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The discussion on Problems and Countermeasures in Engineering Consulting of Agricultural Construction Projects

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Abstract:

With the steady promotion of the 14th Five-Year Plan, Chinese economy is turbocharging, and the number of agricultural construction projects increase greatly, but the development of the engineering consulting industry has failed to keep pace with the times. Moreover, the early consultation of agricultural engineering is an important project planning work, which can significantly improve the overall quality of agricultural engineering. Therefore, in this paper, starting from the actual situation of agricultural construction projects in China, the content and importance of agricultural engineering consulting in agricultural construction projects are briefly described, and the existing problems in the current consultation work are deeply analyzed, and the corresponding solutions are put forward.

Keywords: *Agriculture, Decision, Engineering Consulting, Agricultural Construction Projects, Engineering Consulting Industry.*

I. INTRODUCTION

In the initial years of the "14th Five-Year Plan", under the background of the country's re-positioning of regional development and promoting the strategy of regional economic development, the speed of agricultural development accelerated, followed by the increasing number of agricultural construction projects, and the higher requirements for project construction. Agricultural engineering consulting, as a key link in the early stage of agricultural construction projects, can not only provide a scientific and powerful theoretical support for project decision-making and determining the total investment of the project, but also make a reasonable prediction on the economic, social and ecological benefits of the project, which can save the project cost and improve efficiency. Although the capital investment in agricultural project consulting accounts for a small proportion, it has a great impact on agricultural

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construction projects, and the mistakes in its early decision-making often cause significant investment losses and far-reaching effects. Therefore, agricultural engineering consulting plays a vital role in the formation of decision-making, which is related to the decision of whether to invest in a certain project, the quality and safety of agricultural construction projects, and the project cost and cost accounting.

II. MAIN CONTENTS OF AGRICULTURAL ENGINEERING CONSULTING

Agricultural and forestry engineering consulting, as the first major of 21 engineering consulting majors, has the main work contents of compiling project planning research report, project opportunity study report, project proposal, project feasibility study report, project evaluation[1], and supplementing and perfecting some special research reports which cannot meet the decision-making needs. Agricultural construction projects are characterized by public welfare, wide coverage, far-reaching influence, complex environment, diverse construction contents, low investment intensity, long construction period, slow output benefit, but good relative social and ecological benefits [2], which is conducive to the healthy and sustainable development of the national economy. Generally, agricultural construction projects are dominated by government investment and take the form of cooperation with social capital.

III. THE SIGNIFICANCE OF AGRICULTURAL ENGINEERING CONSULTING

Agricultural engineering consulting can provide more professional analysis for the construction unit, and carry out scientific and rigorous demonstration, accounting and evaluation on the necessity, feasibility, design scheme, total investment, operation and benefit after completion of the project, which can provide scientific basis for the construction unit to judge and make decisions.

First of all, to the project construction unit, the inexperience and lacking of knowledge caused the blindly optimistic about the project investment, and making wrong judgments, laying hidden dangers for the construction project investment and causing the investment out of control. Mistakes in project decision-making are often accompanied by significant investment losses and adverse social impact. In order to ensure the scientificity of project decision-making, engineering consulting can not only carry out scientific research and in-depth analysis on the necessity and feasibility of the project, market demand, market competitiveness, construction scheme, project investment, operation after the project is completed, possible efficiency and risks faced, providing a comprehensive consultation outcome document, which is the basis for the construction unit to make scientific investment decisions, but also help the construction unit to accurately predict the actual value, economic benefits, social influence and social risks of the

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project, accelerate the landing speed of the project, and understand all aspects of the project more quickly, intuitively and accurately, saving time and labor costs.

Secondly, problems can be found and corrected in time, and modifications can be avoided at the implementation stage through agricultural engineering consulting, which can effectively control the project cost. By controlling the materials and workload used in the project implementation process in a general direction, the project cost can be strictly controlled, avoiding a series of problems caused by increasing the project cost during the project implementation, and effectively avoiding the capital loss and environmental pollution caused by material waste, on the other hand, helping the construction unit to improve the economic benefits of the project. Moreover, the cost are estimated scientifically and reasonably through agricultural engineering consulting, which greatly improves the budget quality of the construction unit and ensures the accuracy of late settlement [3].

IV. DIFFICULTIES AND PROBLEMS IN AGRICULTURAL CONSULTING

4.1 Insufficient Industry Norms and Relevant Laws and Regulations, Incomplete Policies

With the country stepping up the process of reform and opening up and deepening the requirements of the "reforms to streamline administration, delegate powers, and improve regulation and services", the engineering consulting industry has changed its access rules from the qualification management system with relevant professional qualifications to the credit evaluation management, which means that it can engage in engineering consulting services after notice registration. As a result, the cancellation of entry barriers has led to the proliferation of engineering consulting units, intensified market competition and brought about a new round of industry reshuffle. By 2021, there were 24,413 units engaged in engineering consulting, including 1,073 Grade A credit and 3,977 Grade B credit, which brought great challenges and difficulties to management, as well as inevitable inadequate management and lack of supervision. Up to now, there is no perfect legal system to regulate the market in the engineering consulting industry, the industry legislation lags behind, and there is a lack of industry norms and relevant laws and regulations to restrain the consulting engineers themselves and the market behavior of the industry. In addition, many countries have fully recognized the importance and significance of pre-agricultural consulting in the construction of agricultural projects in the process of foreign agricultural development, so they have formulated relevant laws and regulations, various favorable policies and taxes to support the sustained, healthy and stable development of the consultation industry. However, although the Chinese government has attached great importance to the engineering consulting industry to a certain extent, it is still facing severe and urgent policy system problems. At present, the policy

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system of the whole consulting industry in China is still imperfect, not prominent or even unified. Small consulting policy coverage, gaps in consulting policies in many fields, such as fiscal policy, lack of clear policies and regulations in consulting market management, industry norms, institutional review, employment qualifications, consulting prices, etc., are not conducive to the formation and healthy and stable development of China's consulting industry industrialization[4].

4.2 Not enough Attention to Agricultural Engineering Consulting and Insufficient Work

In the era of planned economy, the feasibility of China's agricultural construction projects is only decided by the government departments unilaterally, without preliminary investigation and study and in-depth analysis, which often leads to a high possibility of mistakes in project decision-making, and brings serious losses and great influence to the country. Nowadays, although the mode of engineering consultation has been introduced in our country, its development is in the primary stage due to its late start and the overall development level is not coordinated and perfect. In addition, the construction unite have not changed its concept, and still do not attach importance to the engineering consulting work of agricultural construction projects. They are irresponsible to go through the process mechanically to complete the tasks. Often, due to the progress, tight schedule and heavy tasks of agricultural construction projects, the preparation of consultation documents is reduced, which makes it impossible to fully investigate, analyze and collect project information, and finally leads to the low overall quality level of consultation services, insufficient depth, blindly optimistic economic benefits and inaccurate analysis of social and ecological benefits, which is not conducive to the later advancement of agricultural construction projects and becomes a hidden danger of losing control of agricultural construction projects. On the other hand, based on the characteristics of agricultural construction projects, before the implementation of the agricultural construction project, the engineering consulting unit fail to conduct sufficient on-site investigation and analysis on the location of the agricultural construction project, or collect comprehensive information, and is lack of sufficient understanding of the functional requirements of the project, which makes the work in a passive state. In addition, the relevant laws, regulations and regional policies of the location of agricultural construction projects are not thoroughly interpreted or even involved, and the preliminary work cannot be put in place in time and effectively, which seriously affects the progress of agricultural construction projects.

4.3 Low Service Quality of Agricultural Engineering Consultants and Lack of Compound Talents

As China's engineering consulting industry is in the primary stage of development, the

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overall development of the industry is not balanced, the engineering consulting services are mainly concentrated in the construction, highway and municipal public works and other directions. For example, in Hainan Province, up to 2021, there were 212 engineering consulting units on record, and 83 engaged in agricultural and forestry engineering consulting on record, accounting for about 39%. There were 95 units that have joined Hainan Engineering Consulting Association, among which 15 were Grade A and 45 were Grade B, and 19 were engaged in agricultural engineering consulting services, accounting for about 32% [5]. It is obvious that with the adjustment of national strategy and the overall promotion of rural revitalization, the units engaged in agricultural engineering consulting are rising year by year, showing a thriving posture. However, there are still a series of factors affecting the quality of most agricultural engineering consulting services, such as the low status of engineering consulting industry, the low management level of consulting units, the low charging standards of engineering consulting services, and the low wages and salaries of personnel, which limits the input of energy. The comprehensive quality of agricultural engineering consultants can hardly meet the development and needs of the industry. Due to the problems of low level of overall knowledge, single subject, outdated knowledge, poor professionalism, lack of service consciousness, they can not meet the needs of modern agricultural engineering consulting services, the preparation of consulting text can not meet the needs of project decision-making, and are not up to the needs of the cumbersome investigation and analysis process of agricultural engineering consulting, which results in the quality of consulting services can not be guaranteed, affecting the progress of the project, and irreparable loss. In a word, agricultural engineering consulting is an intelligent consulting service, which covers a wide range and needs high-quality compound talents.

V. ANALYSES ON COUNTERMEASURE TO SOLVE THE PROBLEMS OF AGRICULTURAL ENGINEERING CONSULTING

5.1 Improving the System of Engineering Consulting Industry and Strengthening the Self-Discipline Awareness of the Industry

The solution to the problems existing in the engineering consultancy depends mainly on reform, institutional framework, market, and continuous improvement. On the one hand, relevant government departments and engineering consulting industry associations should give full play to their subjective initiative to promote the vigorous and healthy development of the engineering consulting industry, and constantly explore and improve the system construction, standard construction, credit system construction and supervision mechanism of the engineering consulting industry, so as to solve problems and resolve conflicts, gradually achieve the goal of high-quality development of the industry, further standardize the

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development order of the industry, and create a fair, open and standardized development environment for the industry. On the other hand, the engineering consulting industry should constantly strengthen its self-discipline awareness, continuously improve the reputation and corresponding ability of consulting institutions through credit rating and continuing education, further enhance its self-discipline and management level, build a scientific and fair self-discipline management system, and establish an industry credit evaluation system to further increase its self-discipline awareness and management. At the same time, consulting units should gradually adapt to market demand, continuously improve service quality and enhance service capacity [1].

5.2 Improving the Understanding Level of Agricultural Engineering Consultation and Attaching Importance to the Preliminary Work of Overall Management

Through long-term exploration and development experience, the Chinese engineering consulting industry must to pay attention to the engineering consulting work of deep agricultural construction projects, conduct sufficient investigation, conduct in-depth analysis and draw an objective conclusion in order to avoid blindness in project decision-making [6]. Which is conducive to the development of the cause of agriculture, rural areas and farmers. Engineering consultation of agricultural construction projects will encounter many comprehensive problems. Therefore, after accepting the entrustment of the project, the engineering consulting unit should immediately set up a project implementation team to start the overall work, organize various parties to coordinate and make overall plans, and conduct scientific research and demonstration for each key node, so as to ensure timely and effective communication among various departments, improve work efficiency, scientifically carry out the demonstration and analysis of the project consulting report, give attention to science, rationality and operability, and form a unified opinion[7], so as to timely correct the defects of the scheme, find and solve problems, and promote the final consulting service results. Secondly, the various risk issues that may arise during the project implementation should be fully anticipated and coordinated with agencies to make emergency plans in advance.

5.3 Improving the Comprehensive Quality of Agricultural Engineering Consultants and Building a Team of Compound Talents

With the country's increasing emphasis on agricultural development, the number of agricultural construction projects has increased greatly, which has brought about an increasing demand for agricultural engineering consulting services, and put forward a more comprehensive and higher requirement for the professional quality of personnel engaged in agricultural engineering consulting services. Therefore, we should constantly explore and

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improve the management system of agricultural engineering consulting projects, establish and improve the promotion channel and reward and punishment mechanism, so as to correct the working attitude of consultants, stimulate their enthusiasm and initiative, and regularly arrange training, assessment and continuing education for agricultural engineering consultants, so as to strengthen communication and exchange with industry associations and peers, update knowledge reserves, continuously improve the professional quality and skills of agricultural engineering consultants in all directions, enhance the core competitiveness of agricultural engineering consulting services, and build a compound talent team[5].

VI. CONCLUSIONS

The construction of high-quality agricultural construction projects cannot be completed without the vigorous and healthy development of modern engineering consulting industry. Meanwhile, a perfect engineering consulting system is also an important means to ensure the quality of agricultural construction projects. Besides, consulting management plays an important role in the whole process of engineering consulting, and is an important prerequisite for project implementation and construction. The construction of agricultural construction projects is the core hardware basis for the development of agriculture and also an important factor in attracting high-quality talents to participate in agricultural scientific research and output development. Because of the particularity and comprehensiveness of agricultural construction projects, cooperation and support from various parties are indispensable in the construction process. Consulting work can bring together various forces and integrate the allocation of resources, which not only can ultimately affect the decision-making and construction of the project through this process, but also can fully ensure the effective accounting of the project, and discover and solve the problems existing in the consulting service in time, each of which is of great significance to the later construction stage.

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