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# Paths for Increasing Effective Input to Urban Agriculture

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**Abstract** The problem of insufficient agricultural input has been restricting China's agricultural development. When the expansion of the use of capital has become a bottleneck restricting the agricultural development, the effective use of agricultural input resources will become an important way to increase agricultural input. Through building the value chain of interactive development between urban agriculture and other industries, it is expected to promote the reasonable allocation of resources, realize the conservation of resources and increase the efficiency of resource utilization, and promote the urban agricultural input to become an effective input. In this way, it can realize the transformation of agricultural development and the innovation of financing method of urban agriculture.

**Key words** Urban agriculture, Effective input, Path

## 1 Introduction

The problem of insufficient agricultural input has been a bottleneck of agricultural development in China. At present, China is gradually promoting multi-channel, multi-level and diversified agricultural investment and financing system with government financial investment as the guide, enterprise and farmer input as subjects, credit input as drive, and foreign capital investment as supplement. However, promotion of this investment and financing system is restricted by such factors as financial ability of government, market operating mechanism, agricultural development situations, operating principles of commercial banks, as well as perfection of relevant policies, laws and regulations. When expansion of capital utilization becomes a bottleneck of China's agricultural development, the effective utilization of agricultural input resources will become an important approach to increasing agricultural input. The urban agriculture is interdependent, complementary and interactive with other industries. Through building the value chain of interactive development between urban agriculture and other industries, it is expected to promote the reasonable allocation of resources, realize the conservation of resources and increase the efficiency of resource utilization, promote the urban agricultural input to become an effective input, increase effective agricultural input, and realize innovation of financing methods of urban agriculture.

## 2 Feasibility of using the value chain management concept to increase effective input to urban agriculture

According to the value chain theory developed by Michael Porter, value creation is a dynamic process of creating value that consists of a series of mutually different but interrelated production and business activities. According to opinions of Marx, economic

growth methods can be divided into extended expanded reproduction and connotative expanded reproduction. The extended expanded reproduction is mainly to realize expansion of production through increasing production elements and accordingly realize economic growth, while the connotative expanded reproduction is mainly to increase the utilization benefits of production elements through technological progress and scientific management. Applying the value chain management concept to urban agriculture reflects the idea of promoting the economic growth through connotative expanded reproduction. From the perspective of value adding, it is expected to build the value chain between urban agriculture and other industries, to expand resource management from industry inside to industry outside with the aid of advantages of resource sharing of the value chain. In this situation, the application of the value chain management idea can be taken as a path for increasing effective input to the urban agriculture. At present, using the value chain management idea to increase effective input to the urban agriculture has following positive effects.

Firstly, using the value chain management idea to increase effective input to the urban agriculture conforms to the requirement of the Fifth Plenum of the 17th CPC Central Committee which takes accelerating the transformation of economic mode as the great mission in the 12th Five-Year Plan period. Applying value chain management idea to the development of urban agriculture can give full play to the fundamental role of market in the allocation of resources, build the value chain between urban agriculture and other industries, and build competitive advantage of urban countryside through the interactive development of value activities in the value chain, and realize the market-oriented allocation of production elements of urban countryside. Secondly, using the value chain management idea to increase effective input to the urban agriculture conforms to the requirements of the Fifth Plenum of the 17th CPC Central Committee that takes accelerating the transformation of economic growth mode and improving comprehensiveness, coordination and sustainability of economic and social development as main tasks. Besides, using the value chain management idea to

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increase effective input to the urban agriculture can take full use of advantages of other industries to extend towards the urban agriculture, and make full use of support and promotion of other industries for urban agriculture. From the perspective of value adding, it is feasible to integrate resources in the value chain, so that the scope of resource management can be expanded from the industry inside to the industry outside, to achieve the reasonable allocation of resources, and get rid of waste of resources resulted from the extensive economic growth mode. Through the interactive development of activities in the value chain, it is feasible to create greater synergies and higher value. Thirdly, using the value chain management idea to external development of the urban agriculture can expand the development space of urban countryside industries and services through building the value chain of urban agriculture with other industries. This is not only favorable for expanding the capacity of employment within the urban agriculture, reducing costs for transferring rural residents to urban areas, but also favorable for increasing income of rural residents and strengthening the promotion of rural consumption for economic growth. In sum, it is feasible for using the value chain management concept to increase effective input to urban agriculture.

### **3 Ideas of using the value chain management concept to increase effective input to urban agriculture**

#### **3.1 Studying economy and geography of urban countryside**

The geographical distribution of agricultural economic activities depends not only on the distribution of the natural environment, but also on the agglomeration and pervasion of the economy itself. There are various factors that affect the agglomeration and pervasion of the economy itself. Regional distribution of agricultural economic activity reflects its historical, social, economic, cultural, and institutional endowment. Besides, economic activities of human beings also can change the original natural environment. Studying the economy and geography of urban countryside is to understand regional distribution of agricultural economic activities from the perspective of society, economy, and ecology, to coordinate the relationship between agricultural economic activities and natural environment, coordinate the relationship between agriculture and other industries, make the productivity adapt to relations of production, integrate economic and social development, get rid of the development concept of simply pursuing economic growth, and realize sustainable development of urban agricultural economy. Studying the economy and geography of urban countryside should focus on the use of urban land and should put the study of natural environment in the first place. On this basis, studying regional endowment, generation conditions and development changes of urban agricultural production should demonstrate economic value of natural resources from the perspective of society, economy, and ecology, make scientific planning for regional distribution of urban agricultural economic activities and regional mode of rural economic development.

#### **3.2 Comparative advantages of regions of urban countryside**

Economic geography of regions of urban countryside determines respective endowment and makes urban countryside show regional differences in resource advantages, regional distribution and functional advantages. Through analyzing and determining resource advantages of regions of urban countryside, it is expected to take full use of resource endowment of regions of urban countryside, change characteristic superior resources to characteristic superior agriculture, promote adjustment of urban agricultural structure, and promote coordinated development of regional economy. Urban countryside is close to the city and has excellent development foundation and development potential relying on science and technology, capital, talent, transportation, information advantages. With the rapid development of industrialization and urbanization, the functional positioning of urban agriculture is showing new requirements. Urban countryside should make in-depth agricultural adjustment, raise the level of industrial structure, and constantly raise the integrated agricultural production capacity according to resource conditions, basic conditions, location advantages and other factors. Different element endowment brings about regional difference in development advantages of urban countryside. It is recommended to analyze and determine the comparative advantages of regions of urban countryside, determine development advantages of regions of urban countryside with resource advantages, location advantages, and functional advantages as the comparative basis, implement unbalanced urban countryside development strategy, give full play to the comparative advantages of comparative advantages of regions of urban countryside, develop superior economy with high income, huge market potential, and competitiveness in accordance with local actual situations, to make urban agricultural economy form scientific and reasonable regional distribution and professional division of labor.

#### **3.3 Building the value chain between urban agriculture and other industries**

##### **3.3.1 Exploring the value adding sections within the urban agriculture.**

Urban agriculture is usually small. Thus, it is required to take high efficient recycling of resources as cutting point of value adding and seek value adding sections in strategy. According to comparative advantages of regions of urban countryside, it is proposed to find out its potential of superior resources, vitalize its superior resources, take full advantage of endowed resources, turn characteristic superior resources into special superior agriculture, implement regional, specialized and appropriately large-scale operation, promote adjustment of agricultural structure, and promote optimum distribution of urban agricultural resources. Along with the rapid development of industrialization and urbanization, market imposes new requirements on functional orientation of urban agriculture, which will provide broader value adding space for urban agriculture. Through evaluating element endowment, it is recommended to adjust agricultural structure, and develop agricultural economy with certain advantages, high scientific and technological contents, and high added-value, such as seed sowing agriculture, green agriculture, sightseeing agriculture, fine agriculture, and export and foreign exchange earning oriented agriculture, and

facility agriculture, to expand urban modern agriculture with new functions. When exploring value adding section in the urban agriculture, it is also required to pay special attention to the impact of urban agriculture's own development on other economic, social and environmental aspects. Therefore, when seeking the path for adding the value of urban agriculture, it is required to manifest the unity between economic benefits, ecological benefits, and social benefits. Through exploring the value adding section within the urban agriculture, it is expected to link it into the urban industrial value chain with value orientation, and to optimize the urban agriculture structure by relying on the advantages of the city in science and technology, capital, talent, transportation, information and market, to promote the refinement of division of labor for urban agriculture, concentrate the limited resources on the superior sections of value adding, enhance the professional advantages and core competitiveness of urban agriculture, and thus enable urban agriculture to realize rapid upgrading of urban agriculture at low cost, save resources and increase resource utilization efficiency.

**3.3.2 Building the value chain between urban agriculture and other industries.** The urban agriculture is interdependent, complementary and interactive with other industries. Urban agriculture provides agricultural products for other industries as means of production and means of subsistence, while expansion of value-adding space for urban agriculture depends on higher value system that is connected with upstream and downstream industries, and relies on support and drive of other strong industries. This is also the fundamental approach for transforming urban agriculture from traditional agriculture to modern agriculture. According to current productivity of urban countryside, it needs relying on advantages of cities in science, technology, funds, talents, traffic, information and market for developing the efficient use and circular economy of agricultural resources, developing the precision agriculture characterized by low consumption, high efficiency, high quality, and environmental protection, also relying on the value chain between urban agriculture and other industries, to link the urban agriculture into the value chain of urban industries, and deepen the coordination relationship between urban agriculture and other industries using advantages of value chain sharing resources. The value chain of urban agriculture links with other industries mainly through establishing various strategic alliances. Through the establishment of equity investment or strategic alliance, it is expected to realize connection of urban agriculture with other industries relying on the support and promotion of other strong industries in the value chain for urban agriculture, expand the space of value adding of urban agriculture, promote the adjustment of urban agricultural industry structure, and promote the refinement of division of labor for urban agriculture. When building the value chain between urban agriculture and other industries with the value orientation, it is recommended to strategically identify and explore cutting point for realizing value adding of urban agriculture in industrial value chain, grasp strategic sections of value adding in research and development, production, process and marketing of ag-

ricultural products, concentrate resources to cultivate competitive edges, extend the value chain of urban agriculture to other industries through the equity investment or establishing strategic alliance, take use of the value chain to cooperate with other industries, expand the scope of resource deployment from urban agriculture inside to other industries, and realize resource sharing of urban agriculture and other industries, so as to maximally utilize the resources in the value chain, realize conservation of urban agricultural resources and increase the resource utilization efficiency, and realize effective agricultural input.

**3.3.3 Coordinating the relationship between the value chain and external support system.** Firstly, the building of value chain for urban agriculture and other industries needs support of government and related departments. In the action of market mechanism, strategic elements such as technology, funds and talents will flow to strong industries. In this way, when building the value chain between urban agriculture and other industries with the value orientation, government and other related departments should formulate and implement appropriate preferential policies and encourage urban secondary and tertiary industries to connect with urban agriculture. When building the value chain between urban agriculture and other industries with the value orientation, it may result in rate strategic elements of urban agriculture and consequently bring adverse effects to urban agriculture. Secondly, government and related departments should work out appropriate policies and measures to energetically develop rural service industry. Developed rural service industry can build a bridge for strategic elements flowing to the urban agriculture and set up a platform for attracting strategic elements to the urban agriculture. It also can make the flow process of strategic elements more smoothly to ensure value adding of strategic elements in the flow and transfer process. From the perspective of integrating urban and rural areas, when making overall urban development plan, government and related departments should include the urban agricultural development into the overall urban development, to realize sustainable development of urban agriculture. It is recommended to connect urban secondary and tertiary industries with value orientation, connect urban agricultural development with overall spatial distribution, expand the cooperation space of urban agriculture and other industries, promote expansion and extension of value chain between urban agriculture and other industries, and promote the interactive development of urban agriculture and other industries. In addition, government and other related departments should formulate more support policies and measures, strengthen training of master of agricultural core technology, agricultural product quality and safety testing and agricultural market development and other aspects of skills, support the cooperation and development of relevant fields of various scientific research institutions, and establish a market-based transfer and dissemination mechanism for agricultural science and technology, and promote industrial upgrading of urban agriculture. Finally, the government and relevant departments should formulate appropriate policies and measures to guide and

The Fifth Plenum of the 17th CPC Central Committee took accelerating the transformation of economic growth mode and improving comprehensiveness, coordination and sustainability of economic and social development as main tasks, which are also internal requirement of the Outlook on Scientific Development. Through building the value chain of interactive development between urban agriculture and other industries, it is expected to promote the reasonable allocation of resources, realize the conservation of resources and increase the efficiency of resource utilization, and promote the urban agricultural input to become an effective input. In this way, it can realize the transformation of agricultural development and the innovation of financing method of urban agriculture.

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