Terms of Reference

Consultancy: SRP Economic Performance Evaluation and Integrated Regenerative Agriculture Research

Location: Dong Thap Province, Vietnam
Implementation Period: 12 months

1. Context

1.1. Organizational Context

Rikolto is an international NGO with over 50 years of experience partnering with farmer organizations and food chain actors across Africa, Asia, Europe, and Latin America. Rikolto operates programmes in 18 countries worldwide through 5 regional offices.

Rikolto envisions a world with a sustainable income for farmers and nutritious, affordable food for everyone. We reach our goals by building bridges between smallholder farmer organizations, companies, authorities, and other actors across rural and urban areas. Together, we create innovative ways of accessing, distributing, and producing nutritious, quality food so no one is left behind.

Since 2017, Rikolto has engaged in the rice sector in nine countries: Vietnam, Indonesia, the Democratic Republic of Congo, Tanzania, Uganda, Benin, Burkina Faso, Mali, and Senegal. Rikolto has been supporting farmers to change their practices in line with low-carbon and sustainable rice production practices, including Alternate Wetting and Drying (AWD), following the Sustainable Rice Production (SRP) Standard, and promoting market linkages by connecting rice producers with market actors. In terms of the enabling environment, through collaboration with other stakeholders, Rikolto encourages public and private stakeholders to adopt policies, programmes, and initiatives that promote a more sustainable and inclusively governed rice sector.

1.2. The Sustainable Rice Platform (SRP) in Dong Thap

The Sustainable Rice Platform (SRP) Standard for Sustainable Rice Cultivation is the world's first voluntary sustainability standard for rice. Drawing on the experiences of other agri-food sustainability initiatives, the SRP Standard was developed over a two-year period with broad stakeholder participation. Farmers' livelihoods have become increasingly vulnerable due to market fluctuations and climate-related impacts such as floods and droughts. The SRP Standard provides a practical framework for improving the economic, environmental, and social sustainability of rice production. Its implementation can contribute to more efficient input use, reduced environmental impacts and production risks, and improved farm management, while remaining applicable to rice production systems in the Mekong Delta. Since 2018,

farmers in Dong Thap Province have been implementing and gaining experience with the SRP model supported by Rikolto. Recently, three cooperatives (Binh Thanh in 2024; Tan Binh and Thang Loi in 2025) successfully received SRP verification. Beyond its social and environmental benefits, SRP adoption and verification may generate economic benefits through changes in production costs, rice quality, market access, and potentially price premiums. However, the magnitude and distribution of these benefits across value-chain actors have not yet been systematically assessed. Rikolto therefore seeks to evaluate the actual economic performance of SRP adoption and verification across the rice value chain.

1.3. Landscape-Level Regenerative Agriculture around Tram Chim National Park

In parallel, Rikolto is partnering with Livelihoods Venture and the Livelihoods 3rd Carbon Fund (LCF3) to implement the project "Developing Sustainable Value Chains for Smallholder Farmers in Dong Thap from 2022-2035". The project aims to reduce GHG emissions while maintaining high production to ensure food security and contribute positively to economic growth and environmental sustainability. Sustainable Rice Platform (SRP) and Alternate Wetting and Drying (AWD) have been identified as the most promising practices for reducing GHG emissions, especially for irrigated rice.

At the landscape level, the project focuses on improving biodiversity and ecosystem connectivity in cooperatives surrounding Tram Chim National Park through the restoration of semi-natural habitats in paddy fields. Regenerative rice cultivation can generate positive biodiversity outcomes by creating feeding and nesting habitats for wildlife, including the Sarus crane. To support this vision, Rikolto is commissioning specialized scientific research to develop organic soil amendments, test regenerative farming models, and accurately model field-level emissions.

To support these initiatives, Rikolto seeks a qualified multidisciplinary consulting team, research institution, university, or consortium to implement an integrated assignment comprising four complementary components: (1) evaluation of the economic performance of SRP adoption and verification; (2) development and testing of advanced organic soil amendments from locally available agricultural by-products; (3) field testing of regenerative rice farming models; and (4) field-informed Tier 3 greenhouse gas emission modelling and assessment in Dong Thap Province.

2. Key Objectives

The consultant will be responsible for implementing an integrated assignment comprising four interrelated components:

Component 1: SRP Economic Performance Evaluation

The consultant will assess the economic performance associated with SRP adoption and verification across key actors in the rice value chain, while distinguishing, where feasible, between the effects of adopting SRP practices and the additional costs and benefits associated with SRP verification. The assessment will include:

- Assessing changes in farmer production costs, income, profitability, and market access associated with SRP adoption and verification.

- Assessing the economic implications for cooperatives and rice companies, including compliance and transaction costs, market access, and the existence and magnitude of any price premiums associated with SRP-verified rice.
- Assessing the costs and benefits of establishing, achieving, and maintaining SRP verification, including costs borne by farmers, cooperatives, companies, Rikolto, and other supporting actors.
- Calculating relevant economic indicators, where data permit, such as cost per farmer and hectare verified, incremental income or profit, benefit-cost ratio, and payback period.
- Assessing the financial sustainability and scalability of the SRP model, including the feasibility of maintaining verification with reduced external project support.
- Assessing relevant environmental and social outcomes associated with SRP implementation as complementary dimensions of the overall evaluation.

Component 2: Development of Advanced Organic Soil Amendments from Local Agricultural By-products

The consultant will be responsible for:

- Developing advanced organic soil amendments from locally available agricultural by-products.
- Evaluating nutrient retention capacity, microbial support functions, and soil improvement potential.
- Assessing production feasibility and applicability under rice cultivation conditions.
- Identifying the most promising formulation(s), based on predefined technical, environmental, practical, and economic criteria, the consultant shall recommend the most promising formulation(s) for subsequent field testing under Component 3. The final selection of formulation(s) shall be reviewed and formally approved by Rikolto prior to field trial establishment.

Component 3: Testing Regenerative Rice Farming Models

The consultant will be responsible for:

- Designing, establishing, and managing regenerative rice farming trials of selected regenerative rice farming models.
- Comparing the short-term agronomic, environmental, and economic performance of different treatments. Assessing changes in relevant soil quality, biodiversity, productivity, and farm management indicators during the study period. Establishing baseline data and monitoring protocols that can support longer-term assessment of regenerative agriculture outcomes beyond the consultancy period.

Component 4: Tier 3 Greenhouse Gas Emission Assessment in Rice Fields

The consultant will be responsible for:

- Developing an appropriate field monitoring and modelling framework for Tier 3 GHG assessment of selected rice production systems.
- Collecting field and environmental data required for GHG modelling.
- Applying Tier 3 methodologies to quantify emissions from rice cultivation systems.
- Assessing model performance, uncertainty, and the emission reduction potential of different rice production systems.

3. Scope of Work and Technical Specifications

The consultant, consulting team, research institution, or consortium will be responsible for delivering all consultancy outputs in close coordination with Rikolto's Rice team. This includes, but is not limited to, the following tasks:

Component 1: SRP Efficiency Performance Evaluation

The consultant will be responsible for evaluating the economic impacts of SRP adoption and verification across actors in the rice value chain:

- Reviewing project documents, SRP verification reports, and existing datasets.
- Developing evaluation frameworks and interview tools.
- Conducting stakeholder interviews with farmers, cooperatives, companies, auditors, consultants, Rikolto, and government agencies.
- Performing economic analyses.
- Producing draft and final reports, together with the cleaned dataset and analytical files.

Component 2: Development of Advanced Organic Soil Amendments from Local Agricultural By-products

The consultant will develop and test advanced organic soil amendments capable of retaining nutrients and supporting beneficial microbial systems in rice fields:

- Design, produce, and evaluate organic soil amendment formulations from locally available agricultural by-products, such as rice straw, rice husks, and water hyacinth.
- Conduct laboratory analyses.
- Assess nutrient retention and microbial characteristics.
- Evaluate applicability and production feasibility.
- Produce technical reports and recommendations.

Amendment treatments (AT):

- AT1: Cellulose-based organic soil amendment derived from rice straw and water hyacinth.
- AT2: Cellulose-based organic soil amendment supplemented with functional groups to enhance nutrient retention capacity.
- AT3: Biochar produced from rice husks and rice straw.
- AT4: Organic soil amendment blended with biochar.
- AT5: Organic soil amendment blended with biochar and indigenous microorganisms.

The experiment should include a minimum of five treatments (AT1–AT5). The consultant shall propose an appropriate experimental design, including controls, replication, analytical methods, and statistical analysis, to ensure scientific validity. The consultant may recommend adjustments to the proposed treatments during the inception phase where technically justified and agreed with Rikolto.

Based on predefined technical, environmental, practical, and economic criteria, the consultant shall recommend the most promising formulation(s) for subsequent field testing under Component 3.

Measurement parameters:

Indicator group	Indicators/Analytical parameters
Organic soil amendment characteristics	pH, moisture content, organic matter, cation exchange capacity (CEC), biodegradability
Biochar characteristics	pH, ash content, porosity/specific surface area (BET), stability
Nutrient retention capacity	Nutrient release kinetics (N, P, K) over time
Microbial properties	Ability to support microorganisms involved in organic matter decomposition, nitrogen fixation, and phosphate solubilization
Soil improvement capacity	Effects on soil pH, SOC, moisture, and porosity
Applicability	Mixing ratio, uniformity, production cost, practical applicability

Component 3: Testing Regenerative Farming Models in Rice Fields

The consultant will establish field experiments to compare the economic, technical, and environmental performance of regenerative farming systems:

- Establish and manage field experiments comparing conventional rice production, rice-fish systems, rice-duck systems, and regenerative models incorporating advanced organic soil amendments.
- Monitor agronomic, environmental, and economic indicators.
- Collect and analyze soil, water, biodiversity, and production data.
- Evaluate treatment performance.
- Produce technical reports and recommendations.

Field treatments (FT):

- FT1: Conventional rice farming (Control).
- FT2: Rice-fish farming model.
- FT3: Rice-duck farming model.
- FT4: Rice-fish model + application of organic soil amendment (selected from Component 2).
- FT5: Rice-duck model + application of organic soil amendment (selected from Component 2).

The experiment should include, at minimum, the proposed treatments FT1–FT5. During the inception phase, the consultant shall review the proposed treatment structure and may recommend additional or modified treatments where necessary to isolate the effects of specific regenerative practices or soil amendments. The final experimental design, including controls, plot size, replication, randomization, and statistical analysis, shall be agreed with Rikolto prior to field establishment.

Measurement parameters:

Indicator group	Indicators/Evaluation parameters
Agronomy & Yield	Plant height, tiller number, pest and disease incidence, biomass (once/month), yield components, actual rice yield
Inputs & Ecology	Quantity of fertilizers/pesticides used; density of weeds, pests, and natural enemies
Soil & Water Quality	Soil pH, SOC, moisture, soil nutrients; water pH and turbidity; aerobic microorganisms; fungal/bacterial ratio; cellulose-decomposing microorganisms; nitrogen-fixing microorganisms; phosphate-solubilizing microorganisms; antagonistic microorganisms (actinomycetes and fungal-suppressing microbial groups); soil respiration intensity (CO_2 emissions)
Emissions (Estimated)	Estimation of greenhouse gas emission reductions (Methane – CH_4)
Livestock (Fish/Ducks)	Survival rate, growth rate, harvested yield
Economics & Management	Investment cost, total revenue, net profit, farmer interviews regarding field logbooks

Component 4: Greenhouse Gas Emission Assessment in Rice Fields

The consultant will apply Tier 3 methodology for quantifying and assessing greenhouse gas (GHG) emissions in rice cultivation:

- Design field monitoring protocols to assess conventional rice farming, AWD rice farming, SRP-certified rice farming, and regenerative rice farming systems.
- Collect field management and environmental data.
- Conduct sampling and measurements.
- Apply DNDC, Landscape DNDC, or equivalent Tier 3 modelling approaches to estimate GHG emissions and emission reduction potential.
- Produce emission estimates and technical reports.

Assessment Systems (GHG):

- GHG1: Conventional rice farming system
- GHG2: AWD rice farming system
- GHG3: SRP rice farming system
- GHG4: Regenerative rice farming system

4. Main Activities and Schedule

Implementation Period: 12 months

The proposed schedule is indicative. Applicants are expected to review the sequencing and interdependencies among the four components and propose a technically feasible implementation roadmap. Particular attention should be given to the dependency between Component 2 and Component 3, as the selection of organic soil amendment formulation(s) for field testing should be informed by the initial results of Component 2. The proposed roadmap should also reflect local rice cropping calendars, field conditions, laboratory turnaround times, and the data requirements for GHG model calibration and validation.

Following selection, the consultant/team may be requested to refine the proposed methodology, sequencing, milestones, and implementation plan based on Rikolto's feedback and information available at the start of the assignment. Any significant changes to the agreed research design or implementation schedule shall be discussed and agreed with Rikolto before implementation.

Activity	**Month**											
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Component 1: SRP Economic Efficiency Evaluation												
Activity 1.1: Literature review, methodology development and inception report												
Activity 1.2: Develop survey tools and stakeholder mapping												
Activity 1.3: Interviews with farmers, cooperatives, companies, auditors, consultants, Rikolto, and government agencies												
Activity 1.4: Economic analysis and value chain assessment												
Activity 1.5: Economic assessment reporting												
Component 2: Development of Advanced Organic Soil Amendments												
Activity 2.1: Design formulations and experimental protocol												
Activity 2.2: Collection of agricultural by-products and amendment production												
Activity 2.3: Laboratory testing and characterization												
Activity 2.4: Nutrient retention and microbial assessments												
Activity 2.5: Technical evaluation and reporting												
Component 3: Testing Regenerative Farming Models in Rice Fields												
Activity 3.1: Experimental design and field establishment												
Activity 3.2: Crop monitoring and field data collection												
Activity 3.3: Soil, water and biodiversity monitoring												
Activity 3.4: Livestock monitoring (fish/duck treatments)												
Activity 3.5: Economic and environmental assessment												
Activity 3.6: Reporting and recommendations												

Component 4: Greenhouse Gas Emission Assessment in Rice Fields												
Activity 4.1: Develop a GHG monitoring protocol and modelling framework												
Activity 4.2: Collect field management and climate data												
Activity 4.3: Water level monitoring and biomass measurements												
Activity 4.4: Soil sampling and laboratory analysis												
Activity 4.5: GHG measurements and modelling (DNDC/Landscape DNDC)												
Activity 4.6: Emission assessment report												

5. Expected Deliverables

Deliverable 1 – SRP Economic Performance Evaluation

Draft and final evaluation report covering farmer, cooperative, company, and verification-level economic performance, together with cleaned datasets, survey/interview tools, and analytical files.

Deliverable 2 – Organic Soil Amendment Development Report

Documentation of formulations, laboratory methods and results, technical and economic assessment, and recommendation of formulation(s) for field testing.

Deliverable 3 – Regenerative Rice Field Trial Report

Documentation of experimental design, field implementation, agronomic, soil, water, biodiversity, livestock, environmental, and economic results, together with the complete field dataset.

Deliverable 4 – GHG Assessment and Modelling Package

GHG monitoring protocol, field measurement results, model description, calibration/validation results, uncertainty assessment, emission estimates, and all model input, parameter, calculation, and output files.

Deliverable 5 – Integrated Final Report and Recommendations

An integrated synthesis of findings from all four components, including practical recommendations for SRP scaling, regenerative rice development, GHG monitoring/MRV, and future research.

6. Data, Research Outputs and Intellectual Property

All primary data, cleaned datasets, research protocols, laboratory results, field monitoring records, analytical files, model input and output files, and reports generated specifically under this assignment shall be provided to Rikolto in editable formats. Rikolto shall have the right to use these outputs for project implementation, monitoring, reporting, learning, and non-commercial research and communication

purposes. Any pre-existing proprietary tools, models, software, or methodologies used by the consultant shall remain the property of their respective owners and shall be clearly identified in the technical proposal.

7. Consultant Requirements

The consultant, consulting team, research institution, or consortium should collectively possess the following qualifications and experience:

- At least five years of experience in agricultural research, environmental sciences, economic analysis, and value chain evaluations.
- Strong technical knowledge of the SRP Standard and the rice sector in the Mekong Delta.
- Demonstrated experience conducting cost-benefit analyses and value chain evaluations.
- Experience in rice cultivation research and agricultural field experiments.
- Expertise in developing advanced organic soil amendments from agricultural by-products, including biochar, cellulose-based amendments, and microbial formulations.
- Experience applying Tier 3 GHG quantification methodologies as recommended by the IPCC.
- Demonstrated experience applying DNDC, LandscapeDNDC, or equivalent Tier 3 GHG modelling approaches is required.
- Proven experience in stakeholder engagement across NGOs, government institutions, and the private sector.
- Strong analytical skills with a demonstrated track record of producing high-quality reports for international organizations.
- Practical experience working in or around Tram Chim National Park is an advantage.

8. How to apply

Interested consultants, research institutions, universities, or consortia are invited to submit the following documents:

Technical Proposal:

A proposal describing:

- Understanding of the assignment and proposed methodology for each component;
- Integrated research design, including sampling, analytical approaches and quality assurance;
- Approach to the key technical requirements under Components 1–4, including the selection of amendment formulation(s), field trial design, and GHG modelling;
- Key assumptions, data requirements, risks and mitigation measures; and
- Proposed deliverables.

Implementation Roadmap: A detailed 12-month work plan showing the sequencing, dependencies, and key milestones across all four components, taking into account the rice cropping calendar, laboratory work, field experiments, and GHG monitoring requirements.

Financial Proposal:

A detailed cost proposal covering the full assignment, including:

- Professional fees, with daily rates and estimated working days for each proposed expert;
- Field travel, accommodation and meals/per diem;
- Laboratory testing and analysis;
- Field sampling, measurements, experimental materials and inputs;
- Research assistants or other supporting personnel, where applicable;
- Other assignment-related or incidental costs; and applicable taxes/VAT.

Costs should be clearly broken down by component and, where relevant, by major activity. Applicants should distinguish between professional fees, research/field/laboratory costs, and other reimbursable costs, and state the total estimated cost.

Team CVs and Profile: CVs of the proposed lead consultant/team leader and key experts, indicating their roles and relevant experience. Consulting firms, research institutions, universities or consortia should also provide a brief institutional/company profile.

Submission deadline: **October 31, 2026**
Submission email: vietnam@rikolto.org

Only shortlisted consultants or consulting teams will be invited for an interview.