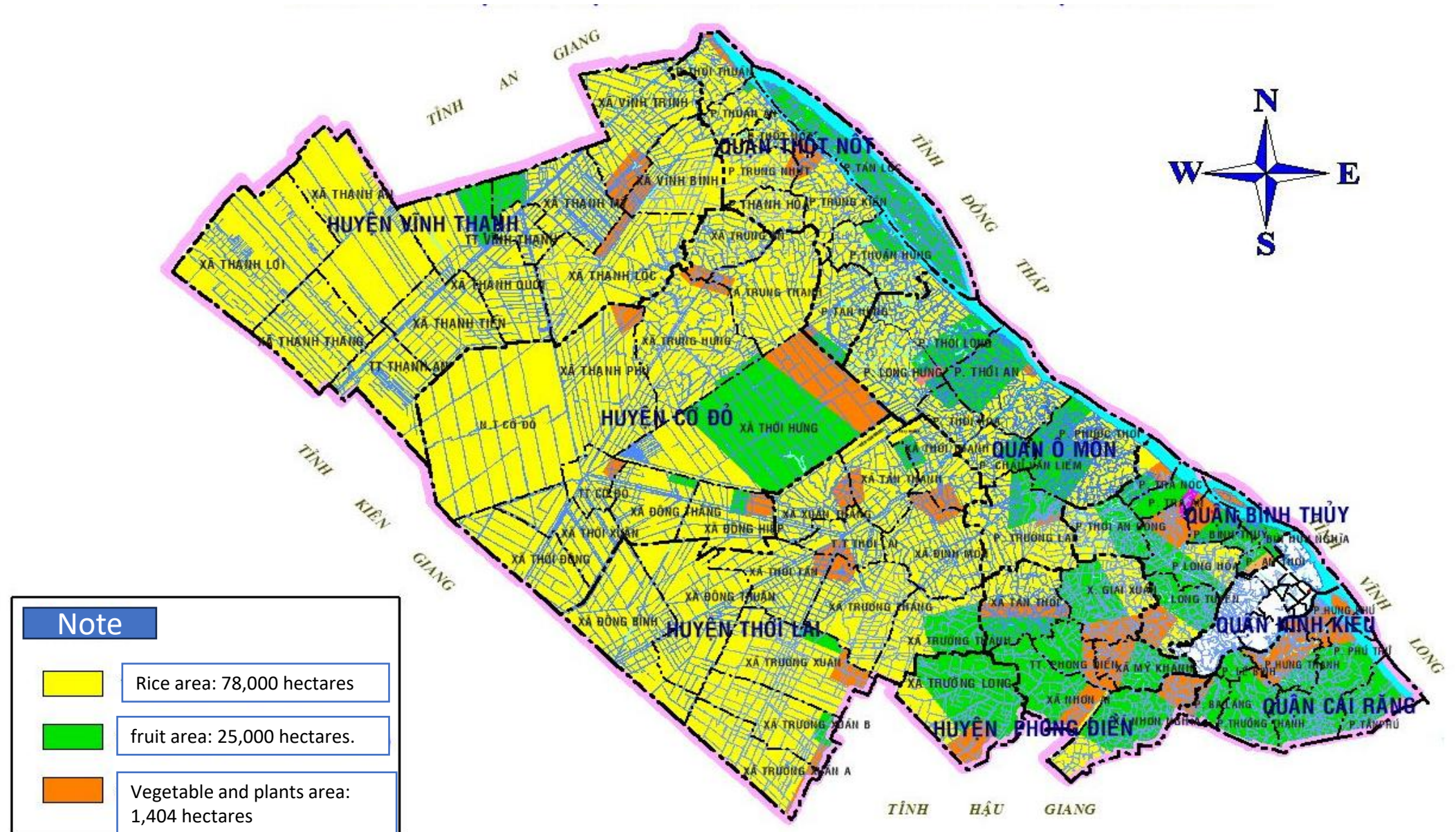


EXPERIENCES IN IMPLEMENTING CIRCULATORY AGRICULTURE IN CAN THO CITY



Can Tho, Oct 10, 2024

OVERVIEW OF CULTIVATION PRODUCTION IN CAN THO CITY



CURRENT STATUS OF RICE PRODUCTION

Amount of rice seeds sown: 80-120 kg/ha

Pure nitrogen fertilizer: 90 -100 kgN/ha

95% of farmers use certified, high-quality seeds



IRRI supports sowing with machines combined with burying manure, reducing the number of fertilization times to 2 times/crop and the amount of N to 80kg/ha, reducing the amount of seeds sown to 60 kg/ha



Using biological pesticides accounts for 10-15%, using organic fertilizers 8%.

IRRI supports the installation of automatic field water sensors to help farmers manage water better



The application rate of alternating wet and dry irrigation solution reached 80.5%



POST HARVEST STRAW MANAGEMENT

Calculated for Winter-Spring



Collect straw using a rate of 50-60%.



Plow 20-30%




Copper burning 10-30%



Rice production

- Reduce inorganic fertilizers
- Increase income from organic value and reduce emissions



Cultivating other crops



Straw


- Create organic sources
- Increase salary



Organic substrate and fertilizer
(integrating mechanization and biotechnology to optimize the decomposition process)



CIRCULATORY AGRICULTURE



Collection
(mechanized rolling of wet and dry straw)



Growing mushrooms

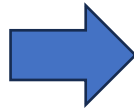




Business model - Cooperative of fertilizer products from straw That Not, Can Tho



Cow manure



NEW GREEN FARM COOPERATIVE GROUP

SYNTHETIC ORGANIC SUBSTITUTES

NUTRITION FOR PLANTS, COMPOSTED, CLEAN OF DISEASE GERD

INGREDIENT: Rice and compressed cow manure, ooc peat, rice husk ash, fermentation, beneficial microorganisms.

USER MANUAL: Urban agriculture, net house: Put the substrate in the pot tray, spread evenly, the thickness of the substrate layer is 3-5cm from the pot's mouth. Then sow seeds directly or plant sprouted seedlings, water regularly to maintain moisture 1-2 times/day.

USE: Makes a clean, safe substrate suitable for all types of plants. Create a well-ventilated, moist environment to help plant roots grow well. Provides beneficial microorganisms to improve soil and increase soil fertility.

SAFETY AND STORAGE: Environmentally friendly. Preserved in dry, cool place.

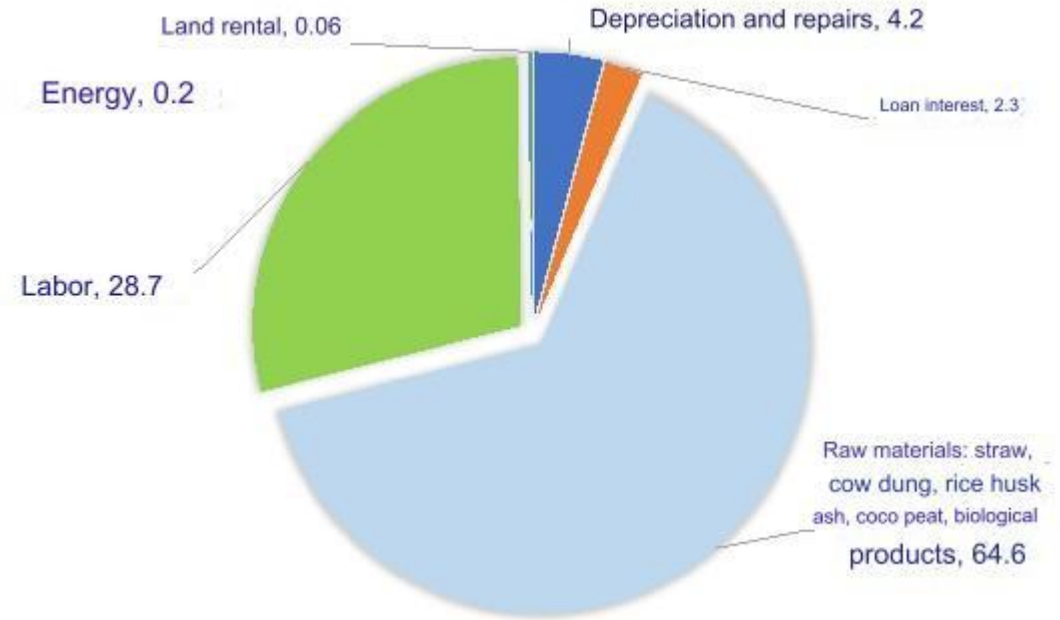
NEW GREEN FARM COOPERATIVE GROUP
Address: Tan Phuoc, Tan Hung Ward, That Not District, City, Can Tho Phone: 0888 588 854 or 0939 932 369

Net weight: 20kg



Economic efficiency of mechanized straw processing as organic fertilizer

Cost of organic fertilizer production: 2.56 million/ton
The components:



- Productivity: 42 tons/cycle * 10 cycles = 420 tons/year
- Mixer investment cost: 141 million, 7-year depreciation
- Investment in 25HP tractor, 305 million, 20 year depreciation

| Parameter | Unit | Corresponding fertilizer selling price is 3,000,000 VND/ton | Corresponding fertilizer selling price is 3,500,000 VND/ton |
|-------------------------------|----------|---|---|
| Total gain | Mil/year | 1.260 | 1.470 |
| Total cost | Mil/year | 1.103 | 1.103 |
| Net profit | Mil/year | 156 | 366 |
| Payback time | Years | 3,2 | 1,37 |
| IRR (internal rate of return) | | 17 | 67,6 |



Xây dựng mô hình kinh doanh tại địa phương
Business model developments



Hội thảo tập huấn chuyển giao kỹ thuật
Capacity building and technology transfer



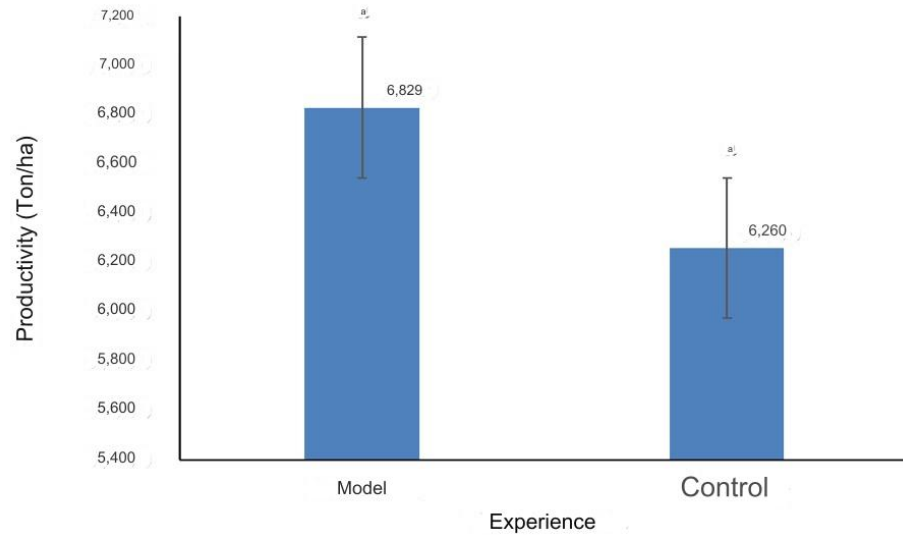
Thương mại hóa sản phẩm
product commercialization

Evaluating the effectiveness of straw treatment using mechanization as an organic growing medium on rice Can Tho

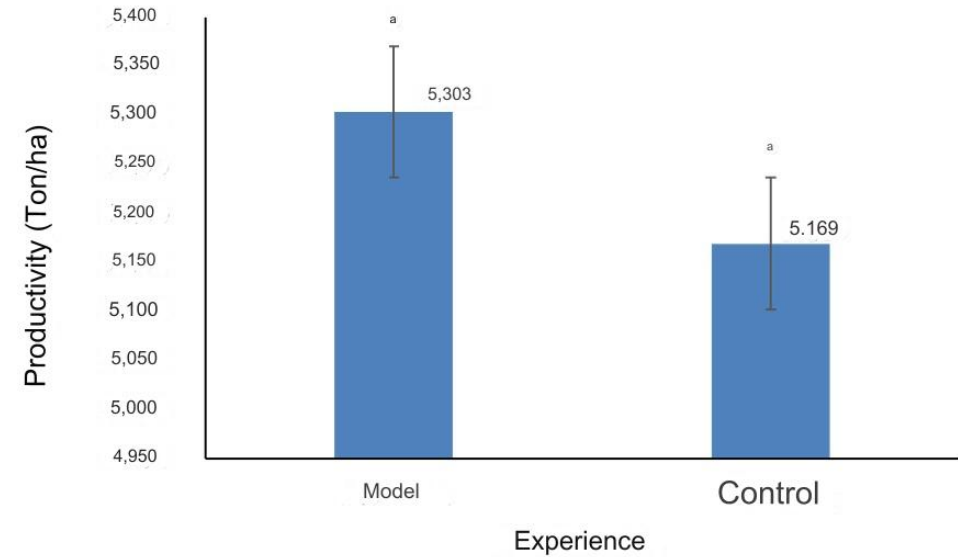


| Fertilizer | Organic farming model | (non-organic) |
|-------------------------------|-----------------------|---------------|
| Organic from straw (tons/ha) | 1 | 0 |
| N | 54 | 109 |
| P ₂ O ₅ | 39,7 | 77,7 |
| K ₂ O | 29,9 | 52,1 |

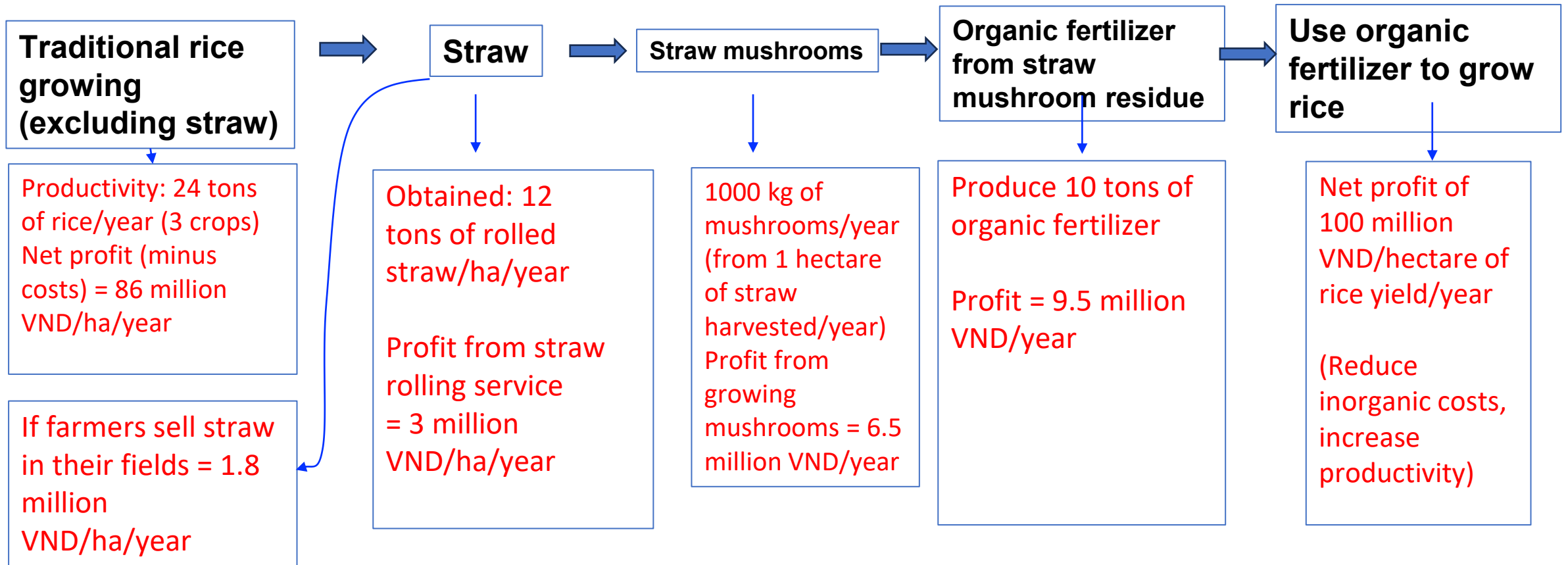
Rice yield in Winter - Spring crop 2022-2023 (Ton/ha)



Summer-Autumn crop yield 20223 (Ton/ha)



Calculate the economic turnover for 1 hectare of rice,
Calculate the net profit/ha/year



- Total added value from straw (rolling straw + growing mushrooms, making organic fertilizer from straw mushroom residue, growing rice using organic fertilizer) = $3 + 6.5 + 9.5 + (100 - 85.5) = 33.5$ million/ha/year (equivalent to about 35-40% of rice farming income (excluding straw))
- The total income of the whole chain from growing rice to organic fertilizer and using organic fertilizer is $33.5 + 100 = 133.5$ million VND/ha/year.

- Clip New Green Farm

GOAL OF CAN THO AGRICULTURAL INDUSTRY IN DEVELOPING CIRCULATORY AGRICULTURE



Reduce negative impacts on the environment through many measures

DEVELOPING A CIRCULAR ECONOMY MODEL - DUPLICATION

HUMAN BEHAVIOR
COOPERATIVE

NEW GREEN FARM Cooperative

500 m²

2,500 m²

Mở rộng quy mô

Replication

TIEN THUAN COOPERATIVE



PROPOSE

- Replicate the circular economy model from straw in rice production areas of Can Tho City.
- There is a need for coordination and support from the Department of Crop Production and international organizations (IRRI, GIZ...) in replicating and developing the circular economy model from straw and replicating the low-emission rice production model. in the 1 million hectares project.
- Can Tho plans to replicate the circular economy model from straw for more than 30 cooperatives with 15,000 farmers to access and benefit in the first phase of implementing the project of 1 million hectares of high-quality, low-emission rice.

An aerial photograph of a vast, lush green rice field. In the lower-left foreground, a red combine harvester is actively harvesting, leaving behind neat rows of cut rice. The field is divided into rectangular plots by narrow paths. In the far distance, a line of trees and some small buildings are visible under a clear, bright sky. The overall scene is vibrant and peaceful, capturing the essence of agricultural work.

THANK YOU