

Research Insight

Open Access

Discussion on the Operational Model of Modern Agricultural Service Centers in Socialized Rice Production Services

Xinfeng Ren¹, Yaqin Ren^{1,2} ✉¹ Shaoxing Shangyu Weilu Ecological Agriculture Development Co., Ltd., Shaoxing, 312352, Zhejiang, China² Zhejiang Agronomist College, Hangzhou, 310021, Zhejiang, China✉ Corresponding author: 2898418581@qq.comBioscience Methods, 2026, Vol.17, No.3 doi: [10.5376/bm.2026.17.0014](https://doi.org/10.5376/bm.2026.17.0014)

Received: 13 Apr., 2026

Accepted: 18 May, 2026

Published: 02 Jun., 2026

Copyright © 2026 Ren and Ren, This is an open access article published under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Preferred citation for this article:

Ren X.F., and Ren Y.Q., 2026, Discussion on the operational model of modern agricultural service centers in socialized rice production services, Bioscience Methods, 17(3): 169-187 (doi: [10.5376/bm.2026.17.0014](https://doi.org/10.5376/bm.2026.17.0014))

Abstract Modern agricultural service centers are becoming increasingly important in China's rice sector because they help solve a practical problem that many rural regions now face: rice production still matters, but the traditional household-based way of organizing it is under growing pressure from labor transfer, aging farm populations, fragmented land, tighter operation windows, and rising quality requirements. Focusing on Mashan Agricultural Service Center in Shangyu District, Zhejiang Province, this paper discusses how a modern agricultural service center operates in socialized rice production services and why such a model matters for contemporary agricultural modernization. The study combines policy documents, recent academic literature, and descriptive case materials from Mashan, including project briefs and field-based operational records. Rather than treating the center as a simple site for machinery storage, the paper analyzes it as a regional service platform that links centralized seedling cultivation, machinery dispatch, full-process trusteeship, drying and postharvest handling, technical guidance, and market-oriented branding. The results suggest that the practical value of a modern agricultural service center lies in organizational coordination. Its core contribution is to connect small-scale farmers with standardized, timely, and professionally managed production services without requiring every household to independently invest in costly facilities and equipment. The Mashan case shows that such centers can improve production efficiency, reduce labor burdens and transaction costs, strengthen emergency response under typhoon and harvest pressure, support greener and more standardized production, and create a foundation for regional rice brands. At the same time, their operation still faces constraints, including high capital intensity, shortages of skilled technical personnel, uneven service uptake across different farmer groups, limited digital management capacity, and growing climate risks. The paper argues that future development should focus on stronger regional coordination, useful digital tools, systematic talent training, deeper integration of postharvest and branding functions, and more explicit emergency-service design. In this sense, the modern agricultural service center is not just a service facility. It is an institutional bridge between smallholder farming and a more resilient, efficient, and quality-oriented rice production system.

Keywords Modern agricultural service center; Socialized agricultural services; Rice production; operational model; Zhejiang Province

1 Introduction

China's rice production is changing in a way that is both familiar and easy to underestimate. Rice remains a strategic staple crop, but the conditions under which it is produced are no longer the same as those that shaped the traditional household farming model. Rural labor has continued to move into non-farm sectors, the average age of those remaining in agriculture has risen, production costs have gone up, and farmers often manage multiple scattered plots rather than one unified operational unit. At the same time, public policy has become more demanding rather than less demanding: local agriculture is now expected not only to keep grain output stable, but also to become more efficient, greener, more standardized, and more responsive to market quality preferences (Tang et al., 2022). In rice farming, where missing a transplanting or harvesting window can have immediate consequences, these structural shifts have made the organization of services almost as important as the organization of land.

This is the context in which agricultural socialized services have expanded. In the Chinese setting, these services usually refer to specialized production services supplied by cooperatives, service organizations, agricultural