

Land Management Reform for Sustainable Urbanization Development: The Case in China and Its Implications for Other Developing Countries

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Key words: Land management; Security of tenure; Spatial planning; Urban renewal; China

SUMMARY

The paper is aimed to elaborate the current challenges and opportunities faced by land management in China on the context of fast urbanization and industrialization. The issues such as control of unregulated excessive urban expansion, conservation of agricultural land, resettlement of landless farmers in land expropriation, protection of farmers' land rights, balanced rural and urban development have required a holistic and comprehensive reform in the current land management system in China in order to ensure sustainable urbanization development. A sound spatial planning system, new land policies to strengthen more economic and efficient use of land, rural renovation with land consolidation, full coverage of all property registration, diversified resettlement in land expropriation and fair and transparent land market could be future opportunities. Moreover, the paper will use the case in China to make further conclusion on how an appropriate setting of land management in developing countries will help improve economic growth and social weal and benefit for its people.

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1. The challenges for land use faced by China's urbanization.

Over the last three decades, China's urbanization has proceeded rapidly along with the accelerated process of industrialization. The so-called population urbanization rate, which refers to the proportion of urban population in total population, has been increased from 17.9% of the year 1978 to 53.7% of the year 2013, with an average annual increase of 1.02%. The rapid development of urbanization has pushed national economy in fast growth and promoted living standards of both urban and rural residents comprehensively. Although such great achievements have been made in China, there are still some prominent conflicts and problems existing in the development of urbanization.

1.1 Built-up land is still in rapid extension and being used inefficiently. The so-called land urbanization, which refers to the conversion from non-urban land to urban land, is much higher than the population urbanization, which refers to the conversion from no-urban population to urban population. Some cities have expanded so largely like an extended pan-cake, blindly seeking for wide roads, spacious squares, and new towns. The development zones and industrial parks cover too large areas and the population density of built-up area is comparatively low. From 2000 to 2011, China's urban built-up area grew 76.4%, much higher than the urban population growth rate of 50.5%. The speed of built-up land expansion in medium and small-sized cities during the 11th five-year plan period (2006-2010) is two times faster than the 10th five-year plan period (2001-2005). Affected by this, the per capita urban, industrial and mining land in the country has increased to 142 square meters from 130 square meters and the population density of urban area has decreased from 7700 down to 7,000 persons per square kilometer. So far, the underused urban land accounts for about 40% of the total urban land area. The expansion of built-up land in rural area is actually contradictory with the decrease of the rural population as there was a large amount of rural population migrating from rural to urban area from 2001 to 2010. It is in fact that the area of built-up land in rural area has increased over 2 million hectare instead of decreased. Constructions both in urban and rural areas have occupied a lot of high-quality agricultural land, which has posed great pressure on food security of the nation.

1.2 Urban land development intensity is comparatively high and the layout structure is not reasonable, which is incompatible with the resource and environment carrying capacity. In 2010, the development density of built-up land

was 3.76% in the country, but there were already 7 regions with city agglomeration where the development density exceeded 10%. Especially the density of the Yangtze River Delta and the Beijing-Tianjin-Hebei region was close to 20%. The structure of use of land for production, living and eco-environment was imbalanced and the proportion of industrial land use was relatively high. In the year 2010, the land used for industry accounted for 26% of the total existing urban land, and such ratio in some cities located in the region with more developed manufacturing industry like the Pearl River Delta and Yangtze River Delta has exceeded 40% or even 50% individually. Due to the excessive expansion of built-up land, over consumption of water resources and other reasons, some important natural and ecological areas have shrunk greatly, and the rivers, lakes, reed marsh regions, grassland and beaches have become less. Urban land development intensity exceeds the carrying capacity of resources and environment, which shows misfit of population and land in spatial arrangement. Therefore, to give more emphasis on people rather than land development is one of the main goals of the new urbanization programme.

1.3 The urban-rural dual structure of land management system hinders the integration of urban and rural development. China's urban and rural land differs on rights settings and management system such as acquiring, using, profiting and disposing land, which forms urban-rural dual structure of land use and solidifies the formed imbalanced structure of urban and rural interests. With the development of urbanization, the current rural land system becomes more and more incompatible with the situation. The incomplete rural collective land rights, un-guaranteed usufructuary right, restricted rights like transfer and mortgage etc., have impeded the value realization of rural land asset, and influenced farmers' equal participation in the process of modernization and share of the benefits of urban modernization. The inconsistent laws and policies regarding whether farmers drop land rights when they become urban dwellers and unclear equity expectations, on one hand intensify the idle and inefficient use of rural land, on the other hand also restrict the rural population being converted to urban population. The tension of urban and rural land supply and demand further compresses the solving channel for residential land demand of rural additional population, which leads to difficulties for farmers to build houses, aggravates farmers' burden and causes multiple illegal land uses.

2. The new-type urbanization should be the urbanization with the harmony between people and land.

In the beginning of 2014, China released *National New-Type Urbanization Plan (2014-2020)*. In view of the situation of large population, relative shortage of resource, fragile ecological environment and unbalanced development between urban and rural areas, the Plan emphasizes on comprehensively improving urbanization quality, accelerating transformation of urbanization development mode.

2.1 To orderly promote population urbanization. It is planned to achieve the goal of around 100 million newly added urban people by transferring people from agricultural sector to urban towns together with other resident population settled in the urban towns by the year of 2020. The Plan also makes deployment scheme on

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promoting household registration system reform and equalization of basic public services and establishing a promoting mechanism for population urbanization etc. Thus, the focus of promoting the new-type urbanization is citizenization (being citizens) of original rural population, especially let rural migrant farmers become registered urban population, narrow the gap between officially registered urban population and the population actually living in urban towns permanently. The renovation of shanty towns and urban-villages is based on this connotation and it is an intensive and efficient urbanization mode. This is obviously different from the past concept of ‘land urbanization’ that some places frequently construct new towns or districts and expand built-up land area excessively.

2.2 To optimize the layout and pattern of urbanization. It is aimed to develop a scientific and rational overall urbanization layout in line with carrying capacity of resource and environment, and enhance the competitiveness of urban agglomeration regions for economic growth and population capacity. The scale and structure of the cities should be improved and the radiation function of central cities should be enhanced. The number of small and medium-sized cities will increase and service function of small towns will be strengthened. This follows the guiding principle of ‘development is based on pointed places and protection is based on the region’ and ‘development is in agglomerated pattern and resources use is in intensive pattern’, which is not only good for agglomerated cities to hold bigger population capacity and larger economic scale, but also good for protecting land resources and promoting economic growth in line with population, resource and environment.

2.3 To vigorously promote intensive and conservative land use. The intensive and compact development model with high density, mixed uses and public-transportation-driven has become most dominant, and will lead the population density of urban built-up area gradually increased. The *Plan* requires that all the cities should strictly control the scale of urban built-up land, properly control urban expansion boundary, optimize city inner space structure, promote city compact development, and increase the efficiency of use of land and resources. According to the principle of controlling the total scale of built-up land, strictly regulating its incremental scale, and better using the exiting built-up land, it is necessary to innovate land management system, optimize land utilization structure, improve land use efficiency, and properly meet land use demand for urbanization. This reflects the principle of putting land conservation as priority and broadening land supply and reducing land demand simultaneously, which will ensure a sustainable land supply for urbanization development

2.4 To establish a unified urban-rural built-up land market to ensure that farmers could share the land value-added income equally. The reform on land expropriation system is to be done, with the guiding ideas of narrowing the scale of land expropriation, regulating land expropriation procedure, building and improving a fair, well-regulated and diversified social security system for farmers involved in land expropriation. At the same time, the reform on rural collective-owned built-up land system is to be done, allowing such land to be transferred, leased and invested as

capital stock and enjoy same rights and price in land market with urban state-owned land. The reform on rural housing site management system is to be done, aiming to protect farmers' usufructuary right over their own housing sites. Several pilots will be carried out prudentially and steadily to allow farmers' house to be mortgaged, guaranteed and transferred, exploring the way to broaden the channel of farmers' property income. This will greatly release the potential of rural land as farmers' assets, promote the integration of urban and rural development, and gradually narrow the gap between urban and rural areas. This is also good for promoting equal exchange of resources elements between urban and rural and balanced allocation of public resources, which will lead to better layout, optimized structure and intensive use of urban and rural land. Finally, this is conducive to change **urban-rural dual structure** of land management system, protect property rights of state and rural collective owned land equally, accelerate empowerment of collective-owned land rights, and increase farmers' land property income.

3. The main tasks of land management on the context of the new-type urbanization in China.

According to the requirements of China's central government, the new urbanization construction should not only realize the smooth transfer of rural population into cities, but also improve the quality of urbanization. In order to achieve such a goal, improving land use planning, developing and utilizing land intensively is the necessary choice.

3.1 To enhance the controlling and regulating function of land use plans. The *Plan* is a high-level and macro plan, integrating and coordinating the systems of relevant sections and guiding policy innovations. The implementation of the *Plan* should be guaranteed by land use plans at various levels. The land use plans should strictly control the expansion of new towns and new development zones, and veto such development unconfordable with the total built-up land scale and layout formulated in land use plans and prohibit the change of defined prime farmland without permission. Revision and amendment of land use plan are required by the new-type of urbanization to make the plans more reasonable and stringent. The revised land use plans must strictly control urban built-up land scale. In the case that expansion is needed, the plan should be revised by considering the urban town layout following the connected line pattern, group pattern or satellite pattern and the encroachment of high-quality farmland should be avoided. Meanwhile, the annual land use quota system should be improved according to regional development strategies and the pace of population urbanization. In order to support urbanization of less developed areas, the more annual land use quota will be allocated to central and western region of China and relatively less to eastern region. The quota of land use for industry will be reduced and the quota for living and infrastructure will be safeguarded. For the sake of implementing the plan effectively and controlling the scale of urban built-up land reasonably, China is strengthening the role of land use planning by delineating the boundary of urban expansion, the boundary of permanent prime farmland protection areas and the boundary of ecological conservation red-line

zones . By delineating city expansion boundary, the disordered urban sprawl will be under control effectively, which will force more intensive use of land and raising the efficiency of urban development. By delineating the boundary of permanent prime farmland protection areas, the total area of prime cultivated land and actual farmland will be maintained stably, which will enable successful implementation of the most stringent cultivated land protection system. By delineating the boundary of ecological conservation red-line zones, the total volume of ecological land will be guaranteed as ‘only increased and not decreased’, which will safeguard the baseline for eco-security and come up with a sound spatial layout for production, living and eco-environment.

3.2 To vigorously promote conservative and intensive use of land. The new-type urbanization has highlighted the importance of conservative and intensive use of land. The relevant link management should be enhanced comprehensively, following the principle of controlling the total scale of built-up land, strictly regulating its incremental scale, and better using the exiting built-up land. The review and approval of urban land use will be more stringent and stricter. It will ensure the per capita built-up land in cities lower than 100 square meters. The cities with total population between 1 million to 3 million will be allowed to increase urban built-up land scale moderately. The cities with total population between 3 million to 5 million will be strictly controlled in terms of the total scale of urban built-up land. The cities with total population more than 5 million won’t be allowed to increase urban built-up land scale in principle except land used for living and public infrastructures. The policy of land supply and land use will be implemented with combination of providing newly-added built-up land on the one hand and making full use of existing built-up land on the other hand. This will greatly increase the proportion of using existing built-up land for urban construction. The conservative and intensive land use mechanism should be improved by setting up a comprehensive land use norm system for different uses of built-up land and raising the volume fraction and the threshold of land output rate of industrial projects.

3.3 To further strictly protect cultivated land. Protection of cultivated land is regarded as a primary task of land management and the most stringent cultivated land protection system is practiced vigorously in China, which has ensured development of urbanization in a solid and healthy way. Regarding the strategic goal, the central government decides to protect cultivated land with the strictest measures, which means to maintain certain subsistence farmland to feed the nation’s population, and ensure the total area and quality of cultivated land not decreased. Regarding the principle of land management, cultivated land’s quantity and quality must be protected equally. Regarding the major tasks, it is compulsory for local governments to strictly delineate and consistently protect prime farmland based on the legally approved land use plans. Regarding the institutional building, more strict measures will be taken to implement land use regulation system, improve the compensation system of cultivated land, and establish both incentive and restriction mechanism for cultivated land protection in the round.

4. Implications of China's urbanization and land use planning for developing countries

According to the UN's prediction, the urbanization in developed countries and regions will be increased by 1.2 times from 1990 to 2030, and meanwhile developing countries will increase 2.9 times. Many developing countries encountered great challenges for guiding the healthy development of urbanization through rational and effective government intervention, and they are facing similar problems with China concerning the urban management and land use planning. Therefore, China's rapid urbanization in last 30 years maybe provides some beneficial enlightenment for other developing countries.

4.1 To establish the land use planning system. The main task of land use planning is to provide reasonable arrangements of land development, reclamation and protection, which is an important tool for coordinating economic development, resource development and environment protection. Land use planning can be developed separately as needed at different levels of national, regional, etc. The main task of land use planning at the national level is to provide a comprehensive deployment outline for national economic and social development, natural resource conservation, environmental protection, urban and rural development, and infrastructure construction, which is based on the overall carrying capacity of resources and environment. The main task of land use planning at the local level is to the implementation of land use control objectives, to make arrangements for the development of various types of land use according to its upper land use planning, promote regional economic and social sustainable development, and maintain good natural landscape and environment,

4.2 To efficiently use of urban land. Promoting urbanization in developing countries is still an arduous task, and will inevitably occupy valuable farmland including arable land, woodland, wetlands. Therefore, in the urbanization process, we should always put conservation and intensive land use as an important principle. From the perspective of economic development, conservation and intensive use of land is conducive to save infrastructure investment, gather urban population more efficiently, and promote the development of service sector. In order to achieve such a goal, on the one hand ,we need to make full use of land use planning for control the layout of urban development, industrial development, ecological protection; on the other hand, we need make full use of financial policies, taxation and other means to guide enterprises in real estate development, urban facilities development, industrial development.

4.3 To avoid widening gap between urban and rural areas. Urban-rural integration is the inevitable trend of development of human society, and is also the concrete manifestation of the extent of human civilization. In the urbanization process, a large number of farmers will lose their land ownership or land use rights because of urban development, so land management should focus on long-term living conditions of those farmers, and try every means to avoid these people impoverishment. During the development and utilization of land, it is necessary to provide help for those farmers,

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such as providing jobs by enterprises, vocational education and training opportunities by local governments. Meanwhile, for areas planned as villages or farmland, local governments should provide financial support for agricultural development, village infrastructure improvements, which are helpful for equalization of urban and rural public services, and also helpful for preventing social problems due to widening gap between urban and rural areas.

5. Conclusion

Since 1978, China's urbanization has been experiencing a rapid development period with the growth of economy. At the same time, China's urbanization has gradually accumulated some problems, such as urban construction taking up a large amount of agricultural land, great obstacles for those rural populations transferring to the cities, etc. Now, China is making corresponding reform and adjustment of land management, such as further enhancing the control ability of land use planning, vigorously improving the efficiency of urban land use, strictly protecting arable land resources, etc. Urbanization in the developing world will continue for quite a long time, thus coordinating urban and rural land use will be an important issue over a long period of time. Many developing countries are facing similar situation with China, so China's rapid urbanization experiences, especially those experiences in land use planning, can provide some beneficial enlightenment for other developing countries, which include measures of formulating effective land use planning system, continuously improving the efficiency of urban land use, good coordination of rural and urban development, etc.

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BIOGRAPHICAL NOTES

Mrs. Rosy Liao Rong, obtained Master Degree of Land Management in Renmin University of China and Bachelor Degree of Geo-Engineering in China Geo-Science University. She is now working for China Land Surveying and Planning Institute whose responsibility is to provide technological support and policy advice for the land administrative departments of the government. Currently, she is leading international

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cooperative research in the institute, enabling her to have diversified knowledge about land administration home and abroad. She used to be involved in the projects regarding land consolidation and rural development with the Netherlands, Belgium and Germany; the projects regarding cadastral management and land registration with Sweden, Australia and Germany, the projects regarding rural land policy reform in China with UNDP, the project regarding biodiversity in land consolidation and land use planning with EU and the projects regarding land use planning with Canada, the US and Lesotho.

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