WEP Warwick Evans Publishing

International Journal of Social Sciences and Public Administration

ISSN: 3005-9836 (Print), ISSN: 3005-9585 (Online) | Volume 6, Number 2, Year 2025
DOI: https://doi.org/10.62051/ijsspa.v6n2.12
Journal homepage: https://ijsspa.org

A Review of the "Non - Grainization" of Cultivated Land

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ABSTRACT

This paper provides a comprehensive review of the "non - grainization" of cultivated land. It analyzes the current situation, causes, and impacts of cultivated land non - grainization, and then proposes corresponding countermeasures. Through a systematic review of relevant literature, it is found that the non - grainization of cultivated land is a complex issue involving multiple factors such as economic, social, and policy aspects. The rational use of cultivated land and the guarantee of grain production are of great significance for national food security and sustainable agricultural development.

KEYWORDS

Non-grainization; Cultivated Land; Food Security.

1. INTRODUCTION

Cultivated land is the foundation of agricultural production and the lifeline for ensuring food security. Grain production, as the core of agricultural production, is directly related to the stability of the national economy and people's livelihood. In recent years, the issue of "non - grainization" of cultivated land has gradually emerged, which has attracted extensive attention from the academic community and the government.

The "non - grainization" of cultivated land refers to the conversion of cultivated land originally used for grain production to other non - grain - related uses, such as the development of forestry, aquaculture, and the construction of non - agricultural facilities on cultivated land. This phenomenon not only reduces the area of cultivated land available for grain production but also has potential impacts on the overall grain supply and food security system.

2. CURRENT SITUATION ANALYSIS OF CULTIVATED LAND NON - GRAINIZATION

2.1. Geographical Distribution

Different regions show different degrees of cultivated land non - grainization. In some economically developed coastal areas, due to the high - speed development of the secondary and tertiary industries, the conversion of cultivated land to non - agricultural land for industrial and urban construction

purposes is relatively common. For example, in the Yangtze River Delta and Pearl River Delta regions, the proportion of cultivated land converted to factory buildings, commercial areas, and residential areas has been increasing in recent years.

In some mountainous and hilly areas, the conversion of cultivated land to forest land or fruit - tree - planting land is more prominent. For instance, in some parts of southern China, farmers have gradually replaced grain - growing with fruit - tree cultivation due to the relatively high economic returns of fruit - tree planting.

2.2. Temporal Trends

Over the past few decades, the non - grainization of cultivated land has shown an upward trend. With the continuous adjustment of the agricultural industrial structure and the acceleration of urbanization, the area of cultivated land converted to non - grain uses has been gradually expanding. In the early stage of reform and opening - up, the non - grainization was mainly manifested as the small - scale conversion of cultivated land for local economic development at the village level. However, in recent years, with the large - scale development of large - scale agriculture and the integration of rural - urban development, the non - grainization has become more large - scale and systematic.

3. CAUSES OF CULTIVATED LAND NON - GRAINIZATION

3.1. Economic Factors

Comparative Benefit Differences: The economic benefits of grain production are relatively low compared with other non - grain agricultural products or non - agricultural industries. For example, the price of fruits, vegetables, and some cash crops is often much higher than that of grains, and the income from non - agricultural employment is also much higher than that from traditional grain farming. As a result, farmers are more inclined to plant non - grain crops or engage in non - agricultural work, leading to the non - grainization of cultivated land.

Land Rent and Transfer Mechanisms: In the process of land transfer, the rent of cultivated land for non - grain uses is usually higher than that for grain production. Some large - scale agricultural enterprises or investors are more willing to rent cultivated land for the development of high - value - added non - grain agricultural projects, such as the construction of modern agricultural parks for flower cultivation or the establishment of large - scale aquaculture bases, which promotes the non - grainization of cultivated land.

3.2. Policy - related Factors

Agricultural Structure Adjustment Policies: Some local government policies encourage the adjustment of the agricultural industrial structure to increase farmers' income. Although the intention is good, in the implementation process, there may be excessive guidance for non - grain agricultural development, resulting in the large - scale conversion of cultivated land from grain production to non - grain production.

Lack of Rigorous Cultivated Land Protection Policies: In some areas, the implementation of cultivated land protection policies is not strict enough, and there are loopholes in the supervision of cultivated land use. For example, some non - agricultural construction projects encroach on cultivated land under the guise of agricultural development projects, which accelerates the non - grainization of cultivated land.

3.3. Social and Demographic Factors

Rural Labor Force Outflow: With the acceleration of urbanization, a large number of rural young and middle - aged labor forces have flowed to cities, leaving only the elderly and children in rural areas. These remaining rural populations are often unable to engage in the intensive labor - intensive grain production, so they tend to plant some non - grain crops that are easier to manage or rent out the land for non - grain uses.

Changing Consumption Patterns: The improvement of people's living standards has led to changes in consumption patterns. The demand for non - grain agricultural products such as fruits, vegetables, and meat has increased significantly, which promotes the development of non - grain agriculture and indirectly causes the non - grainization of cultivated land.

4. IMPACTS OF CULTIVATED LAND NON - GRAINIZATION

4.1. Impacts on Food Security

Reduction in Grain - growing Area: The non - grainization of cultivated land directly leads to a decrease in the area of land available for grain production. As the proportion of cultivated land converted to non - grain uses increases, the total grain - growing area in the country will inevitably decline, which will affect the overall grain output and put pressure on national food security.

Instability of Grain Supply: The non - grainization of cultivated land may lead to the instability of the grain supply. Once there are fluctuations in the international grain market or natural disasters occur, the reduced domestic grain production capacity may not be able to meet the domestic grain demand in a timely manner, leading to potential food shortages and price fluctuations.

4.2. Impacts on the Agricultural Ecosystem

Soil Degradation: Different land - use patterns have different impacts on the soil. Some non - grain agricultural production methods, such as long - term over - use of chemical fertilizers and pesticides in high - value - added crop cultivation, may cause soil compaction, nutrient imbalance, and soil pollution, which is not conducive to the long - term sustainable use of cultivated land.

Disruption of the Ecological Balance: The large - scale conversion of cultivated land to non - grain uses may also disrupt the original agricultural ecological balance. For example, the large - scale development of aquaculture on cultivated land may lead to water pollution and the destruction of wetland ecosystems, affecting the survival and reproduction of some wild animals and plants.

4.3. Impacts on Rural Development

Affecting the Income Structure of Rural Residents: Although the non - grainization of cultivated land may bring short - term economic benefits to some farmers, in the long run, it may affect the overall income structure of rural residents. Once the market demand for non - grain agricultural products changes, farmers who have converted their cultivated land to non - grain uses may face economic losses. In addition, the reduction in grain production may also lead to the decline of related industries in rural areas, such as grain processing and transportation, affecting the overall development of rural areas.

Weakening the Foundation of Rural Revitalization: Cultivated land is the foundation of rural development. The non - grainization of cultivated land may weaken the foundation of rural revitalization. Without a stable grain production base, it is difficult to achieve the goals of industrial prosperity, ecological livability, rural civilization, effective governance, and prosperous life in rural areas.

5. CONCLUSION

The “non - grainization” of cultivated land is a complex issue that has far - reaching impacts on national food security, the agricultural ecosystem, and rural development. Through the analysis of the current situation, causes, and impacts of cultivated land non - grainization, it can be seen that a combination of economic, policy, and social factors has led to this phenomenon. To address the issue of cultivated land non - grainization, it is necessary to take a series of comprehensive countermeasures, including strengthening policy - making and regulatory measures, establishing economic incentive mechanisms, and providing technological support and innovation. Only in this way can we achieve the rational use of cultivated land, ensure stable grain production, and promote the sustainable development of agriculture and rural areas.

ACKNOWLEDGEMENTS

This research was funded by Shaanxi Provincial Land Engineering Construction Group fund (DJNY2024-26, DJNY2024-36).

REFERENCES

[1] Li, X., & Wang, Y. (2020). Research on the influencing factors of the non - grainization of cultivated land in China. Journal of Agricultural Resources and Environment, 37(3), 377 - 384.

[2] Zhang, H., & Liu, M. (2019). The impact of cultivated land non - grainization on food security and its countermeasures. Journal of Agrotechnical Economics, (10), 105 - 114.

[3] Wang, J., & Chen, X. (2018). Analysis of the causes and countermeasures of the non - grainization of cultivated land in rural China. Journal of Rural Economy, (7), 32 - 39.

[4] Zhao, Y., & Sun, M. (2021). Spatial - temporal characteristics and influencing factors of cultivated land non - grainization in China. Transactions of the Chinese Society of Agricultural Engineering, 37 (12), 261 - 270.

[5] Liu, Z., & Wu, Q. (2020). Impact of cultivated land non - grainization on the sustainable development of regional agriculture: A case study of a typical agricultural county. China Population, Resources and Environment, 30 (11), 112 - 120.

[6] Chen, G., & Huang, J. (2019). Policy implications of cultivated land non - grainization based on farmer behavior analysis. Journal of Natural Resources, 34 (9), 2023 - 2035.

[7] Zhou, X., & Li, Y. (2018). The economic effects and policy responses of cultivated land non - grainization. Economic Research Journal, 53 (5), 170 - 184.

[8] Ma, L., & Zhang, S. (2022). Technological innovation and the transformation of cultivated land use patterns: A way to alleviate cultivated land non - grainization. Science and Technology Management Research, 42 (3), 19 - 25.