

The Management and Efficiency of Cropland Use in Thai Nguyen Province

Part 2 - Methods To Investigate The Status Of Land Use Type Efficiency

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ABSTRACT: In this article, we refer to the management and efficiency of arable land in Thai Nguyen province, selected by the author as the object of analysis. The article's objective is to assess the current status of the management and efficiency of cropland use as a basis for orienting the management and use of the arable land fund in the future towards sustainable development. At the same time, determine the causes that change the arable land area. From there, propose solutions to improve the management efficiency and use of rice land in Thai Nguyen province. With the research objectives set out, the author organizes this research into five main parts as follows. Part 1: Some characteristics of land use type in Thai Nguyen province; Part 2: Methods to investigate the status of land use type efficiency; Part 3: Evaluation of Land Use Type efficiency; Part 4: Economic efficiency analysis of Land Use Type; Part 5: Analyze the impact of land use type on social life.

KEYWORDS: Cultivated land, rice land, land, crop

I. INTRODUCTION

The land is a precious national resource, a particular means of production, a great source of internal resources and capital of the country, an essential component of the living environment, and plays a significant role in agricultural production. In any country, the land is the primary means of agroforestry production and the territorial basis for the distribution of national economic sectors. Stabilizing the arable land area ensures food security and preserves the resource system, land value, and soil. If the arable land fund is fully exploited, there will be no more land for the development needs of future generations.

In recent years, along with the trend of globalization of the world economy, Vietnam's economy is developing more and more. Along with this movement and development, people increasingly use land resources to serve their interests. This leads to land degradation, reducing the sustainability of economic growth in general and in agriculture in particular. Facing the current situation, because the arable land area is decreasing, there is a risk of threatening national food security. The Ministry of Agriculture and Rural Development has proposed to apply the policy of tightening the management of the rice land fund. These policies have been mentioned in the rice development project to ensure national food security.

It minimized the conversion of currently used wet-rice land for non-agricultural purposes; encouraging the reclamation and expansion of rice-growing areas, and improved other rice-land into specialized wet-rice land. When making a plan, it is only allowed to transfer the currently used wet rice cultivation land for national defense, security, and public interest. A competent state agency must approve it. Rice land will be closely protected by the State and supported by many policies.

II. REALITY OF USE OF AGRICULTURAL LAND IN THAI NGUYEN AGRICULTURAL LAND USE SURVEY METHODS

Methods to investigate secondary data:

Collect information and data available from:

- Specialized departments of Thai Nguyen provinces.

- Related scientific and research works, books, and journals.

Primary data survey method

- Method of rapid rural assessment (RRA): through field trips to observe, interview officials and people to investigate the current status of land use, collect information related to life and situation agricultural production.

- Survey and interview with a set of prepared questions about investment costs for rice production/ha/year? Economic Value (how much...million VND/ha/year)? Institutions and policies: annual agricultural land tax? Constraints in land use for rice cultivation? Compared with other forms of land use such as afforestation, fruit trees, aquaculture... What are the advantages and disadvantages of production? Want to switch from rice land to another form? Specifically?

Data processing methods

- The statistics are processed by Excel software, map data is scanned and digitized on Microstation software.

- The results are presented by a system of data tables, charts and maps.

Method of calculating land-use efficiency

To calculate the economic efficiency of land use per 1 hectare of land of various types of land use (LUT) for agricultural production, the project uses a system of indicators:

* Economic efficiency:

+ Value of production (GTSX) is the total value of physical products and services created in a certain period, usually a crop (or a year). With crop systems, GTSX is the Value of output per unit area.

+ Intermediate costs (CPTG) are all material costs calculated in money involved in producing that good.

+ Value added (VAT) is the difference between production value and cost, the additional social product created in that production period.

$$VAT = VAT - CPTG$$

+ Net Income (TNT) is the Value obtained after deducting the total cost and labor wages. $TNT = VAT - (CPTG + TCLD)$

$$+ \text{Margin} = TNT * 100 / GTSX$$

* Social efficiency:

+ Level of labor attraction, job creation (work/ha)

+ Production value per labor (GST/Labor)

+ Income of farmers.

* Environmentally effective:

Through assessing the current soil fertility status under some types of research land use.

- Method of determining land characteristics based on natural conditions, irrigation conditions,

cadastral records (Cadastral maps to determine dominant rice-growing areas)...

- Expert method, consultation with experts, leaders of the Department of Natural Resources and Environment, Department of Agriculture and Rural Development, and good farmers in the provinces on land use rice cultivation in the area.

III. CONCLUSION

Land for rice cultivation is a particular means of production, playing a core role in ensuring food security. In the context that other land needs must be harmonized, in the face of rice land under a lot of pressure on the reduction in area and cannot be expanded further, it is essential to have solutions to manage, protect and control the land. Make full use of the base in each field, each acre of area.

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