Yuzuncu Yil University
Journal of Agricultural Sciences
(Yüzüncü Yıl Üniversitesi Tarım Bilimleri Dergisi)
https://dergipark.org.tr/en/pub/yyutbd

ISSN: 1308-7576 e-ISSN: 1308-7584

Research Article

Comparison of The Contribution of Rotational Land Management of Inheritance and Ownership Systems to Agricultural Sustainability

Nurdin MAPPPA[1], Ardi RUMALLANG*[2], Akbar AKBAR[3], Jumiati JUMIATI[4], Saleh MOLLA[5] Hamed NOROLLA[6]

[1,2,3,4,5]Study Program of Agribusiness, Faculty of Agriculture, Muhammadiyah Makassar University, Jln. Sultan Alauddin, No. 259, Gunung Sari, Makassar, 90221, Indonesia
[6]Omdurman Islamic University, Omdurman Abuseeds, Main Campus, Khartoum, Al-Khartoum, P.O. Box 382, Postal Code 14415, Sudan

[1]http://orcid.org/0000-0001-6542-8671, [2]https://orcid.org/0000-0002-1025-3277, [3]https://orcid.org/0000-0002-7860-8871
[4]https://orcid.org/0000-0001-7677-9151, [5]http://orcid.org/0009-0004-1807-1461, [6]https://orcid.org/0009-0000-2633-6846

*Corresponding author e-mail: ardi.rumallang@unismuh.ac.id

Article Info

Received: 30.12.2024
Accepted: 08.11.2025
Online published: 15.12.2025
DOI: 10.29133/yyutbd.1604541

Keywords

Agriculture,
Inheritance,
Sustainability,
Systems,
Tenure

Abstract: There are several ways of controlling agricultural land, especially in Indonesia, such as the inheritance system, ownership. This land tenure is closely related to the sustainability of agriculture in economic, social and ecological aspects. Especially in Tombolopao District, Gowa Regency, farmers carry out rotating land management patterns and ownership systems. This study aims to analyze the comparison of the contribution of rotating agricultural management patterns of inheritance systems with ownership systems to agricultural sustainability from economic, social and ecological aspects. Determination of informants is done by snowball, data collection techniques through interviews, data analysis using qualitative and quantitative descriptive analysis. The results showed that the inheritance system has a B/C ratio of 2.1 and an R/C ratio of 3.1, which indicates that this system is economically profitable and provides wider employment because it involves many heirs. From a social aspect, the inheritance system emphasizes mutual cooperation and knowledge transfer between generations, which strengthens social ties. On the other hand, the proprietary system has a B/C ratio of 1.9 and an R/C ratio of 2.9, indicating that it is also economically viable but with lower efficiency. The proprietary system provides full management flexibility for the owner, but tends to lack in social contribution. In terms of ecology, the legacy system maintains the biodiversity and quality of the forest.

To Cite: Mapppa, N, Rumallang, A, Akbar, A, Jumiati, J, Molla, S, Norolla, H, 2025. Comparison of The Contribution of Rotational Land Management of Inheritance and Ownership Systems to Agricultural Sustainability. *Yuzuncu Yil University Journal of Agricultural Sciences*, 35(4): 659-669. DOI: https://doi.org/10.29133/yyutbd.1604541

1. Introduction

Agriculture plays a pivotal role in Indonesia's national economy, particularly in rural regions where it constitutes the primary source of livelihood and sustenance for many communities (Yusriadi, 2024). evertheless, the sustainability of this sector is increasingly threatened by complex challenges, especially those related to land management, inheritance, and ownership systems (Fuetsch, 2022; Sudomo et al., 2023). Agricultural sustainability is fundamentally tied to practices that fulfill current food demands without compromising the capacity of future generations to meet their own needs (Terán-