



INTISARI

Sistem pertanian alami dilestarikan secara berkelanjutan untuk menunjang petani memiliki hak hidup adil, berkualitas dan menjaga lahan pertaniannya serta dapat menyediakan sumber pangan alami. Penelitian bertujuan untuk (1) Mengetahui persepsi petani tentang prinsip-prinsip sistem pertanian alami padi ladang di Pulau Morotai, (2) Mengetahui kesediaan melestarikan sistem pertanian alami padi ladang, (3) Mengetahui indeks keberlanjutan dimensi sosial budaya, ekonomi dan lingkungan pada sistem sistem pertanian alami padi ladang, (4) Mengetahui pengaruh persepsi petani tentang prinsip-prinsip sistem pertanian alami dan kesediaan melestarikan sistem pertanian alami padi ladang terhadap keberlanjutan sistem pertanian alami padi ladang. Penelitian dilaksanakan di Pulau Morotai Propinsi Maluku Utara. Pemilihan daerah penelitian dilakukan secara sengaja (*purposive*) dan penentuan petani sebagai responden sampel dilakukan secara *random sampling*. Analisis data persepsi petani dan kesediaan melestarikan menggunakan rerata tertimbang dan dibantu oleh alat analisis SPSS 22, analisis keberlanjutan sistem pertanian alami menggunakan *farmers sustainability index* (FSI) dengan alat analisis *Multidimensional Scaling* (MDS)-RAPFARM dan pengaruh persepsi dan kesediaan melestarikan terhadap keberlanjutan sistem *pertanian alami* padi ladang digunakan analisis *Struktural Equation Modeling* (SEM) lisrel 8.70. Dapat disimpulkan bahwa (1) Petani memiliki persepsi sangat baik tentang prinsip-prinsip sistem pertanian alami. Petani di Pulau Morotai memiliki persepsi bertani yang sangat alami sebagai pandangan hidup yang dibentuk oleh kebiasaan turun temurun dari penyiapan lahan tanpa olah tanah, tanpa menggunakan senyawa kimia sintetis tanpa menggunakan benih hibrida, tidak menggunakan sistem pengairan secara intensif. (2) Petani di wilayah perbatasan Pulau Morotai bersedia melestarikan sistem pertanian alami padi ladang dengan nilai WTPr 72,31 % berdasarkan prinsip-prinsip pertanian alami mencakup lahan tetap alami tanpa bahan kimia sintetis, dalam bertani tetap memilih menggunakan benih lokal alami tanpa rekayasa genetik, sumber pangan alami untuk ketersediaan pangan aman konsumsi sepanjang waktu, dan jerami sebagai input bahan alami yang mampu mengembalikan tingkat kesuburan lahan secara alami, (3) Sistem pertanian alami padi ladang di wilayah perbatasan Pulau Morotai memiliki prinsip-prinsip sistem pertanian yang berkarakter unik (spesifik) merupakan sistem pertanian berkelanjutan secara holistik baik secara ekonomi, sosial budaya dan lingkungan dengan nilai indek komposit 72,15 %, (4) Persepsi petani tentang sistem pertanian alami merupakan faktor yang berpengaruh positif terhadap keberlanjutan dimensi sosial budaya dan dimensi lingkungan, namun tidak berpengaruh terhadap keberlanjutan dimensi ekonomi. Kesediaan melestarikan kearifan sistem pertanian alami menjadi faktor yang berpengaruh terhadap keberlanjutan dimensi ekonomi dan sosial budaya, namun tidak berpengaruh terhadap keberlanjutan dimensi lingkungan

Kata Kunci: Keberlanjutan, Pertanian Alami, Padi Ladang, Pulau Morotai.



ABSTRACT

The natural farming system should be preserved to support farmers to get their right to a fair and quality life while preserving land capability to provide essential food resources. This study aims to: 1) determine farmers perceptions about the principles of the natural farming system of dryland paddy cultivation on Morotai Island, 2) knowing the willingness to preserve the natural farming system of dryland paddy cultivation, 3) knowing the socio-cultural, economic and environmental dimensions of sustainability in the natural farming system of dryland paddy cultivation, (4) determine the influence of farmers' perceptions about the principles of the agricultural system and willingness to preserve the natural farming system of dryland paddy cultivation towards the sustainability of this cultivation system. The research area was purposively selected, and the determination of farmers as sample respondents was carried out by random sampling. The weighted average was used to analyze farmers' perceptions and willingness to preserve the natural farming system that computed by the SPSS 22. Meanwhile, the farmer sustainability index (FSI) was processed by multidimensional scaling (MDS)-RAPFARM analysis. Furthermore, the LISREL Structural Equation Modeling (SEM) analysis 8.70 was employed to analyze the effect of perceptions and willingness to preserve the natural farming system toward the sustainability of dryland paddy cultivation. It can be concluded that: 1) farmers have an excellent perception of the principles of the natural farming system—farmers on Morotai Island have a very natural perception of farming as a way of life that shaped by the hereditary habits of land preparation without tillage, without using synthetic chemical compounds, without using hybrid seeds, not using intensive irrigation systems. 2) farmers in the border area of Morotai Island are willing to preserve the natural farming system of dryland paddy cultivation with a WTP_r value of 72.31% based on the principles of natural farming including processing land without synthetic chemicals, use local seeds without genetic engineering, natural food sources are available for safe consumption at all times, and return straw back to the land to restore the level of land fertility; (3) dryland paddy farming system in the border region of Morotai Island has unique principles which is a holistically sustainable farming system both economically, socio-culturally and environmentally with a composite index value of 72.15%; (4) farmers perceptions about the local wisdom of the natural farming system are factors that have a positive influence on the sustainability of the socio-cultural and environmental dimensions, but it does not affect the economic dimension—on the other hand, the willingness to preserve the wisdom of the natural farming system is a factor that affects the sustainability of economic and socio-cultural dimensions, but it does not affect the environmental dimension.

Keywords: dryland paddy cultivation, Morotai island, natural farming, sustainability.