropriate for China to adopt Western models completely because there are many differences in urbanization processes between China and developed countries. First, the urbanization in developed countries is gradual, with the evolution of industrialization over a long period of time, and the urbanization of the population, the urbanization of land and industrialization are synchronous. By contrast, before reform and opening up, there was mostly no process of urbanization in China. Then, urbanization experienced a high speed and large scale after reform and opening up. This means that cities in China need to receive large-scale populations from rural areas within a short time and face a rapid increase in the urban public services required by the urban population. The fact that the urbanization of the population, the urbanization of land and industrialization are not synchronous is resulting in the appearance of peri-urbanization. Second, population mobility and settlement in cities face different extents of difficulty in China. The former is related to economic conditions and own needs. The latter is limited because settlement in cities needs to meet the requirements of the household registration systems in different cities, especially in megacities. Except for the roles that government play in the process of urbanization, the national conditions, systems and demand in Western countries and China are different. In such a unique environment, there are many problems brought about by rapid urbanization. The traditional urbanization mode of China shows the important characteristics of “large-scale spatial production”, “peri-urbanization”, “complexity of multiple factors” and “serious urban–rural isolation”, some of which hinder the healthy development of urbanization. Thus, taking Western experiences and models as reference, China should change the urbanization mode considering individual characteristics and needs. The traditional urbanization model, in which space production is taken as the core and population and industrialization are considered as playing leading roles, must be changed. Further urbanization should promote and implement new-type urbanization and a rural revitalization strategy with good human life, local culture, social justice and

civil rights, being “people-oriented” at its core and gradually forming a mode of new-type urbanization with Chinese characteristics and rural revitalization.

The principal contradiction facing China in the new era has changed into the contradiction between unbalanced and inadequate development and the people’s ever-growing needs for a better life. The contradiction is mainly concentrated in the agricultural and rural areas, so the evolution of urban–rural relations determines the overall change in social contradictions. Due to the existence of historical laws and geographical inertia, there will be the following major challenges and trends in urban–rural relations in China by 2050:

The geographical characteristic of “one side adjacent to the sea” will still be the main factor for the regional imbalance of urban–rural relations in China. Because most of the coastal areas in the world are still in periods of rapid development, the advantages of foreign trade and the urbanization of coastal areas in China will continue, while the inland areas are still facing the constraints of water resources and development paths, so it will be difficult to change the situation of the imbalance in development between the eastern and the western areas in the short term.

The unbalanced and insufficient development in space will continue to embody the characteristics of the “Hu Line” as the geographical boundary. The “Hu Line” not only reflects the long-term demographic geographical pattern of China, but also profoundly reflects the spatial differences in society, the economy, culture and other aspects in China. The east and west of this line have historical inevitability and realistic stability. Therefore, breaking through the current situation of the spatial imbalance of the “Hu Line” will be a long-term process.

The exploration of development paths and transformation driven by innovation.

It is crucial to have talent attraction and technological innovation, as well as the transformation of the development mode. In particular, great importance should be attached to the impact of science and technology on the urban–rural relations and regional development. With the continuous promotion of information technology, the Internet has greatly changed the spatial distance of urban–rural areas and different regions, which provides a basic guarantee for the development of emerging industries in rural and inland areas, promoting rural revitalization and inland development into a new era of diversified development.

Deepening the reform of the system and mechanism is the key measure. The proposal of “Rural Revitalization” in the new era has brought important strategic advantages for the integration of urban and rural development, and agricultural and rural areas are even at an unprecedented national strategic height. China will accelerate the reform of the system and mechanism for the integrated development of urban and rural areas to achieve balanced and full development. In July 2014, the State Council agreed to establish an inter-ministerial joint meeting system to promote new-type urbanization with The Letter of State [2014] No. 86, which requires that under the leadership of the State Council, the National Development and Reform Commission should take the lead in comprehensively promoting the implementation of the national new-type urbanization plan and the policy formulation (Figure 4). The State Council held six meetings to summarize and deploy the key tasks of the annual work, which played an important role in effectively promoting the implementation of the national new-type urbanization plan and coordinating and solving major problems. In July 2019, the State Council further agreed to establish an interministerial joint conference system for urbanization and urban–rural integration development, which is the system design and guarantee expected to play an important role in accelerating the high-quality development of urbanization and urban–rural integration. In addition, the evolutionary history of urban–rural relations is basically consistent with the changes in Chinese history and culture, so an urban–rural integration system and cultural system with Chinese characteristics are important parts of the overall development of urban and rural areas.

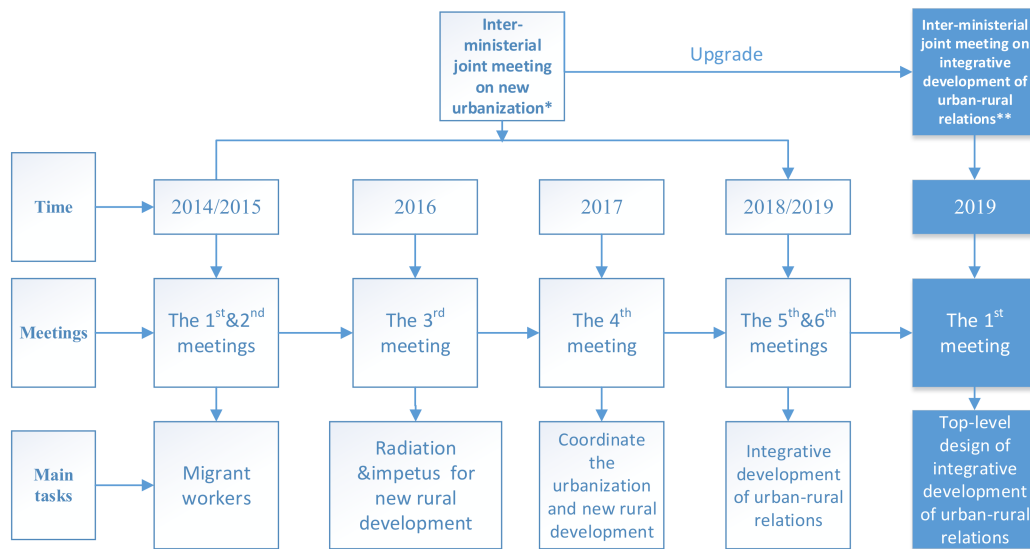


Figure 4. Evolution of inter-ministerial joint meeting on urbanization and integrative development of urban–rural relations (collected from relevant reports).

5. Discussion

The relations between new-type urbanization and rural revitalization are symbiotic. The current research is still insufficient; the discussion hopes to build the following research framework to provide new perspectives and ideas for later researchers. Research on the strategic coupling and collaborative path of these two strategies will help to solve the “three rural” problem and change the development mode of traditional urbanization, thus further realizing the overall development of urban and rural areas. Different disciplines and perspectives have important reference significance and provide inspiration for a comprehensive and profound understanding of the strategic coupling of new-type urbanization and rural revitalization (Figure 5).

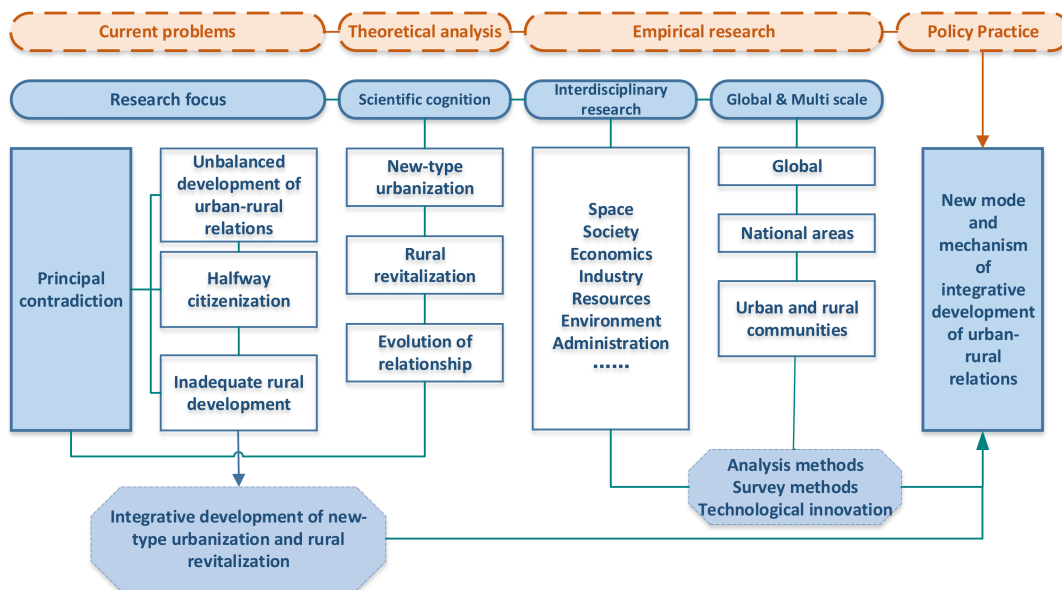


Figure 5. Research framework for integrated development of urbanization and rural revitalization strategy.

Build a research framework for the integration of new-type urbanization and rural revitalization. Research on urbanization and rural research tend to be separated; there is less on the integration of the two strategies. There have been more review studies since

the founding of the People's Republic of China and reform and opening up, but fewer prospective studies combined with the background and characteristics of the new era. Therefore, based on the new era, putting forward a strategic coupling research framework for new-type urbanization and rural revitalization, and constructing a new model of collaborative governance, could address the gap in this research.

Establish a comprehensive research paradigm with an interdisciplinary vision. Although many studies focus on urban–rural relations at present, there are often different positions and perspectives between different disciplines, with a lack of dialogue, intersection and integration among the disciplines. Therefore, it is necessary to break the boundaries of disciplines in knowledge or epistemology and conduct interdisciplinary and comprehensive research oriented by problems. The understanding of the requirements of the high-quality development of China in the new era should be deepened, and comprehensive research in multiple dimensions such as space, society, the economy, industry, the resource environment and systems should be carried out.

Focus on the global perspective and multiscale integration of research. It is necessary to carry out solid research systematically comparing and summarizing the theoretical and historical basis of the differences in urban–rural relations between China and foreign countries. It is necessary to establish a global perspective and fully draw on the experience of the development of urban–rural relations in developed countries. New-type urbanization with Chinese characteristics and rural revitalization have been promoted as national strategies, and this institutional design is having an important impact on the evolution of urban–rural relations. Compared with developed countries, it may also form a path of specialization and differentiation. In addition, the urbanization process and rural development in different regions and stages in China are quite different. It is also necessary to analyze the scale differences and regional characteristics from a global perspective at different spatial scales such as countries, urban agglomerations, provinces, big cities, medium- and small-sized cities, counties, towns and villages.

Strengthen technological innovation, and refine and deepen scientific research on urban–rural relations. Collaboration mainly refers to the collaborative operation and governance of policy practice through multiagent, multiple technologies and methods. It requires the comprehensive use of the methods of logical analysis, quantitative analysis, statistical analysis, comparative analysis and case analysis; moreover, attention must be paid to social survey methods such as field surveys, in-depth interviews and questionnaires, and new technology methods such as geographic information technology, big data technology, visualization technology and neural networks should be innovatively explored to solve the complex problems of urban–rural relations. The study of urban–rural relations is a very grounded research field relevant to the real world, which needs to further refine and deepen scientific issues, and carry out in-depth research on the spatial–temporal patterns, integration paths, symbiotic effects and institutional mechanisms of urban–rural relations. In addition, for research on the integration and development of new-type urbanization and rural revitalization, attention must also be paid to facing up to the practical problems so as to draw lessons and avoid risks.

6. Conclusions

With the literature review method and comparative analysis, this paper reviews the historical evolution of urbanization and rural relations at home and abroad, and analyzes the problems of urbanization and rural development since reform and opening up. Based on the above analysis, this article points to the predication and challenges of new-type urbanization and rural revitalization in the new era, and puts forward a research framework for the integrated development of urbanization and a rural revitalization strategy in the discussion.

Both the overseas research and domestic research conclude that urban and rural areas are showing a new trend of integrated development. In the urbanization progress of China, urban-biased urbanization has resulted in a development gap between urban and rural

areas since reform and opening up. The gap between urban and rural development has been tending to narrow relatively in recent years, and new-type urbanization and rural revitalization have contributed to this. The main trends in new-type urbanization and rural revitalization in the future are predicted as follows: new-type urbanization with a two-way interaction between urban and rural areas, urban–rural integration, a stable gap between urban and rural areas, a relatively smaller urban–rural gap between the east and the west, and coordinated governance between urban and rural areas. The major challenges in urban–rural relations in China by 2050 will be as follows: The geographical characteristic of “one side adjacent to the sea” will still be the main factor for the regional imbalance of urban–rural relations in China. The unbalanced and insufficient development in space will continue to embody the characteristics of the “Hu Line” as the geographical boundary. The exploration of development paths, transformation driven by innovation, and deepening the reform of the system and mechanism are the key measures and trends.

This study took China as a case, starting from the theory of urban–rural relations and starting from the reality of China’s urbanization and rural development, considering the deficits and successes in urbanization practice. Combined with the new-type urbanization strategy and rural revitalization strategy, this article presents powerful actions for the state to use to promote the coordinated development of urban and rural areas in the near future at the policy practice level. It also predicts the trends and challenges for the future urban and rural development in China. This study provides an idea of urban–rural integration for developing countries such as China where the government plays an important role in the context of the global flow of urban–rural elements. In the research of urban and rural development, this study discusses a theoretical framework and emphasizes the importance of multidisciplinary integration, new technology application, and international and domestic vision switching.

Author Contributions: M.C. supervised the conceptualization, designed the research framework, prepared the original draft, and conducted the revision of the manuscript. Y.Z. made the diagrams and wrote a part of the contents. X.H. made the diagrams and wrote a part of the contents. C.Y. reviewed the manuscript, prepared the original draft and wrote a part of the contents. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by National Natural Science Foundation of China, grant number 41822104 and grant number 41871143, the Chinese Academy of Sciences Basic Frontier Science Research Program from the 0 to 1 Original Innovation Project grant number No. ZDBS-LYDQC005, the Strategic Priority Research Program of the Chinese Academy of Sciences, grant number XDA23100301 and the Youth Innovation Promotion Association of the Chinese Academy of Science, grant number 2017072.

Conflicts of Interest: The authors declare that they have no competing financial interests or other interests influencing this work.

References

1. Liu, Y. Research on the urban-rural integration and rural revitalization in the new era in China. *Acta Geogr. Sin.* **2018**, *73*, 637–650.
2. Liu, Y. Introduction to land use and rural sustainability in China. *Land Use Pol.* **2018**, *74*, 1–4. [[CrossRef](#)]
3. Liu, Y. Research on the geography of rural revitalization in the new era. *Geogr. Res.* **2019**, *38*, 461–466.
4. Long, H.L.; Qu, Y. Land use transitions and land management: A mutual feedback perspective. *Land Use Pol.* **2018**, *74*, 111–120. [[CrossRef](#)]
5. Chen, M.; Liu, W.; Lu, D. Challenges and the way forward in China’s new-type urbanization. *Land Use Pol.* **2016**, *55*, 334–339. [[CrossRef](#)]
6. Chen, M.; Ye, C.; Lu, D.; Sui, Y.; Guo, S. Cognition and construction of the theoretical connotations of new urbanization with Chinese characteristics. *J. Geogr. Sci.* **2019**, *29*, 1681–1698. [[CrossRef](#)]
7. Ye, C.; Gao, Y. Evolving Relationship between Rural Development and Urbanization in China since 1949. *Econ. Geogr.* **2019**, *39*, 139–145.
8. Chen, M.; Gong, Y.; Lu, D.; Ye, C. Build a people-oriented urbanization: China’s new-type urbanization dream and Anhui model. *Land Use Pol.* **2019**, *80*, 1–9. [[CrossRef](#)]
9. Ye, C.; Liu, Z. Rural-urban co-governance: Multi-scale practice. *Sci. Bull.* **2020**, *65*, 778–780. [[CrossRef](#)]
10. Smith, A. *An Inquiry into the Nature and Causes of the Wealth of Nations*; Random House Press: New York, NY, USA, 1985.

11. Von Thünen, J.H. *Isolated State: A Chinese Edition of Der isolierte Staat*; The Commercial Press: Beijing, China, 1986. (In Chinese)
12. Glacken, C.J. *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*; University of California Press: Berkeley, CA, USA, 1967.
13. Parker, G. *A Chinese Edition of Sovereign City: The City-State Ancient and Modern*; Shandong Pictorial Publishing House: Jinan, China, 2007. (In Chinese)
14. Plato. *A Chinese Edition of Politeia*; The Commercial Press: Beijing, China, 1986. (In Chinese)
15. More, S.T. *A Chinese Edition of Utopia*; The Commercial Press: Beijing, China, 1982. (In Chinese)
16. Howard, E. *Garden Cities of Tomorrow*; Faber: London, UK, 1946.
17. Geddes, P. *Cities in Evolution: An Introduction to the Town Planning Movement and to the Study of Civics*; Williams: London, UK, 1915.
18. Saarinen, E. *The City. Its Growth. Its Decay. Its Future*; Reinhold Publishing Corporation: New York, NY, USA, 1943.
19. Mumford, L. *The city in history: Its origins, its transformations, and its prospects*; Houghton Mifflin Harcourt: New York, NY, USA, 1961.
20. Lewis, W.A. *Theory of Economic Growth*; Routledge: Abingdon, UK, 2013.
21. Liu, C.L. On Lu Zuo-fu's "rural modernization" construction model. *Chongqing Soc. Sci.* **2004**, *1*, 110–115. (In Chinese)
22. Todaro, M.P. *Economic Development in the Third World: An Introduction to Problems and Policies in a Global Perspective*; Pearson Education: London, UK, 1977.
23. Friedmann, J. *Regional Development Policy: A Case Study of Venezuela*; The MIT Press: Cambridge, MA, USA, 1966.
24. Lipton, M. *Why Poor People Stay Poor: A Study of Urban Bias in World Development*; Australian National University Press: Canberra, Australia, 1977.
25. Krueger, A.O. *Economic Policy Reform in Developing Countries*; Basil Blackwell: Oxford, UK, 1992.
26. Preston, D.A. Rural-urban and inter-settlement interaction: Theory and analytical structure. *Area* **1975**, *7*, 171–174.
27. Potter, R.; Unwin, T. *The Geography of Urban-Rural Interaction in Developing Countries*; Routledge: London, UK, 1989.
28. Venables, A.J. Equilibrium locations of vertically linked industries. *Int. Econ. Rev.* **1996**, *37*, 341–359. [[CrossRef](#)]
29. Poncet, S. A fragmented China: Measure and determinants of Chinese domestic market disintegration. *Rev. Int. Econ.* **2005**, *13*, 409–430. [[CrossRef](#)]
30. McKinney, M.L. Urbanization, biodiversity, and conservation. *Bioscience* **2002**, *52*, 883–890. [[CrossRef](#)]
31. McGee, T.G.; Robinson, I.M. *The Mega-Urban Regions of Southeast Asia*; University of British Columbia: Vancouver, BC, Canada, 1989.
32. Douglass, M. A regional network strategy for reciprocal rural-urban linkages—An agenda for policy research with reference to Indonesia. *Third World Plan. Rev.* **1998**, *20*, 1–33. [[CrossRef](#)]
33. Redfield, R. *The Little Community: Viewpoints for the Study of a Human Whole*; University of Chicago Press: Chicago, IL, USA, 1955.
34. Dewey, R. The rural-urban continuum: Real but relatively unimportant. *Am. J. Sociol.* **1960**, *66*, 60–66. [[CrossRef](#)]
35. Tacoli, C. Rural-urban interactions: A guide to the literature. *Environ. Urban.* **1998**, *10*, 147–166. [[CrossRef](#)]
36. Bell, M.M. The Fruit of Difference: The Rural-Urban Continuum as a System of Identity. *Rural Sociol.* **1992**, *57*, 65–82. [[CrossRef](#)]
37. Lynch, K. Rural-urban interaction in the developing world. In Proceedings of the Emerging Issues Along Urban/Rural Interfaces: Linking Science & Society Conference, Atlanta, GA, USA, 13–16 March 2005; 2005.
38. Brenner, N. *Critique of Urbanization: Selected Essays*; Birkhauser: Basel, Germany, 2016.
39. Brenner, N. The Hinterland, Urbanized? *Archit. Des.* **2016**, *86*, 118–127.
40. Brenner, N. *New Urban Spaces: Urban Theory and the Scale Question*; Oxford University Press: New York, NY, USA, 2019.
41. Schlosser, F. *Laendliche Entwicklung im Wandel der Zeit—Zielsetzungen und Wirkungen*; TUM: Munich, Germany, 1999; pp. 184–187.
42. Zheng, G.; Ye, Y.M. The Stage of Chinese Urban-Rural Relation and its Development Model. *J. Renmin Univ. China.* **2009**, *23*, 87–92. (In Chinese)
43. Chen, G.S.; Li, G. From dual opposition of urban-rural to integrated governance: Changes and enlightenment of urban and rural governance model in developed countries. *Southeast Acad. Res.* **2007**, *2007*, 62–68.
44. Marsden, T. Rural geography trend report: The social and political bases of rural restructuring. *Prog. Hum. Geogr.* **1996**, *20*, 246–258. [[CrossRef](#)]
45. Marsden, T.; Lowe, P.; Whatmore, S. *Rural Restructuring: Global Processes and their Responses*; David Fulton Publishers Ltd.: London, UK, 1990.
46. Wilson, J. The urbanization of the countryside: Depoliticization and the production of space in Chiapas. *Lat. Am. Perspect.* **2013**, *40*, 218–236. [[CrossRef](#)]
47. Long, H.L.; Li, Y.R.; Liu, Y.S.; Woods, M.; Zou, J. Accelerated restructuring in rural China fueled by 'increasing vs. decreasing balance' land-use policy for dealing with hollowed villages. *Land Use Pol.* **2012**, *29*, 11–22. [[CrossRef](#)]
48. Nonaka, A.; Ono, H. Revitalization of Rural Economies through the Restructuring the Self-sufficient Realm—Growth in Small-scale Rapeseed Production in Japan. *JARQ Jap. Agric. Res. Q.* **2015**, *49*, 383–390.
49. Zhang, Y.; Li, X.; Song, W.; Thai, L. Land abandonment under rural restructuring in China explained from a cost-benefit perspective. *J. Rural Stud.* **2016**, *47*, 524–532. [[CrossRef](#)]
50. Tu, S.; Long, H. Rural restructuring in China: Theory, approaches and research prospect. *J. Geogr. Sci.* **2017**, *27*, 1169–1184. [[CrossRef](#)]
51. Whatmore, S. Sustainable rural geographies? *Prog. Hum. Geogr.* **1993**, *17*, 538–547. [[CrossRef](#)]

52. Liu, Y.; Li, Y. Revitalize the world's countryside. *Nature* **2017**, *548*, 275–277. [[CrossRef](#)] [[PubMed](#)]
53. Woods, M. *Rural Geography: Processes, Responses and Experiences in Rural Restructuring*; Sage: New York, NY, USA, 2004.
54. Woods, M. Rural geography: Blurring boundaries and making connections. *Prog. Hum. Geogr.* **2009**, *33*, 849–858. [[CrossRef](#)]
55. Woods, M. Performing rurality and practicing rural geography. *Prog. Hum. Geogr.* **2010**, *34*, 835–846. [[CrossRef](#)]
56. Chen, M.; Liang, L.; Wang, Z.; Zhang, W.; Yu, J.; Liang, Y. Geographical thoughts on the relationship between 'Beautiful China' and land spatial planning. *J. Geogr. Sci.* **2020**, *30*, 705–723. [[CrossRef](#)]
57. Johnson, T.G. Entrepreneurship and development finance—Keys to rural revitalization—Discussion. *Am. J. Agric. Econ.* **1989**, *71*, 1324–1326. [[CrossRef](#)]
58. Korsching, P. Multi community collaboration: An evolving rural revitalization strategy. *Rural Dev. News* **1992**, *16*, 1–2.
59. Greene, M.J. *Agriculture Diversification Initiatives: State Government Roles in Rural Revitalization*; Rural Economic Alternatives: Lexington, KY, USA, 1988.
60. Kawate, T. Rural revitalization and reform of rural organizations in contemporary rural Japan. *J. Rural Probl.* **2005**, *40*, 393–402. [[CrossRef](#)]
61. Carr, P.J.; Kefalas, M. Hollowing out the middle: The rural brain drain and what it means for America. *J. Rural Soc. Sci.* **2010**, *291*, 30–34.
62. Ayobami, O.; Ismail, H. Host's support for volunteerism: A pragmatic approach to rural revitalization. *Aust. J. Basic Appl. Sci.* **2013**, *7*, 260–272.
63. Ye, C. *The Theory and History on Chinese on China's Rural-Urban Relationship*; Southeast University Press: Nanjing, China, 2014. (In Chinese)
64. Zhang, B.F. Comparison and reference of three rural construction modes in the period of the republic of China. *Modern Econ. Res.* **2006**, *4*, 26–30. (In Chinese)
65. Li, W.S. A comparative study of rural construction thoughts of Yan Yang-chu and Liang Shu-ming. *Acad. Forum* **2004**, *3*, 129–132. (In Chinese)
66. Yang, J.W. Liang Shu-ming's rural construction experiment: Its main purpose and its value in contemporary China. *J. Shandong Univ. Philos. Soc. Sci.* **2006**, *5*, 126–133. (In Chinese)
67. Bai, Y.X. Urban-rural dual structure under the Chinese perspective: Its formation, expansion, and path. *Acad. Mon.* **2012**, *44*, 67–76. (In Chinese)
68. Wu, C.J. The New Development of Rural China. *BEVAS SOBEG.* **1997**, *1*, 101–105.
69. Gao, P.Y. *Comparative Study on Urbanization between China and Foreign Countries*; Nankai University Press: Tianjin, China, 2004. (In Chinese)
70. Zhang, W. Urban-rural coordinated development and planning. *City Plan. Rev.* **2005**, *29*, 79–83. (In Chinese)
71. Wang, J.X. *China Tomorrow: Towards Rural-Urban Integration*; Economic Press China: Beijing, China, 2005. (In Chinese)
72. Yu, A.T.W.; Wu, Y.; Zheng, B.; Zhang, X.; Shen, L. Identifying risk factors of urban-rural conflict in urbanization: A case of China. *Habitat Int.* **2014**, *44*, 177–185. [[CrossRef](#)]
73. Chen, J. Rapid urbanization in China: A real challenge to soil protection and food security. *Catena* **2007**, *69*, 1–15. [[CrossRef](#)]
74. Iredale, R.; Bilik, N.; Su, W.; Guo, F.; Hoy, C. *Contemporary Minority Migration, Education, and Ethnicity in China*; Edward Elgar: Cheltenham, UK, 2001.
75. Roberts, K.D. China's "tidal wave" of migrant labor: What can we learn from Mexican undocumented migration to the United States? *Int. Migr. Rev.* **1997**, *31*, 249–293. [[PubMed](#)]
76. Zhang, K.H.; Song, S.F. Rural-urban migration and urbanization in China: Evidence from time-series and cross-section analyses. *China Econ. Rev.* **2003**, *14*, 386–400. (In Chinese) [[CrossRef](#)]
77. Long, H.; Liu, Y.; Li, X.; Chen, Y. Building new countryside in China: A geographical perspective. *Land Use Pol.* **2010**, *27*, 457–470. [[CrossRef](#)]
78. Chen, M.; Liu, W.; Tao, X. Evolution and assessment on China's urbanization 1960-2010: Under-urbanization or over-urbanization? *Habitat Int.* **2013**, *38*, 25–33. [[CrossRef](#)]
79. National Bureau of Statistics. *China Statistical Yearbook 2018*. China Statistics Press: Beijing, China, 2018.
80. Chen, M.; Liu, W.; Lu, D.; Chen, H.; Ye, C. Progress of China's new-type urbanization construction since 2014: A preliminary assessment. *Cities* **2018**, *78*, 180–193. [[CrossRef](#)]
81. Chen, M.; Sui, Y.; Liu, W.; Liu, H.; Huang, Y. Urbanization patterns and poverty reduction: A new perspective to explore the countries along the Belt and Road. *Habitat Int.* **2019**, *84*, 1–14. [[CrossRef](#)]
82. Zhu, M. New era—Principal contradiction—Rural revitalization. *Economist* **2017**, *11*, 1. (In Chinese)
83. Luo, B.L. Formulate development ideas and implement the rural revitalization strategy. *South China J. Econ.* **2017**, *10*, 8–11. (In Chinese)
84. Cai, F. Rural urban income gap and critical point of institutional change. *Soc. Sci. China* **2003**, *5*, 93–111. (In Chinese) [[CrossRef](#)]
85. Li, M.; Shao, T.; Liu, S.Y. The international experience of urban-rural integration and its enlightenment to China. *Chin. Rural Econ.* **2014**, *6*, 83–96. (In Chinese)
86. Liu, S.Y. "Rural-urban China" is shifting from one-way urbanization to rural-urban interaction. *Rural Work Bull.* **2017**, *10*, 42. (In Chinese)

87. Fan, J.; Guo, R. Re-recognition of precondition and driving mechanism of new-type urbanization. *Geogr. Res.* **2019**, *38*, 3–12. (In Chinese)
88. Hong, Y.X.; Chen, W. Urbanization and integrating of urban and rural area. *Econ. Theory Bus. Manag.* **2003**, *4*, 28–31. (in Chinese).
89. Friedmann, J. Four theses in the study of China's urbanization. *Int. J. Urban Reg. Res.* **2006**, *30*, 440–451. [[CrossRef](#)]
90. Ye, C.; Ma, X.; Cai, Y.; Gao, F. The countryside under multiple high-tension lines: A perspective on the rural construction of Heping Village, Shanghai. *J. Rural Stud.* **2018**, *62*, 53–61. [[CrossRef](#)]
91. Liu, Y.; Fang, F.; Li, Y. Key issues of land use in China and implications for policy making. *Land Use Pol.* **2014**, *40*, 6–12. [[CrossRef](#)]
92. Liu, Y.; Yang, R.; Long, H.; Gao, J.; Wang, J. Implications of land-use change in rural China: A case study of Yucheng, Shandong province. *Land Use Pol.* **2014**, *40*, 111–118. [[CrossRef](#)]
93. Long, H.; Zhang, Y.; Tu, S. Land consolidation and rural vitalization. *Acta Geogr. Sin.* **2018**, *73*, 1837–1849.
94. Long, H.; Ge, D.; Wang, J. Progress and prospects of the coupling research on land use transitions and rural transformation development. *Acta Geogr. Sin.* **2019**, *74*, 2547–2559.
95. Lu, D.D.; Wang, Z.; Feng, Z.M. Academic debates on Hu Huanyong population line. *Geogr. Res.* **2016**, *35*, 805–824. (In Chinese)
96. Chen, M.; Gong, Y.; Li, Y.; Lu, D.; Zhang, H. Population distribution and urbanization on both sides of the Hu Huanyong Line: Answering the Premier's question. *J. Geogr. Sci.* **2016**, *26*, 1593–1610. [[CrossRef](#)]