ISSN: 2414-1895

DOI: 10.6919/ICJE.202204\_8(4).0040

# Research on the Implementation Plan of High-standard Farmland Construction Projects

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### **Abstract**

High-standard farmland construction is an important way to ensure national food security, increase farmers' income, achieve the goal of building a moderately prosperous society in an all-round way, implement rural revitalization strategies, and promote rural modernization. This paper analyzes the main construction contents in the process of high-standard farmland construction and the benefits after the implementation of the project, to ensure that after the implementation of the project, the market competitiveness of agricultural products in the project area can be improved, industrialized management is promoted, and the purpose of increasing agricultural efficiency and farmers' income can be achieved. And can vigorously promote the construction of new socialist countryside.

# **Keywords**

High-standard Farmland Construction; Implementation Plan; Land Consolidation; Production Capacity.

### 1. Introduction

China is a large agricultural country with a large population and relatively insufficient arable land resources. The issue of food security is of paramount importance. Ensuring national food security is an important foundation for maintaining stable and rapid growth of the national economy and social stability. Accelerating the construction of high-standard farmland is of great strategic significance for improving the comprehensive agricultural production capacity, ensuring national food security and the effective supply of major agricultural products, improving the efficiency of arable land production and water resources utilization, and realizing the sustainable development of my country's agriculture. Ensuring national food security and increasing farmers' income is of great significance for realizing the goal of building a moderately prosperous society in an all-round way, implementing the rural revitalization strategy and promoting rural modernization. High-standard farmland construction, as an important measure of financial support for agriculture, plays an important role in promoting the process of rural reform and development.

By formulating and implementing the annual implementation plan for high-standard basic farmland construction, on the basis of comprehensively finding out the areas of various basic farmland that have been built and that can reach high standards through different remediation and construction measures, comprehensive consideration should be Construction conditions and capital guarantee capabilities, etc., make overall arrangements for the construction of high-standard basic farmland, clarify the annual construction tasks, implement construction areas and specific construction project plans, as well as fund implementation plans and various guarantee measures, in order to implement high-standard basic farmland construction and development. The above picture provides the basis for storage, supervision and assessment and other work.

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## 2. Introduction to the Project Area

The project area is located in Lintong District, Xi'an City, with geographical coordinates between 109°05'49"~109°27'50" east longitude and 34°16'49"~34°44'11" north latitude. The average temperature of Lintong District over the years is 13.5°C, the hottest month is July, the temperature is 26.9°C, the coldest month is January, the temperature is -0.9°C; The temperature is 8.5°C, and the annual average daily temperature is 10.9°C; the lowest in December is 9.6°C; the annual extreme maximum daily temperature is 41.9°C on June 21, 1966, and the annual extreme minimum daily temperature is February 5, 1969. -17.0°C. The maximum permafrost depth is 28cm, and the annual average rainfall is 575.82mm. The landform characteristics of the project area belong to the Weibei plain area, with deep soil layers and fertile soil. The project area mainly focuses on planting wheat, corn and other field crops, and is the main grain base in Lintong District. The arable land in the project area is about 68,000 mu. At present, the yield of farmland is low and unstable, and the cost of cultivation is high, but the potential for land development is great. By investing a certain amount of manpower and material resources in the construction of high-standard farmland, high-yield, high-efficiency and high-standard farmland can be built.

# 3. Constraints Analysis

#### 3.1 Farmland Infrastructure Standards are Not High

The backbone roads and water conservancy backbone networks in the project area are basically formed, but the development in the project area is extremely unbalanced. Compared with the specific requirements for the construction of high-standard farmland, there is still a big gap. It is difficult to repair and improve it with the power of the masses, which is very unfavorable for improving food production. We must increase investment to achieve high-standard agricultural infrastructure and consolidate the foundation for the efficient and sustainable development of the grain industry.

### 3.2 Technological Quality and Environmental Awareness Need to be Improved

Farmers tend to focus on production experience and planting habits, and focus on the yield and benefits of products, often ignoring the quality and safety of agricultural products and the protection of the environment. In addition, due to the limitation of conditions, the cultural quality of cultivators is generally low, resulting in a relatively low degree of promotion and utilization of new crop varieties and new technologies. new idea.

#### 4. Main Construction Content

The agricultural measures are the area of soil improvement, and the planned soil improvement is 2134.2 mu to improve soil fertility. 17 new machine wells were drilled, 2 machine wells were repaired, 22.1km of pipelines were laid, 232 water outlet piles were buried, and an irrigation area of 1,987 mu was controlled. There are 16 sets of electrical equipment for motor-driven wells, a total of 530m of 10kV transmission lines, and a total of 1,480m of low-voltage cables. 50 field canals were reconstructed, and the length of the lining canals was 29.67km, including 0.87km for D60U-type channels and 21.22km for D40U-type channels. There are 23 supporting canal buildings and 42 culverts. 21.9km of field roads are arranged, including 2.3km of hardened mechanized farming road and 19.7km of mud stone production road.

# 5. Comprehensive Benefit Analysis

In recent years, with the key support of higher-level departments and the great attention of the Lintong District Government and Party Committee, although the supporting level of agricultural infrastructure in some areas has been improved, there are still a considerable number of areas in which the farmland water conservancy facilities are all in the seventh and eighth century of the last century. It was built in the 1900s, and the degree of aging and damage is relatively serious, and the actual utilization rate of the land is relatively low.

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### 5.1 Economic Benefit Analysis

After the completion of the project, the newly improved planting area will be 2,000 mu; after the completion of the high-standard farmland in the project area, the irrigation water utilization coefficient of the project area can reach 0.85. Annually, 255,000 kg of new wheat, 304,000 kg of corn, 42,000 kg of new fruit, 26,000 kg of cotton, 90,000 kg of autumn miscellaneous items, and 90,000 kg of new crops can be added annually. The output value is 2.395 million yuan, and the sharing benefit of water conservancy irrigation is 1.053 million yuan.

### **5.2 Social Benefit Analysis**

After the project is completed, it can greatly improve the conditions of agricultural production, enhance the comprehensive agricultural production capacity of the project area, and promote and drive the development of grain production and modern agriculture in the whole county. The rural living environment will further develop the rural economy, make the society more stable, and strengthen the relationship between the party, the masses, the cadres and the masses. In order to further implement the scientific concept of development, promote the increase of farmers' income, and promote the construction of a new socialist countryside, it will have a far-reaching impact.

#### 5.3 Ecological Benefit Analysis

After the project is completed, the goals of smooth and fertile fields, supporting water conservancy facilities, smooth field roads, advanced and applicable technology, high quality, high yield and high efficiency can be achieved, and the microclimate of farmland can be improved. The improvement of farmland water conservancy facilities can improve the land utilization rate and crop multiple cropping index. The multiple cropping index in the project area is increased from 1.14 before the implementation of the project to 1.30.

#### 6. Conclusion

The project implementation area has superior social and economic environment conditions, abundant water resources, unique location advantages, and obvious industrial advantages; the project focuses on the construction of high-quality pollution-free crop bases, and strives to strengthen the construction of agricultural infrastructure, improve agricultural production conditions, and optimize agricultural production in the project area. The production structure will play an important role, the planning is scientific and reasonable, and the plan is feasible; the agricultural products in the project area are of good quality, the market is broad, and there are favorable conditions for obtaining good economic benefits. In short, it is feasible in terms of technology, economy, organizational management, environmental impact, etc., in line with the national comprehensive agricultural development investment policy and the spirit of the central, provincial and municipal agricultural and rural work conferences. After the implementation of the project, the market competitiveness of agricultural products in the project area can be improved. Promote industrialized operation, achieve the purpose of increasing agricultural efficiency and farmers' income, and vigorously promote the construction of new socialist countryside.

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