

# Sustainable Food Estate in the Peat Hydrological Unit

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## Abstract

The development of food estates in peatland ecosystems as an effort to increase food security and sovereignty is expected to reduce the level of dependence between the central and local governments. But in fact, the failure of technical and non-technical aspects in its implementation increases dependence both socio-culturally, economically, human resources, and the environment. Neoliberal policies and industrial agricultural approaches through peatland clearing and large-scale cultivation of food commodities have proven to eliminate biodiversity and cause a very detrimental multiplier effect. Therefore, a comprehensive peat-friendly approach is needed in the development of peatland food commodities that are socially acceptable, economically feasible and in accordance with ecological conditions. This study aims to conceptualize a food estate development model through increasing the scale of food commodities produced from sustainable livelihoods. There are four stages in the preparation of the model concept, namely identifying the livelihoods of natural resource-based communities that produce food commodities by the triangulation method, analysing the suitability between arable land for community livelihoods and land typology in peat hydrological units using the overlay method, analysing the sustainability of community livelihoods using the Rap-livelihood method, and analysing the increase in scale of superior food commodities that qualified economies of scale. Through the implementation of the cluster concept and people's economic institutions, a sustainable food estate development model concept is formed that is suitable for peatland ecosystems.

**Keywords:** food estate, sustainable community livelihoods, scale up, economies of scale, rap-livelihood.