

Problems and Countermeasures Existing in the Construction and Management of Agricultural Water Conservancy Projects

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Abstract: The construction of irrigation and water conservancy projects has an important impact on the development of local agriculture and people's living standards. The development of agriculture and rural economic development have a vital role and positive significance, so it is crucial to do a good job in the construction and management of small water conservancy projects. Measures should be taken to local conditions to ensure the reasonable planning of water conservancy projects. In addition, the relevant departments should also ensure the capital investment of water conservancy project construction, and do a good job in the construction management and personnel management of water conservancy project construction, so as to improve the construction quality of water conservancy projects.

Keywords: Agricultural water conservancy; Engineering construction; Management countermeasures

Foreword

The construction of irrigation and water conservancy projects is of great significance to the development of agriculture in China. The construction of irrigation and water conservancy projects is to meet the needs of farmland and water, so the construction quality of the projects will affect the development of local agriculture, and will further affect the living standards of local farmers. China gradually into the era of agricultural modernization, all kinds of agricultural water conservancy project construction technology is constantly improve, analyze the difficulty of agricultural water conservancy project construction and construction technology, put forward the feasible quality management plan, strengthen geological survey, strict, control of building materials and equipment quality, can really improve the construction quality of agricultural water conservancy projects in our country.

1. Overview of agricultural and water conservancy projects

In the process of agricultural development, the purpose of agricultural water conservancy project is to optimize the water use for agricultural production, improve agricultural production conditions and improve agricultural production efficiency. Agricultural water protection projects include improvement of middle rivers, reinforcement of reservoirs, conversion of irrigation areas and comprehensive improvement of mountains and ponds. Agriculture is the basic industry of our country, and it has made a great contribution to the growth of the national economy. At present, modern technology has been gradually integrated into the whole process of agricultural production, greatly improving the efficiency of agricultural production. Agricultural water conservancy project is an important guarantee for agricultural production, which can fight floods and drought and improve the quality and efficiency of agricultural production. Water resources in our country are scarce, and agricultural production must be driven by large amounts of water. Therefore, the state has put forward higher requirements for agricultural water conservancy projects, and agricultural water conservancy projects should achieve the purpose of mechanical operation, high efficiency, energy saving and water saving.

2. Analysis of problems in the construction management of agricultural water conservancy projects

2.1 Lack of scientific planning

Before starting construction, without scientific planning, it may lead to various quality problems. In the construction of agricultural water conservancy projects, some construction personnel are based on their own experience, resulting in the project quality and construction plan is greatly different. For example, the lack of detailed planning during the construction process may greatly shorten the life of a water conservancy project. In addition, due to the small scale of agricultural water conservancy projects, the project content, construction technology, construction quality control, especially the key links of construction design, have not received due attention. When the construction is conducted according to the design drawing, due to the imperfect design scheme, some design requirements are not consistent with the actual construction conditions, and the whole construction plan and layout are completely destroyed, and the original scheme can not be used for construction.

2.2 The function of old facilities is degraded and the construction funds are short

Many factors will be involved in the construction process of irrigation and water conservancy projects, such as construction materials and construction equipment. The procurement of materials and equipment must need a certain amount of financial support. If the funds are insufficient, it may lead to problems in construction materials and equipment, and then affect the construction quality of water conservancy projects. Most of the agricultural water conservancy projects are relatively backward, and the operation time is more than 50 years. The aging problem of facilities is serious, which affects the play of irrigation function. Although a lot of funds will be invested in the maintenance, dredging and reinforcement every year, the effect is not obvious, and the waste of water resources is serious, which restricts the development of rural economy. There are also problems in new water conservancy projects. The state financial allocation is the main source of funds, and the investment power of the society in the construction of water conservancy projects is insufficient, and the construction of the water conservancy project can not be carried out normally.^[1]

2.3 The management work is not in place, and the project maintenance is not timely

The monotonous operation form of water conservancy projects, extensive management, resulting in the work efficiency can not be improved. After the project is completed and put into actual use, it is basically managed by the masses independently. Due to the lack of special management units and professional management, and the guidance of personnel, the water conservancy project can not be timely maintenance and professional management. However, the masses lack of management and maintenance awareness and relevant management knowledge and experience in the management process, resulting in the overall management effect is not ideal, and the project maintenance is not timely.^[2]

3. Management countermeasures of agricultural water conservancy project construction

3.1 Effective implementation of the quality management plan

The construction quality of agricultural water conservancy project largely depends on the construction technology used by the construction company. In the construction project, we must choose the construction team with strong comprehensive quality to ensure the construction quality. Compared with the general qualification construction team, the high-quality construction team has more experience and relatively advanced equipment. In the construction process, if there are quality problems, the staff can rectify them in time. Effective implementation of the quality management plan also includes improving the equipment management at the construction site to avoid affecting the project quality due to equipment problems.

3.2 Strengthen geological exploration

Environment is the main factor affecting agricultural production, and also an important factor affecting the construction of agricultural water conservancy projects. As the geological environment and hydrological conditions will affect the quality of the project in different ways, the relevant departments should carry out the geological exploration work before the construction, and make a design plan according to the local geological conditions. After the completion of the investigation, if the geological conditions are not suitable for construction, the foundation must be arranged first to increase the bearing capacity of the foundation and avoid settlement and deformation in the construction or subsequent use process. In addition, scientific geological survey can collect more engineering construction data and provide data support for design engineers to ensure the quality of the project.^[3]

3.3 Strictly control the quality of construction materials and equipment

Agricultural water conservancy project is related to the development of agriculture in Our country. Materials are an important part of water conservancy projects, and their quality directly determines the quality of the project. Therefore, in the construction of agricultural water conservancy projects, especially in the purchase of cement and other construction materials, it is necessary to control the quality of materials, to ensure that the materials used in the project meet the plan and design standards, and the construction of the project to high standards. First of all, the quality of the submitted samples shall be inspected if the materials samples meet the

requirements of construction. Spot checks shall be carried out under the supervision of the staff to ensure that all materials have quality certificates; in addition, before purchasing construction materials, to prevent unqualified materials from entering the construction site to ensure the quality of the materials required for the project. In addition, in order to prevent the unqualified materials from flowing into the construction site, the quality control and inspection personnel should also test the materials before they arrive at the construction site to ensure that some individual materials are free of defects. The engineering construction machinery has a very important influence on the construction quality.

3.4 Management in the construction process

Project management plays a vital role in the construction of projects. The effective development of the project management work can ensure the orderly construction of the project, and then ensure the quality of the project construction. First of all, the project bidding is the initial stage to ensure the quality of the project construction. In this stage, the bidding unit should strictly select the bidder according to the actual situation of the water conservancy project to ensure the quality of the bidding. Secondly, the construction unit in the construction process should be more good construction materials and construction equipment management work, to ensure the quality of materials and equipment, and then improve the construction safety and the overall quality of engineering construction. Finally, in the construction process, it is also necessary to do a good job in the construction progress management and construction operation supervision, to ensure that the actual construction progress conforms to the plan, and the construction operation complies with the requirements of the construction specifications. The construction unit is an important guarantee for the construction quality of water conservancy projects.

3.5 Establish and improve the project management system

Establishing and perfecting the supervision and management system is the foundation of agricultural water conservancy project construction, Effective maintenance and management system should be formulated according to the actual situation to carry out scientific and systematic management of agricultural water conservancy projects. After the completion of the water conservancy project construction, the management and maintenance efforts should be strengthened, and the maintenance work should be carried out regularly, and the equipment should be found and repaired or replaced in time when it is old or damaged. Regular and systematic training for management personnel to improve their professional level and professional quality. Traditional, the agricultural water conservancy management system can no longer meet the development needs of modern agriculture. In order to promote the agricultural water conservancy management to keep pace with The Times, the management personnel should timely find and analyze the problems encountered in the practical work, and constantly introduce new equipment, new talents and new technologies.

4. Conclusion

To sum up, water conservancy project construction is an important work content in the process of agricultural development in China, and plays an important role in the agricultural development in the region. Agricultural economy is an important part of China's national economy. The construction and management of agricultural water conservancy projects is related to the fundamental of agricultural development. In order to promote the development of agricultural economy, it is necessary to improve the construction and management level of water conservancy projects. The construction of agricultural water conservancy projects is the key to ensure and improve people's livelihood. To improve the comprehensive benefits of water conservancy projects, the construction and management plan must be optimized. The continuous development of agricultural modernization has put forward new requirements for the construction of agricultural water conservancy projects. We should fully understand the urgency and importance of agricultural water conservancy construction, take the construction of water conservancy projects as the key issue of agricultural development, and promote the sustainable development of agricultural economy and social economy.

References:

- [1] Zheng Hongyan. Problems and countermeasures in construction management of agricultural water conservancy projects [J]. Rural practical science and technology information, 2022 (008): 028.
- [2] Wang Haifeng. Analysis on the problems existing in the construction and management of agricultural water conservancy projects [J]. Building Materials and Decoration, 2020 (7).
- [3] Wang Yu. Analysis of irrigation and water conservancy projects [J]. Consumer Guide, 2019 (39): 291.

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