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# Current Situations of Agricultural Sci-tech Innovation and Development Path in Nantong

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**Abstract** Nantong is a typical region of large population and little land. The conflict between resources and environment is growing. Thus, the improvement of independent innovation ability based on current situations, oriented towards the future and relying on scientific and technological force directly decides the effect of strong economic city construction. Through analysis on achievements of agricultural sci-tech innovation works, existing problems and demand for developing modern agriculture in Nantong, we present development ideas, target orientation and basic principles of agricultural sci-tech innovation works in Nantong, and put forward eight paths.

**Key words** Agricultural sci-tech innovation, Current situations, Target, Path

Since the Third Plenary Session of the Eleventh Party Central Committee of the Communist Party of China, Nantong has undergone three stages, "small production-related contracting", "big production-related contracting" and "agricultural enterprization"<sup>[1]</sup>. Corresponding to these, the agricultural sci-tech innovation and extension of Nantong also experienced three development stages. At the small production-related contracting stage, the agricultural sci-tech innovation is mainly focused on seed selection for new varieties of rice, wheat and cotton, as well as related cultivation and plant protection, and the extension was also limited to staple crops, such as rice, wheat and cotton. At the great production-related contracting stage, the marketization, commercialization, large-scale and industrialization characteristics of agriculture gradually appear; the subjects of agricultural sci-tech innovation and extension were still scientific research institutions and colleges and universities; innovation fields were gradually extended to those fields with higher benefits, such as gardening and animal husbandry; achievements of independent innovation are increasing. At the agricultural enterprization stage, agricultural leading enterprises grow out of nothing and expand from small to large; land is relatively concentrated; agricultural product processing receives higher attention; and there is much rural labor transfer. At this stage, with gradually strengthening of innovation ability of agricultural leading enterprises, they become subjects of agricultural sci-tech innovation together with scientific research institutions, and the cooperation mechanism of production, teaching and learning is further improved; construction of innovation platform, such as engineering technical center, key laboratory, is still in the ascendant; the key points of innovation are

changed to agricultural product processing, protected agriculture and bio-technical fields; the incentive mechanism for agricultural sci-tech innovation is gradually being improved.

## 1 Achievements of agricultural sci-tech innovation works in Nantong

In recent years, institutions, colleges and universities, extension organizations, and leading enterprises of agriculture-related scientific research in Nantong City are actively implementing the strategy of vitalizing agriculture through science and education, providing scientific and technological support for rural construction, building and developing new agricultural sci-tech innovation and extension system, and putting more efforts on extension of independent agricultural sci-tech innovation and advanced practical technologies.

**1.1 New sci-tech system of innovation is beginning to take shape** Through integrating various developing factors and optimizing allocation of various resources, on the basis of characteristics of agricultural sci-tech innovation in the new period and the demand for developing sci-tech leading pillar industries, as well as guiding and pushing forward technical innovation of enterprises, Nantong City has gradually established a new system of agricultural sci-tech innovation with scientific and technical research institutions as subjects and enterprises and agricultural colleges and universities as wings in the Eleventh-Five Year Plan period. In total, 13 agriculture-related provincial level engineering technical research centers, 29 city level engineering technical research centers, 2 key open laboratories, 1 provincial sci-tech service institution, and 2 provincial level and city level public service platforms have been constructed in Nantong.

**1.2 Agricultural sci-tech innovation team is basically formed** Through agricultural sci-tech plan and provincial "333 projects" and the cooperation of production, teaching and research, several excellent innovation talents spring up and a new open, mobile, competitive and cooperative mechanism is gradually established. The operational mode for scientific re-

Received: June 15, 2012 Accepted: August 20, 2012

Supported by Action Plan Project of Scientific and Technical Personnel of Ministry of Science and Technology for Serving Enterprises (2009GJC10025); Agricultural Sci-tech Innovation Project of Nantong City (HL2011010).

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search of "demand → subject selecting → research → evaluation → commercialization and industrialization of achievements → satisfying demand" has been extended, and agricultural sci-tech innovation subjects gradually gather to innovation subjects. In the Eleventh-Five Year Plan period, more experts in Nantong were awarded as State Council Expert for Special Allowance. In Jiangsu Province, there are more young scientist of outstanding achievements and young and middle-aged scientific and technological leaders.

**1.3 Agricultural sci-tech achievements are effectively transformed** Transformation, demonstration and extension of agricultural sci-tech achievements overturn the situation of dominance of agricultural technical extension departments, gradually forming a diverse agricultural technical extension system with participation of agricultural leading enterprises, agricultural scientific research institutions, agricultural educational institutions, agricultural industrialization operating organizations, farmers' professional cooperative organizations and intermediaries, which greatly promotes transformation of sci-tech achievements. Under the guidance and promotion of agricultural science and technology, the agriculture in Nantong has reached a new stage. Varieties of agricultural crops are being updated and transformed, achieving rate of fine varieties up to 93%; agricultural structure is being optimized, with the area of high efficient agriculture up to 191 300 hectare (accounting for 41.4% of agricultural area); the breeding amount of live pigs and poultry is up to 6.6 million and 150 million; income per capita of farmers has been growing and reached 8 696 yuan in 2009; leisure agriculture and ecological agriculture develop rapidly, which not only improved agricultural grad, but also improved ecological environment.

## 2 Major problems in agricultural sci-tech innovation of Nantong

**2.1 Agricultural sci-tech innovation environment is urgently to be improved** As an open production system, agriculture is weaker compared with other industries. Therefore, investment in agriculture not only has market risk, but also has natural risk. What's worse, along with advance of urbanization and industrialization, as well as rapid development of the secondary and tertiary industry, the contribution of agricultural output value to the GDP continues falling, and the direct contribution ratio becomes lower and lower. According to existing statistic results, the financial input in agricultural sci-tech research only takes up a small portion in agricultural GDP, lower than the international average level (1%). Less than 1/3 of the three funds for scientific and technological projects are used for agricultural science and technology. As a result, fundamental conditions of science and technology are not suitable for demand of innovation tasks in the new period.

**2.2 It lacks highly educated talents** Since people's awareness of importance of agriculture is weak and the scientific and technological input in agriculture is low, agricultural science and technology gradually lose appeal for talents. Besides, it lacks scientific and technological platform for gathering highly educated talents. The problem of shortage of highly educated personnel is prominent, serious shortage of higher level technical talents is more prominent.

**2.3 The independent agricultural sci-tech innovation ability is low** Some technical bottlenecks are difficult to remove, and the supporting and guiding functions of science and technology are not been fully played. There is serious shortage in the supply of key original innovation achievements and key technologies for industrial development. Except maize, varieties of some aquatic products, livestock products, gardening products and agricultural crops and important agricultural equipment still rely on import. The technologies in whole course of production (pre-production, production and post-production) are not adequately provided. In addition, it is severely short of technological achievements for increasing added value of agricultural products.

**2.4 Agricultural standard system is not perfect and backward** In China, there is still no standard system for the whole agricultural production process, including pre-production, production and post-production, and deep processing of agricultural products. The incomplete standard system gradually can not meet the requirements for development scale of modern agriculture, market circulation, product trading, and quality monitoring, as well as improving product quality. In addition, technical indicators are backward, especially, the problem of low indicator for quality and safety of agricultural products is outstanding; the technologies for quality control of the whole production process is not available; some agricultural product producers can't produce products in accordance with standards; manufacturers and farmers, driven by commercial benefits, seriously disturb the market order of agricultural products.

**2.5 The construction of marine sci-tech innovation system lags behind** On June 10, 2009, coastal development in Jiangsu Province was lifted to be state strategy, marking a new rapid development opportunity period for coastal development of Nantong City, which lays down higher requirements for great development of scientific and technological support. However, the current construction of marine sci-tech innovation system lags behind, there were no systematic sci-tech innovation organization and talent network, nor fixed policy and financial support channel.

## 3 Objective orientation of agricultural sci-tech innovation of Nantong City

### 3.1 Sci-tech demand of modern agriculture in Nantong City

**3.1.1 Guaranteeing effective supply of agricultural products.** Population growth, resource constraint, improvement of people's living standard and rural labor transfer set down higher requirements for agricultural production capacity, so the pressure on growth of agricultural product demand will exist for a long time. In addition, the trend of population growth, decrease of cultivated land and improvement of consumption level is also not reversible. Therefore, the paramount task is to improve agricultural production capacity and guarantee safe and effective supply of agricultural products. The sci-tech demand is mainly shown in: fine varieties and supporting cultivation technology system for main grain crops; fine varieties and supporting planting and breeding technology system that is favorable for increasing farmers' income; production technologies for famous, special and find agricultural products; fertility cultivation tech-

nologies for improving resource production capacity; reduction and prevention technologies of agricultural disaster; protected agriculture technologies; research and application of new and high technologies (such as biotechnology, information technology and modern engineering technology) in production of agricultural products.

**3.1.2** Raising added value and competitive power of agricultural products. Agricultural product processing in Nantong City is weak, processing technologies are backward and processing equipments are obsolete. Most agricultural products enter the market in the form of primary products, leading to low added value of agricultural products in Nantong City and influencing market competitive power and benefit of agricultural products. Nantong City focuses on solving the bottleneck on processing of special foods and agricultural byproducts and speeding up sci-tech progress of agricultural product processing, with the hope of large-scale production, standardization of technologies and modernization of equipment, to raise the comprehensive utilization ratio of resources and added value of agricultural products. Sci-tech demand is mainly manifested in: deep processing technologies for staple agricultural products that have large-scale advantages; processing and functional food developing technologies that have local characteristics; technologies for extracting biochemical composition from agricultural products; quality standard system and testing technologies for processing of nuisanceless (green and organic) grain, oil, meat, dairy, vegetable, fruit and aquatic products.

**3.1.3** Guaranteeing quality and safety of agricultural products. Quality safety of agricultural products concerns not only people's quality of life and health, but also production benefit of agricultural products and market competitive power. Sci-tech demand of this is mainly indicated in: exploring the bio-genetic potential and speeding up cultivation of new high quality, special-purpose and plant diseases and insect pests preventing varieties; monitoring and control technologies for production environment of agricultural products; testing technologies and equipment for quality safety of agricultural products; standardized production technology system for organic agricultural products; technologies for quality guaranteeing, fresh keeping and loss reduction of agricultural products.

**3.1.4** Guaranteeing safety of agriculture and rural ecology and production. At present, along with promotion of great coastal development and increase in significant marine projects, the ecological and environmental pollution of waters becomes more and more serious; living space of water living organisms is being occupied, which is easy to result in red tide and epidemic disease; recycling of agricultural resources lags behind, and capacity of harmlessly treating pollutants is low. Sci-tech demand is mainly shown in: resource-saving type agricultural technologies; technologies for saving and control of agricultural input; comprehensive utilization technologies for agricultural wastes; technologies for preventing, controlling and monitoring agricultural non-point pollution; agricultural circular economic technology such as clean production integrating technology; monitoring and commanding system for marine fishery safe production.

**3.1.5** New agricultural equipment. According to general requirement for development of modern agriculture and construction of new socialist countryside, it is proposed to raise the agri-

cultural labor productivity, speed up modernization of agricultural equipment and facilities, and focus on developing new advanced environment-friendly machines and tools. The sci-tech demand is mainly indicated in: technologies and equipment for returning fields and comprehensive utilization of rice and wheat straws; technologies and equipment for safe production of mud flat operation; comprehensive utilization equipment and technologies of renewable resources (solar energy, wind energy, etc.) that are suitably promoted in rural areas; microclimate conditioning machinery and automatic regulating and controlling equipment.

**3.1.6** Marine and seabeach resource developing technologies. It is proposed to improve comprehensive economic benefit of marine biological development and realize sustainable utilization of marine biological resources with the aid of comprehensive technologies for marine biological resource protection and development. Sci-tech demand is mainly reflected in: technologies for marine organism utilization and for development and production of functional foods; rapid transformation technologies for mud flat and saline and alkaline land; technologies for introduction and cultivation of high efficient saline-resisting plants; technologies for monitoring, early warning and restoration of marine ecological environment.

## **3.2 Development ideas and target orientation**

**3.2.1** Development ideas. At present, it is urgent to objectively analyze the status, level, advantages and disadvantages of agricultural sci-tech development in Nantong City in strict accordance with the target and task of developing modern agriculture and adhering to basic characteristics of modern agriculture. This includes innovation strategy, talent strategy, patent strategy, standard strategy and "go global" strategy and adjusting targets and tasks; developing and establishing modern agricultural sci-tech innovation system that has the characteristics of Nantong City; reviewing and arranging key development points of innovation and extension; optimizing allocation of various resources.

**3.2.2** Guiding ideology. It is proposed to push forward the sci-tech innovation and extension with the Scientific Outlook on Development as guidance and in line with guiding policy of "doing scientific researches oriented towards demand", build a batch of modern agricultural industrial parks and modern characteristic agricultural model bases that have large scale and high benefit with increasing farmers' income as center and market as guidance, expanding foreign exchange and cooperation and deepening internal operating mechanism reform, further strengthening materials and equipment, improving sci-tech level and industrial system.

**3.2.3** Target orientation. With five to eight years of unremitting effort, it is expected to lift the contribution rate of agricultural sci-tech progress to 60%, and the transformation rate of sci-tech achievements up to 70%, enhance the construction of intellectual property capabilities centered on new crop varieties and patent protection in line with working policy of "incentive innovation, effective application, lawful protection and scientific management", significantly improve superior agricultural products and strengthen competitive power, make considerable progress in allocation of agricultural sci-tech resources, establish and perfect the new agricultural sci-tech extension system that assumes operating service and public welfare functions, and

expand diverse agricultural sci-tech extension subjects, form a batch of sci-tech leading enterprises; generally improve farmers' sci-tech cultural quality; accelerate the transformation of traditional agriculture to modern agriculture. It is intended to reach the domestic advanced level in innovation ability, technical level, and the contribution to development of modern agriculture, so as to set up a model for building an innovative city in 10 to 15 years.

### 3.3 Basic principles

- (i) It should combine condition construction and mechanism innovation, strengthen construction of basic condition and talent team, innovate upon operating mechanism, and build perfect and efficient modern agricultural sci-tech innovation system, technical extension system and farmer training system.
- (ii) It should combine resource integration and function improvement, optimize allocation of sci-tech resources, correctly locate system functions, and establish a modern agricultural sci-tech innovation system, technical extension system and farmer training system with clear levels and perfect functions.
- (iii) It should combine overall planning and classified implementation, coordinate related departments, focus on key points, and implement plans by departments, phases and batches.

## 4 Path selection for strengthening agricultural sci-tech innovation of Nantong City

### 4.1 Improving system construction and setting up innovation platform

It is proposed to improve the new agricultural sci-tech innovation system with scientific and technical research institutions as subjects and enterprises and agricultural leading enterprises and colleges and universities as wings; strengthen the cooperation between sci-tech innovation platform, sci-tech service platform and sci-tech industrial platform, and enhance cooperation of production, teaching and research; lay stress on the construction of introduction, ingestion, and absorption of innovation abilities, and raise the utilization efficiency of sci-tech resources; reinforce the integrated innovation and closely combine independent innovation achievements with introduction, ingestion and absorption of innovation achievements, to solve major technical problems in industrial chain.

### 4.2 Formulating support policies for promoting agricultural sci-tech innovation

It is proposed to strengthen the policy support for agricultural sci-tech innovation, form the favorable innovation mechanism and atmosphere, promote the continued innovation of agricultural science and technology, and speed up the transformation of sci-tech achievements. It mainly includes following three aspects.

**4.2.1** Further strengthening policy guidance of intellectual property right. It is required to strengthen the sorting of existing policies and measures of the whole Nantong City and accelerate the implementation of policies and measures related to intellectual property right in strict accordance with the tasks of intellectual property right. In particular, the competent authorities of science and technology, economy, foreign trade, taxation, finance and intellectual property right should enhance research, coordination and adjustment of existing policies, stress sci-tech, economic, financial, trading and taxation policies, encourage invention and creation, cultivate independent intellectu-

al property right, and promote transformation of intellectual property right, to form policy guarantee system for implementation of intellectual property right strategy. Every year, the financial department should allocate the funds for propaganda, education and training of intellectual property right, maintenance of public information platform, and review of exchange activities, and reward organizations and individuals that have outstanding contribution in implementing the strategy of intellectual property right. Besides, it should energetically push forward the transformation of patented technologies, transform the traditional industry, improve the production processes, and increase sci-tech content and added value of products. It should focus on the optimization and adjustment of allocation of productive forces, speed up the cultivating independent intellectual property right in new and high technologies and high added value industry, and promote the breakthrough of competitive industry in achievements of independent intellectual property right, to form a batch of model zones for achievements of independent intellectual property right. During the Twelfth Five-Year Plan period, it has already cultivated 3 to 5 independent intellectual property right achievement model zones, about 10 model bases, and over 100 model enterprises.

**4.2.2** Increasing the sci-tech input. Governments at all levels should take the sci-tech input as key points of budget guarantee. Nantong City increases 20 million yuan annually on the basis of raising 60 million yuan in 2007 for scientific and technological projects. By 2015, the fund will reach 220 million yuan, of which the input in agricultural science and technology is higher than 20%. Those key sci-tech innovation projects that can effectively promote social and economic development of Nantong City have been incorporated into special key sci-tech projects of the state or the province, so financial authorities at all levels should provide support in appropriate proportion. Besides, it is required to improve the financial service for sci-tech innovation of medium-sized and small enterprises, and support the commercial banks in establishing stable relationship with small and medium sized sci-tech enterprises. In addition, it is proposed to accelerate the construction of enterprise and individual credit system and promote the development of various credit institutions, support the financial institutions in carrying out pilot work of mortgage business of intellectual property right, support the insurance companies in launching property insurance and product liability insurance for new and high technology enterprises, and provide the insurance services for new and high technology enterprises, and encourage the social funds' contribution to innovation activities.

**4.2.3** Supporting the construction of innovation carrier and sci-tech infrastructure. New high-technological parks established in accordance with laws should be incorporated into overall planning of land utilization and urban overall planning, adopt unified management and conform to requirement of land for the construction of new and high technological industries. The local retention funds in compensation paid for the use of land in new high-tech parks should be wholly returned to parks for land development consolidation and infrastructure construction. For the construction land for provincial level key sci-tech innovation carriers and major technological innovation and sci-tech achievement transformation projects, special support and preferential arrangement should be provided. In particular, it should sup-

port the newly built national level and provincial level public technological service platform, engineering research center and key laboratories, provide lump-sum support, and encourage new high-tech enterprises, medium and large enterprise at city level to establish research and development institutions. For those certified city-level research and development institutions, it should provide certain financial support.

**4.3 Enhancing the construction of agricultural sci-tech innovation team** The construction of agricultural sci-tech innovation team should not only have correct direction, but also conform to demand, and have distinctive characteristics. The construction of agricultural sci-tech innovation team should focus on key agricultural researches. For example, it is required to study the *Twelfth Five-Year Agricultural Sci-tech Development Planning of Nantong City*, and find out how to make breakthrough in new agricultural fields and new industries in Nantong City. For innovation team members, it is proposed to implement dynamic management and introduce the leader assessment system and team member agreement system. Leaders can dismiss team members in accordance with the agreement system, to increase the competitive power of the innovation team in human resources. Besides, it is required to enhance sustainable construction of innovation, support and cultivate new members and disciplines and introduce them into the construction of innovation team.

**4.4 Cultivating the agriculture-related enterprises to be subjects of technical innovation and extension** In the new trend, the development of agriculture-related enterprises should take the road of sci-tech industrialization. Sci-tech research is the foundation, the development is the means, the benefit is purpose, the industrialization is the process and also the bridge connecting science and technology and economy<sup>[38]</sup>. It is essential to promote rapid transformation of independent intellectual property right achievements according to the requirements of modern corporate management system, to reach the purpose of sci-tech promoting industries, while the industries nurture science and technology. Technological innovation is, in essence, an economic process. Therefore, only when enterprises become subjects, may it be able to stick to market orientation and reflect market demand. Technological innovation should provide services for economic and social services, rather than for dissertation or award. The subject position of enterprises is mainly manifested in guiding innovation and assuming major inputs, as well as bearing its risks and enjoying its benefits.

**4.5 Speeding up the development of intensive agriculture and pushing forward agricultural mechanization** This is the only way which must be passed in the course of developing modern agriculture. At current stage, the productivity of Nantong is not high and agricultural mechanization level is relatively low. Therefore, it is required to further extend the agricultural mechanization in Nantong City. Since there are problems of serious waste, pollution and low efficiency in traditional agriculture, it is urgent to strengthen the construction of intensive agriculture, mainly including extension of advanced fertilizer application skills and high efficient planting and cultivating technologies. In addition, it is required to speed up transforming the agricultural operating mode with stabilizing rural land contracting relationship as basis. It is expected that the proportion of large-scale agricultural operation area would be raised up to 50% of

the total cultivated area.

**4.6 Establishing and improving standard agriculture and further pushing forward agricultural standardization** It should focus on the construction of standard system; speed up establishing standard system for origin environment, production technology, and product quality; establish standards suitable for adjustment of agricultural structure and establish local standards for the whole process of production; provide technical support for agricultural structural adjustment; establish standards suitable for foreign trade of agricultural products; choose staple products that can earn foreign exchange through exports, to control pesticide and veterinary drug residue, heavy metal, microorganism and formulate product quality standard. The enterprises of agricultural product export should speed up the integration with the world, establish supporting standard system, and form agricultural standard system that conforms to national standard, industrial standard, local standard and enterprise standard. Besides, it should operate in strict accordance with standards and specifications, establish traceability system in processing field and carry out auction as per quality in wholesale market and forward market. In addition, it should further increase the coverage rate of agricultural standardization and establish a batch of agricultural standardization model bases of national, provincial and city (or county) level. Furthermore, it should establish scientific and reasonable standardization information advisory service system.

**4.7 Speeding up developing the digital agriculture and promoting the information-based agriculture** Digital times and information times are the synonyms of current society, so agricultural sci-tech innovation should also reflect the trend of modern agricultural development in these fields. Specifically, it should establish digital agricultural information integrated service system. Besides, it should develop digital agriculture and observe and study growth of agricultural crops and poultry with the aid of digital simulation technology, to carry out agricultural production more reasonably and effectively<sup>[3]</sup>.

**4.8 Accelerating the development of innovative agriculture and further creating cultural atmosphere of innovation**

Currently, it should insist on guidance of the Scientific Outlook on Development, to make efforts to create cultural atmosphere favorable for autonomous innovation. In particular, it should cultivate innovation awareness, advocate initiative spirit and improve innovation mechanism in the whole Nantong City. Besides, it is required to set up the spirit of having courage to compete and tolerant towards failure. In addition, it should make efforts to create favorable conditions for encouraging sci-tech personnel to innovate and support sci-tech innovation personnel to realize innovation. In this situation, it is essential to eliminate abnormal sci-tech styles, such as eagerness for quick success and practice of fraud. Finally, it is proposed to bring into full play respective advantages through macroscopic readjustment and control, resource integration, avoiding waste and strengthening cooperation.

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Village, only when the government offers subsidies to villagers can the villagers' misgiving be dissipated to participate in various kinds of skills training organized by government. Declined credibility of the government departments also abates the "reputation" of the village head as the representative of public authority, making the villagers remain vigilant over the supply of public goods organized by the government, which hampers the villagers' collective cooperation. As is shown by the model, when  $V$  is decreased, the total supply of public goods will be reduced, which may even lead to the failure in the supply of public goods.

In general, the establishment of rural cooperatives is often driven by the experience of one certain big economic household. Due to limitation of the vision of the villagers, the villagers are difficult to realize the benefits and necessity of the agricultural cooperation. However, when there are successful examples around the villagers, they can truly feel the benefits, and their recognition of cooperatives will be increased. Due to the reputation mechanism and model demonstration, the typical successful people organizing rural cooperatives, can make the villagers realize the necessity and importance of establishing cooperatives for cooperation, and increase villagers' participation, conducive to facilitating collective cooperation, and reducing difficulty in the supply of public goods.

## 5 Policy recommendations

These studies have shown that the social capital of the elite within the village is the key for the village to reach collective action; the social capital can abate the free-rider motivation and reduce transaction costs, thereby increasing the output of public goods. The policy implications of this conclusion are as follows:

**5.1 Rebuilding the community credit** In order to solve the current shortage of public goods in rural areas, it is necessary to increase social capital in rural areas. Especially after the reform and opening-up, the original clan kinship in rural areas is weakened, and the new authority has not yet been established, the rebuilding of community credit becomes very important.

First, it is necessary to build transparent village committee and build honest role model. The village committee is a legitimately elected authority body, responsible for the management of various aspects in rural areas. As the largest authority body, the village committee's behavior has a profound impact; fair and transparent village committee is conducive to the generation of social capital in the village.

Second, it is necessary to establish institutionalized public participation platform, unblock channels of communication, and

improve the democratic decision-making mode; deepen and advance the existing villagers' congress in rural areas, to enhance the villagers' sense of ownership, and promote awareness of the villagers to participate in social affairs.

Third, it is necessary to use the culture in the village to construct a new socialist countryside fashion.

**5.2 Giving full play to the role of the rural elite in the supply of public goods in rural areas** In order to play the role the rural elite in the supply of public goods in rural areas, the incentive mechanism of public goods must be improved. Public goods can play an important role in rural social and economic development, thus we should put the responsibility of increasing the supply of public goods in a more important position. Currently, too much emphasis on the stability work affects the work of village cadres. The community should pay attention to the supply of public goods, and give material or spiritual reward to the rural elite who play an important role in the supply of public goods, which can encourage the rural elite to play a greater role in the supply of public goods.

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