Evaluating the Current Ecological Adaptability and Future Trends of Agricultural Land Use Systems for Spatial Orientation of Land Use Planning in Quoc Oai District, Hanoi.

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SUMMARY

Land evaluation in general and the effectiveness of ecological adaptability in particular are important parts of the process of land use planning, especially in agricultural land use. However, in Viet Nam, most research only focus on building land unit maps for land evaluation, which have not fully considered the interdependence of components in the assessment process. Thus, the effectiveness of evaluating ecological adaptability in land use system will allow to identify the interdependence of factors in the system (A land use system consists of a specified land utilization type practised on a given land unit, together with its associated inputs and outputs, FAO, 1984). Furthermore, Quoc Oai district is oriented to develop ecological village and high-tech agriculture in the construction master plan of Hanoi city. Quoc Oai district has a large area of agricultural land with 9090,86 hectares, accounted for 61.84 % of total area of natural land of district. The study identified 46 agricultural land use systems (LUS) which are based on 34 land units (LU) and 6 major land use types (LUT) in the Quoc Oai district. The research results evaluating the effectiveness of ecological adaptability in present and future allow the identification of land use systems in the district's agricultural production including: wet rice, rice- fish, fruit trees, cash crop, annual plants and forest (acacia). Fruit trees and wet rice are land use systems which have wide ecological adaptability area and the best effectiveness. LUS evaluation process can be applied to other districts which have an agricultural area in Ha Noi.