

The impact of ecological restoration on high-standard farmland construction projects

Yafei Ji

Shaanxi Provincial Land Engineering Construction Group Co.,Ltd., Xi 'an, Shaanxi
710075,China

Abstract

The farmland ecological environment restoration project is mainly a specific measure to promote the construction of high-standard farmland projects and facilitate the coordinated development of rural revitalization. In the construction of high-standard farmland, it is necessary to actively implement the ecological concept, strengthen environmental protection management, and minimize the damage to the surrounding ecological environment while carrying out agricultural production activities. This paper mainly explores how to implement the ecological concept in the construction of high-standard farmland, and proposes corresponding measures on the basis of analyzing its necessity.

Keywords

Ecological restoration; land consolidation; high-standard farmland; project construction.

1. Introduction

The construction of high-standard farmland is a key measure to consolidate and improve grain production capacity and ensure national food security. With increasing grain production capacity as the primary goal, the important contents of high-standard farmland construction are arable land protection, soil fertility improvement, and efficient water-saving irrigation. The significance of increasing grain production capacity. In the process of high-standard farmland project construction, the practice in most areas is the implementation of land leveling, road engineering, irrigation and drainage projects, and the overall consideration of high-standard farmland ecosystems is lacking to varying degrees, especially for project areas. Insufficient remediation and restoration measures in the areas where ecological degradation and ecological damage have occurred, seriously affecting the ecological environment and human settlements in the project area. Since the 18th National Congress of the Communist Party of China, the CPC Central Committee and the State Council have attached great importance to ecological protection and restoration, and have put forward a series of new concepts, new ideas and new strategies, especially Xi Jinping's ecological civilization thought, which has pointed out the way for holistic and systematic ecological protection and restoration. However, the application of ecological restoration projects in high-standard farmland construction is still in its infancy, and further research and application are needed.

2. Challenges and requirements for implementing ecological concepts in high-standard farmland construction

2.1. Challenges to Ecological Concepts

The construction of ecological high-standard farmland will promote the implementation of the rural revitalization strategy while promoting the transformation and upgrading of agricultural

modernization and increasing the income of farmers. However, due to the high standard farmland construction system

It is strong in nature, and there are still many deficiencies. It is necessary to further penetrate and strengthen the ecological concept in the construction. The construction of high-standard farmland in many areas lacks the concept of ecological environmental protection, the awareness of green development is weak, the idea of emphasizing construction and neglecting protection is deeply rooted, and corresponding ecological and environmental protection measures have not been selected. In the process of building high-standard farmland, imperfect and unreasonable engineering construction will lead to the destruction of local vegetation and the decline of soil fertility. After the construction of some high-standard farmland projects, the supporting management and protection measures have not been implemented, resulting in a shortened service life of the project. In addition, the supporting irrigation and drainage facilities are not perfect and cannot resist flood disasters, which seriously threatens the safety of people's lives and property.

Complete. Insufficient capital investment in the construction of high-standard farmland, insufficient application of new technologies and new processes, and slow construction and development of high-standard farmland.

2.2. Requirements of ecological concept for high-standard farmland construction

In the context of comprehensive agricultural development, we should take into account the requirements of agricultural production and management, promote the construction of high-standard farmland under the ecological concept, improve the quality and output of agricultural production, and facilitate the transformation and upgrading of agricultural production.

In the past, the farmland construction model has been unable to meet the development requirements of the ecological society. In the past, in order to increase production, a large number of pesticides and chemical fertilizers were used, which damaged the ecosystem to varying degrees and had an adverse impact on the development of agricultural modernization. In the context of comprehensive agricultural development, high-standard farmland construction follows the principle of harmonious coexistence between man and nature, respects nature, and protects nature. Implement the concept of environmental protection in agricultural development, highlight the content of environmental protection, solve problems such as soil pollution and water pollution in agricultural development, and ultimately achieve the goal of high-standard farmland construction while reducing environmental pollution. To implement the ecological concept, it is necessary to clarify the relationship between agricultural development and environmental protection, actively promote innovation and optimization of management and technology, avoid damage to the farmland ecosystem, and provide support and guarantee for the realization of high-standard farmland construction goals. To implement ecological principles in the process of high-standard farmland construction, it is necessary to give full play to natural advantages, integrate local natural resources and infrastructure, including farmland patterns, rivers and canals, etc., and follow the laws of nature to promote the construction and development of modern farmland.

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3. Problems existing in the application of ecological concepts in high-standard farmland construction

3.1. Neglecting the impact of engineering on the environment

In the construction of high-standard farmland, due to the influence of traditional thinking, people's awareness of green development is weak, and ecological management measures have

not been implemented. Vigorously building high-standard farmland can improve agricultural production conditions, but improper engineering construction will lead to damage to the ecological environment, which not only damages the environment, but also affects the productivity of farmland.

3.2. The project construction plan is unreasonable

In the construction of high-standard farmland, water-saving construction mainly refers to the construction of water conservancy projects in large and medium-sized irrigation areas. For the sake of aesthetics, the construction of high-standard farmland in some areas uses a large amount of concrete in the construction of irrigation and drainage canals, which inevitably damages the local agricultural ecosystem and runs counter to the ecological concept.

3.3. Heavy construction, light management

After the construction of high-standard farmland, the corresponding management and protection system was not established, and the later management and maintenance funds were insufficient, which led to the failure of some projects to be repaired in time after being damaged, the service life of the project was greatly shortened, and the ability to resist natural disasters was reduced. In addition, the imperfect agricultural production and management system has also seriously affected agricultural production.

4. The path of implementing the concept of ecological restoration in the construction of high-standard farmland

4.1. Promoting the transformation and upgrading of modern agriculture according to local conditions

Under the background of comprehensive agricultural development, actively infiltrate and implement the ecological concept in the construction of high-standard farmland, follow the principle of adapting measures to local conditions, integrate the elements of high-standard farmland construction, solve the problems in the current agricultural modernization production in a targeted manner, and help the transformation and upgrading of agriculture. Therefore, comprehensive agricultural development needs to adapt measures to local conditions, combine regional advantageous industries, create a more regional agricultural production model, actively promote the implementation of ecological concepts, and achieve the goal of high-standard farmland construction.

4.2. Overall planning and design, rational use of agronomic measures

To promote the construction of high-standard farmland under the ecological concept, it is necessary to fully investigate and analyze the regional agricultural production conditions, integrate resources, rationally use agronomic measures, and steadily realize the project construction activities. Combined with the requirements of agricultural modernization transformation and development, organically integrate ecological concepts, determine appropriate high-standard farmland construction goals and key and difficult contents, and follow the principle of adapting to local conditions to formulate targeted governance measures. While achieving high-standard farmland construction goals, minimize the impact on ecological adverse effects on the environment. Choose reasonable and effective agronomic measures. First, improve the land circulation system, actively promote land contiguous operations, and realize large-scale agricultural production. Secondly, strengthen the popularization and popularization of technology, especially pay attention to the popularization and application of new technologies and new processes. Improve the coverage of high-standard farmland varieties, and promote technologies such as pesticide reduction, pest control and pest control, and

improve farmland ecological environment based on high-standard farmland location, geological conditions, and production environment conditions.

4.3. Improve farmland facilities and comprehensively develop regional advantages

Under the new situation, to integrate the ecological concept into the construction of high-standard farmland, it is necessary to pay attention to the comprehensive development of regional advantages, promote comprehensive environmental management, promote the transformation and upgrading of the agricultural industry, and realize the integrated development of primary, secondary and tertiary industries. Combined with the current high-standard farmland construction requirements, the farmland water conservancy facilities have been actively improved, and the farmland irrigation facilities in some areas have been in disrepair, dampening the enthusiasm of farmers for agricultural production. Improving farmland water conservancy facilities can reduce the loss of water resources, contribute to the virtuous cycle of the water conservancy system, and facilitate the implementation of environmental protection measures.

4.4. Take engineering measures to actively carry out ecological restoration

Take measures to restore ecological environment according to local conditions and strengthen the construction of farmland ecological environment. To prevent soil erosion, protect field roads. A road protection forest belt is set up on the outside of the field roads built and restored in the project area, and the tree species are planted according to the local conditions. Carry out ecological restoration of some existing village roads, carry out comprehensive land remediation for some fields along both sides of the road, restore the ecological environment of ridges and slopes, and use plant slope protection technology to restore the ecological environment of the embankments in the trenches in the project area. Prevent soil erosion. In the villages involved in the project area, according to the actual needs, pay attention to beautifying the rural environment and clean up the road garbage; for the lack of the iconic archway of the village, add signs and guide signs with a guiding function. Ecological environment treatment is carried out at the adjustment pool planned and designed in the project area, hardening treatment is carried out on the upper part, and ecological environment restoration is carried out locally, and relevant patterns or slogans such as high-standard farmland construction are painted on the periphery of the adjustment pool. Protect water sources from pollution.

5. Concluding remarks

Under the background of agricultural modernization development, we should attach great importance to the construction of high-standard farmland, actively implement the ecological concept, establish a sound construction and management system, integrate advantageous resources, and improve the supporting infrastructure. At the same time, the level of farmland construction should maintain the balance of the ecosystem and promote the green development of agriculture.

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