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Restrictive Factors of Vocational Education Development in Cultivation of Rural Practical Skilled Personnel and Countermeasures

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Abstract Kunming City is accelerating the process of agricultural modernization, industrialization, informationization and ecological development. In this process, it needs speeding up building new high level and advanced rural practical skilled personnel team suitable for development demand. By empirical analysis method, this paper discussed the factors restricting vocational education in cultivation of rural practical skilled personnel. Then, it came up with countermeasures in cultivation objective of rural vocational education, arrangement of specialized disciplines, key development tasks, and establishment of diversified investment system.

Key words Rural practical personnel, New farmers, Rural vocational education, Development countermeasures

1 Introduction

With rapid development of China's agricultural modernization, agricultural industrialization and rural urbanization, rural personnel structure needs constantly adjustment and rural personnel demand takes on new trend. The construction of rural practical skilled personnel team is a major area of agricultural and rural personnel work and also key part of strengthening agriculture through personnel development. The *Outline for Medium and Long Term Educational Reform and Development Plan of the State (2010–2020)* clearly stated that we should speed up developing rural area oriented vocational education and take enhancing functions of vocational education as major part of new socialist countryside construction. Therefore, energetically developing rural vocational education, enhancing construction of rural practical skilled personnel team, and cultivating new farmers are major guarantee for accelerating agricultural sci-tech progress, transforming agricultural development mode, and promoting development of modern agriculture.

Kunming City is the capital and largest city in Yunnan Province, Southwest China. It has typical characteristics of big city, big countryside, big mountain area, and many nationalities. At present, Kunming City is accelerating the process of agricultural modernization, industrialization, informationization and ecological progress. In this process, it is required to greatly increase the proportion of rural practical skilled personnel to agricultural population, and build new high and excellent rural practical skilled personnel team. In the period of the Eleventh Five-Year Plan, Kunming City energetically implemented new rural practical skilled personnel training project, to increase total amount, improve structure, and raise ability. It has developed a good many practical personnel suitable for new socialist countryside construction.

However, there is still an obvious gap from building new socialist countryside, developing industrial development of modern agriculture, and cultivating new rural practical skilled personnel adapting to times development. There are following problems: many farmers of traditional production mode but few new practical skilled farmers; many production talents of primary industry but few fine and deep processing and operation management; many farmers engaged in simple and scattered agricultural production but few engaged in industrialized production and circulation of agricultural products.

Therefore, energetically developing rural vocational education and providing training of practical agricultural technology and vocational skills for farmers are helpful to actively guiding and educating farmers, making them become new farmers who are the ones with knowledge, farming technique and management, and favorable to promoting balanced urban and rural development, optimizing agricultural industrial structure, and cultivating new farmers.

2 Factors restricting cultivation of rural practical skilled personnel

2.1 Imbalance between supply of rural vocational education resource and demand of rural talents

County-wide agricultural vocational education is major part of rural human resource cultivation. It shoulders the responsibility of improving farmers' culture, cultivating new farmers, and serving new countryside construction. However, in recent years, it is faced with development bottleneck in recent years. Since students of rural vocational education schools are insufficient, enrollment of agricultural discipline students is faced with more serious challenges. Besides, agricultural students of rural vocational special secondary schools or vocational high schools are gradually decreasing. In 2013, secondary vocational schools of the whole Kunming City enrolled 37100 students, while the agricultural students account for less than 10%. Many rural areas even stopped enrollment of agriculture-related discipline students. Agricultural discipline in vocational education takes on sharp shrinkage trend. With the development of

agricultural industrialization, the demand of rural areas for various skilled personnel is constantly increasing, and the conflict between demand of rural skilled personnel and the supply of agricultural vocational education resource is constantly prominent. There is imbalance between current school running conditions of rural vocational education and rapid development of personnel demand and future education potential, which poses considerable challenge for cultivation of rural practical skilled personnel.

2.2 Disconnection of quality of rural vocational education with demand of economic and social development Since the issues concerning agriculture, farmers and rural areas are complex, rural cultural level is low, production and operation are separate, and agricultural production level is low, rural vocational education is complex in service direction, teaching model, and discipline arrangement ^[1]. In addition, objectives of education and cultivation are set according to social requirement for talents, so changes of rural economy and society are basis for formulating objectives of rural vocational education. At present, Kunming City is committed to adjusting and optimizing rural industrial structure, speeding up rural small town and agricultural industrialization process, conducting new socialist countryside construction, and cultivating new farmers, so the objective of rural vocational education should be oriented towards cultivating comprehensive and practical skilled personnel to serve agriculture and rural areas ^[2]. However, existing objectives of rural vocational education in Kunming City is being deviating from these requirements. Discipline arrangement fails to conform to demands of local pillar industries, traditional industries, new industries and regional economy. Vocational schools do not have accurate school running orientation and just blindly follow the tide. As a result, arrangement of disciplines overlaps and lacks local characteristics and advantages. In recent years, nearly all schools have electronic apparatus, mold design, automobile maintenance, computer operation, and advertisement design disciplines. Original planting and breeding disciplines have stopped enrolling students. It now seriously lacks disciplines closely related to structural adjustment of agricultural industry, such as agricultural product processing, rural operation and management, and agricultural skill service, *etc.*

Besides, teaching plans of some vocational schools fail to make dynamic revision according to changes of rural economic and social development. Course arrangement is highly similar and poorly pertinent. Especially, both teaching hour and quality fail to reach teaching objectives. In recent years, rural vocational education of Kunming City has made exploration in effective combination with rural social and economic development. It has summarized successful school-running modes, such as "combination of economy, science and education", "integration of three types of education", and "school + company + peasant household". They have set many practice bases. However, due to limitation of functions, scale, quantity and level of double-qualified teachers, quantity of facilities and modernization level, school-running conditions fail to satisfy demand of current situation and future devel-

opment. Furthermore, vocational schools are weak in rural opening awareness, market awareness, innovation awareness, benefit awareness, and cultivation of operation concept, and fail to combine vocational education and improvement of students' comprehensive quality. These poor conditions lead to low teaching quality and poor school-running condition, seriously dampen enthusiasm of farmers' participation in training, and finally restrict development of rural human resources and cultivation of rural practical skilled personnel.

2.3 Great gap between effect of rural vocational education and farmers' education demand Since the reform and opening – up, Kunming City has made considerable progress in rural vocational education. Local government has realized the importance and urgency of rural vocational education, and has incorporated cultivation of high quality rural practical skilled personnel into major measures for solving issues concerning agriculture, farmers and rural areas, increasing rural labor productivity, and promoting new socialist countryside construction. The focus of vocational education is moving from cities to countryside, but there is a great gap between enthusiasm of farmers accepting rural vocational education and the motive force of government. Enthusiasm of farmers' accepting vocational education and training is influenced from their economic rational concept and "living event" experience. In western remote rural areas and minority areas, farmers get used to traditional agricultural production mode. They have not made it clear that whether modern science and technology can bring benefit, how much investment should they increase, how many processes and work hours should they increase, how much yield it can bring about, whether products can be sold well, and whether yield increase can bring income increase. Most of them worry about effect of rural vocational education, showing rational act of human capital investment and short-term and practical value of education and training effect.

In addition, in the experience of farmers' agricultural production, there is case of yield increase without income increase; in some sci-tech extension projects, farmers input much labor, materials and capital, but fail to receive little ^[3]. Such experience is also important factor for doubt of farmers about effect of rural vocational education. Furthermore, it also influences fuzzy evaluation of rural practical skilled personnel on their value and functions, and may cause them to doubt productivity benefit converted from science and technology in social production practice. In this situation, it brings negative effect to demonstration of rural practical skilled personnel. Therefore, it is required to study how to bring into full play radiation and promotion functions of them to agriculture and rural areas, expand influence power of effect of rural vocational education, and satisfy education demand of farmers.

3 Countermeasures and recommendations for development of rural vocational education

The *Outline for Medium and Long Term Educational Reform and Development Plan of the State (2010 – 2020)* clearly stated

that we should speed up developing rural area oriented vocational education, enhance construction of agriculture related disciplines, reform enrollment and teaching models, and strengthen cultivation of specialized personnel suitable for agricultural and rural development. These fully manifest close attention of the Party and central government to agriculture and farmers' education, and also provide powerful guarantee for sound development of agricultural vocational education ^[4].

3.1 Repositioning cultivation objectives of rural vocational education

Any education reform must rely on positioning of correct cultivation objectives. The type of talents cultivated by Kunming City in rural vocational education is directly related to content and modes of vocational education. Thus, cultivation of objectives of rural vocational education needs a clear and proper positioning of cultivation standards and requirements. With acceleration of agricultural industrialization, a lot of rural practical skilled personnel fail to adapt to demand of rural areas. Therefore, it should reconsider cultivation objectives of rural vocational education and set up rural vocational education skilled personnel cultivation system oriented towards actual demand of rural areas, farmers and agriculture. Rural vocational education of Kunming City should change from focusing on knowledge cultivation to skill cultivation, and should attach importance to cultivation of knowledge-type, skillful and innovative talents; original idea of serving agricultural personnel only for local areas should be changed to cultivation of new farmers who are the ones with knowledge, farming technique and management, *i. e.* providing new rural practical skilled personnel with high competition, independence and management awareness ^[5]. Therefore, for cultivation of rural practical skilled personnel, it is required to increase proportion of teaching of rural practical skills, properly treat the relationship between discipline teaching, practice teaching and quality teaching, and establish cultivation objectives of rural vocational education suitable for rural development demand in the new situation.

3.2 Setting characteristic and superior disciplines and courses in combination with regional economy and society and realities of pillar industrial development

Discipline setting manifests objectives and characteristics of personnel cultivation. Rural vocational education is oriented towards cultivating numerous new farmers and rural labors. Thus, the discipline structure must adapt to changes of rural regional economic, social and industrial structure and personnel demand. Besides, it is required to constantly develop rural human resources, promote rural economic development, and push forward process of urbanization and industrialization. This requires that discipline setting of rural vocational education should take modern great agriculture as guidance. In other words, discipline setting should not only attach importance to production factors of primary industry, but also lay stress on fine and deep processing industry of agricultural products, as well as commercial factors of secondary and tertiary industries, such as transportation, marketing, operation and management. Therefore, discipline setting of rural vocational education should be based on

characteristics of regional agricultural industrial structure, situation of regional rural human resource, and comprehensive and technical demands of rural personnel under the guidance of great agriculture, closely focus on agricultural pillar sectors, including flower, vegetable and milk in Kunming City, to do well in construction of characteristic and superior disciplines.

Discipline setting of rural vocational education should be reasonable. It is required to dynamically and flexibly adjust course structure according to changes of rural economic structure; syllabus and course structure should be designed according to industrial chain included in the great agriculture and in accordance with development requirement of rural society and farmers' living. Course setting should be pertinent and practical and should focus on serving agriculture, farmers and rural areas and improving practical skills of students ^[6]. With advance of new socialist countryside construction in Kunming City, many projects of agricultural production will become new economic development points, such as green food, fine and deep processing of agricultural products, ecological agriculture, and urban agriculture, *etc.* This needs further study on rural vocational education, focusing on construction of modern agriculture, and setting courses in a scientific manner.

In addition, it is required to increase proportion of practice courses, ensure time and content of practice teaching, implement cultivation of practical ability in the whole process of teaching, implement the concept of combination of production, teaching and research, take full advantage of social resources and rural sci-tech model bases, incorporate new achievement of sci-tech development into course teaching, improve practical skills of students, and cultivate rural practical skilled personnel with high manipulative ability.

3.3 Developing adult continuing education and training oriented towards primary rural practical skilled personnel

At present, primary rural practical personnel in rural areas of Kunming City account for more than 90%, indicating that they are core force of new socialist countryside construction in Kunming City and will also be key personnel for rural economic and social development. Development of rural vocational education should carry out diversified vocational training in accordance with characteristics of rural vocational education.

3.3.1 Improving training system for rural practical talents. Under unified organization and arrangement of agricultural department of Kunming City, competent agricultural authorities of cities, counties and districts should stick to the principle of orienting towards agriculture, farmers and rural areas, adhere to development direction of combining agriculture, science and education, organize agricultural technical extension station (center), radio and television schools, vocational secondary schools, agricultural technical schools, and township farmers technical schools to assume technical training tasks, carry out multi-channel, multi-level, and multi-form training, and establish complete training system and network.

3.3.2 Consolidating teaching content of education and training

in a scientific manner. Teaching content should include following points: cultural courses should focus on application knowledge, such as computer application, business negotiation, foreign language communication, and writing of economic contract; legal courses include *Constitution*, *Economic Law*, *Labor Law*, and laws related to agriculture; professional course include planting, cultivation, agricultural product processing, agricultural business administration, and maintenance of agricultural electromechanical equipment, and training of necessary knowledge for cultural and health and modern lifestyle, to improve farmers health and living condition; science and technology courses: it is required to train latest science and technology knowledge suitable for local production and life, to widely apply scientific and technological achievement in agricultural production and farmers' life, and improve rural modernization level.

3.3.3 Actively developing distance education system. It is recommended to set up network education points relying on agricultural secondary schools and vocational schools or township agricultural technological extension departments with better condition, and conduct centralized distance learning, to realize high efficiency of rural practical talent training.

3.3.4 Energetically advocating rural "self-organization" to carry out vocational skill training. With development of agricultural specialization and organization, farmers, on the basis of voluntary participation and mutual benefit, have set up various self-management and self-service specialized associations through organization of leading enterprises. These organizations are major resources for technological demonstration and training, to conduct new rural practical talent training in the form of passing on personal experience. They will also become important force of sustainable development of rural human resources.

Kunming City is accelerating developing various new farmers' cooperative economic organizations, such as rural specialized cooperatives and association. This requires cultivation of a lot of specialized persons and leaders responsible for operation and management. Therefore, it should take vocational skill training as basis, take existing primary rural practical talent as object, and take rural brokers, persons responsible for farmers' specialized cooperatives and agricultural industrialization leading enterprises as key parties, to cultivate rural operation and management talent suitable for development demand of agricultural marketization and industrialization and leading farmers to build new socialist countryside. For example, it is able to launch "training program for farmers' economic cooperatives" through inviting investors and going out policies, carry out training of knowledge related to agricultural product circulation policy, industrial and commercial management knowledge, and broker management, contract law, economic law, and agricultural cooperative law, and improve organization and driving capability, specialized service ability, and market adaptation capability.

3.4 Establishing diversified investment system to promote balanced development of rural vocational education

Rural vocational education provides service for development of the whole society, so it has nature of public goods. Its public nature determines that, as a party of responsible subject, government must assume the responsibility of investment and school running. Besides, it is required to fully arouse enthusiasm of other social system to actively participate in supply of public goods, to form "multi-subject" running of vocational education. Therefore, it is recommended to mobilize human resource and financial resource of local government, institutions and enterprises, social organizations, nongovernmental organizations, public welfare organizations, and citizens, to energetically support development of vocational education and realize diversified development pattern of vocational education and training. Besides, it should increase input into rural vocational education, solve the existing problems of unbalanced teaching team, backward teaching condition, and deficient funds. In addition, it is proposed setting up rural vocational education development fund to raise vocational education running capability of poverty-stricken areas. In Kunming City, there are many poor mountain areas and minority villages and both financial revenue and farmers' income are low, it is difficult for them to support vocational education and human capital investment. Therefore, it is required to establish multi-level rural vocational education development fund with municipal finance as subject, and establish security system for investment of vocational education fund, to ensure financial support for backward rural areas and poor groups in receiving vocational education and human capital development, enhance farmers' awareness of accepting vocational education, and so as to promote balanced development of vocational education in different rural areas.

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