

## Table of Contents

Technologies	Contribution areas	Commodities	Status	Pages
<b>“Prolonged midseason drainage” in paddy fields for maintaining agricultural production and decreasing greenhouse gas emissions</b>	GHG emission reduction	Paddy rice	Implementation	1
<b>Greenhouse gas emission reduction technology with the combination of biogas effluent application and multiple drainage in a rice paddy</b>	GHG emission reduction	Paddy rice	Demonstration	2
<b>A method to estimate the reduction in life cycle greenhouse gas emissions from rice cultivation caused by the use of alternate wetting and drying</b>	GHG emission reduction	Paddy rice	Demonstration	3
<b>Energy-saving low-carbon technology in greenhouse horticulture utilizing thermal energy in irrigation canals</b>	GHG emission reduction	Greenhouse horticulture	Demonstration	4
<b>Improved CO<sub>2</sub> recovery and application equipment to reduce greenhouse gas emissions and increase productivity in greenhouse horticulture by utilizing exhaust gases from heating and cooling equipment</b>	GHG emission reduction Labor productivity enhancement	Greenhouse horticulture	Demonstration	5
<b>Technologies for reducing greenhouse gas emissions from livestock waste</b>	GHG emission reduction	Livestock	Demonstration and implementation	6
<b>Mitigation of methane emissions from local cattle using cashew nut shell liquid feeding</b>	GHG emission reduction	Livestock	Implementation	7
<b>A simple and accurate method for estimating soil carbon sequestration using biochar based on proximate analysis</b>	GHG emission reduction Biomass utilization	Bamboo	Demonstration	8
<b>Utilization by “Multi-Biomass Treatment Process” of unused biomass discharged from the palm oil industry</b>	GHG emission reduction Biomass utilization	Oil palm	Demonstration	9
<b>Low-cost, high-efficiency production of CH<sub>4</sub> and H<sub>2</sub> from agricultural residues through microbial saccharification and bio-methanation</b>	GHG emission reduction Biomass utilization	Agricultural residues	Demonstration	10
<b>A new F<sub>1</sub> high-sugar, high-biomass sorghum variety “ENRYU” supports decarbonization efforts</b>	GHG emission reduction Biomass utilization	Sorghum	Implementation	11
<b>Biological nitrification inhibition maintains wheat yield with reduced nitrogen fertilizer application</b>	GHG emission reduction Chemical fertilizer reduction	Wheat	Demonstration	12

<b>"Paddy Field Dam" that reduces flood damage downstream while maintaining agricultural production</b>	Climate disaster mitigation	Paddy rice	Implementation	13
<b>Monitoring saline intrusion in rivers near paddy fields using satellite data</b>	Climate disaster mitigation	Paddy rice	Demonstration	14
<b>"Disaster prevention support system for irrigation pond" to predict flood risk and share disaster information</b>	Climate disaster mitigation	Disaster prevention	Implementation	15
<b>Underdrain-drilling machine "Cut Drain": Easy construction of subsurface drainage without additional materials</b>	Climate disaster mitigation	Field crop	Implementation	16
<b>The "Cut-Soiler" tractor attachment easily constructs shallow subsurface drainage systems using agricultural residues such as rice and wheat straw</b>	Climate disaster mitigation Biomass utilization	Field crop, Agricultural residue	Demonstration	17
<b>International differential system to protect the rice production against rice blast diseases</b>	Chemical pesticide reduction	Rice	Demonstration	18
<b>Controlling disease in paddy rice seeds using hot water disinfection combined with pre-drying</b>	Chemical pesticide reduction	Paddy rice	Implementation	19
<b>Propagation and distribution system of healthy seedcane as control measures against sugarcane white leaf disease</b>	Chemical pesticide reduction	Sugarcane	Implementation	20
<b>Strawberry disease control with heat shock treatment</b>	Chemical pesticide reduction	Strawberry	Demonstration	21
<b>Smart production systems contributing to productivity improvement in paddy rice cultivation</b>	Labor productivity enhancement	Paddy rice	Demonstration and implementation	22
<b>Smart agricultural machinery in compliance with the Common Communications Standard (ISOBUS)</b>	Labor productivity enhancement	Agricultural machinery	Demonstration and implementation	23
<b>A simple shoot-tip grafting practical method for virus-free passion fruit propagation at the farm level</b>	Labor productivity enhancement	Passion fruit	Implementation	24
<b>Removing seed coat tissues improves the germination rate, enabling seedling propagation to achieve the planned management of sago palms</b>	Labor productivity enhancement Resource management	Sago palm	Implementation	25
<b>Information and communication technology-based water management system for reducing agricultural water usage, agricultural labor, and electricity</b>	Resource management Labor productivity enhancement	Paddy rice	Implementation	26
<b>Identification of wood species and provenance of timber to promote trade of legal timber</b>	Resource management	Timber	Demonstration and implementation	27
<b>A simple calculation method of biological</b>	Resource	Blood cockles	Demonstration	28

<b>indices for blood cockle resource management through aquaculture fishing ground selection and harvest time determination</b>	management			
<b>Utilizing coconut fiber for the recovery of tropical sea cucumber resources</b>	Resource management	Tropical sea cucumber	Demonstration	29
<b>Smartphone application to collect coastal fisheries and environmental information for adaptation to changes in the marine environment (FishGIS)</b>	Resource management	Fisheries	Demonstration	30
<b>ToroCam: A smartphone application for rapid collection of total length data required for fish stock assessment</b>	Resource management	Fisheries	Demonstration	31
<b>An improvement method of selective logging criteria for dipterocarp timber species to maintain healthy tropical rainforests</b>	Resource management Forest conservation	Dipterocarp timber	Demonstration	32
<b>Easy-to-do monitoring method for soil erosion risk to maintain high productivity and water and soil conservation functions of forests</b>	Forest conservation	Forest	Implementation	33
<b>TPJ04-768: A new sugarcane cultivar with high fiber (bagasse) productivity</b>	Biomass utilization	Sugarcane	Implementation	34
<b>JES1: A new <i>Erianthus</i> cultivar for biomass production</b>	Biomass utilization	<i>Erianthus</i>	Implementation	35
<b>Aquaculture feed with the black soldier fly larvae easily grown from fruit residues as a protein source</b>	Biomass utilization	Freshwater aquaculture fish	Demonstration	36
<b>A new aquaculture method of giant tiger prawn to improve profitability by utilizing unused biological resources as supplementary live feeds</b>	Biomass utilization	Penaeidae	Demonstration	37
<b>Simple and highly sensitive detection kits for foot-and-mouth disease virus that can be used in the Asia-Monsoon region</b>	Transboundary disease prevention	Livestock	Implementation	38
<b>Simple and rapid diagnostic technology that can be used in the field to enable early quarantine measures for foot-and-mouth disease</b>	Transboundary disease prevention	Livestock	Demonstration	39
<b>Maintaining an acidic condition can prevent liquefaction of fermented rice noodles</b>	Food loss reduction	Fermented rice noodles	Implementation	40