

Terms of Reference

Title	: Sustainable Aquaculture Training for Cooperative
Client	: Toan Thang cooperative, Phuoc Binh, Hoa De, Hoa Nho, Tai Thinh Phat, Tan Phat Loi and Phuong Dong Clam cooperative.
Country	: Vietnam
Project number	: 24ATVN-9764
Assignment number	:
Period	: February to November 2025
Cooperative advisor (CA)	: Nguyen Thi Thanh Trang

MACIB Project

Funded by the Dutch Government, this three-year project is a collaboration between the Agriterra, aquaculture and private sectors, local stakeholders, and shrimp and pangasius smallholder farmers in Tra Vinh, Soc Trang, Ca Mau, and Bac Lieu provinces. Part of the broader combi track sustainable aquaculture initiative, this project aligns with Vietnam's master plan for the Mekong Delta, focusing on sustainable agricultural value chains.

The MACIB project aims to transform aquaculture cooperatives into professional and robust entities capable of managing their business models effectively. This transformation is crucial for their role in the aquaculture supply chain. The project focuses on developing sound business models and solid cooperative organizations to ensure long-term success and viability. It also emphasizes enhancing services to member farmers, particularly in sustainable and environmentally friendly aquaculture production. Inclusivity is a key pillar, aiming to empower underrepresented groups, especially women and youth, by fostering their active participation and leadership. This is achieved through targeted training, leadership development initiatives, and cooperative policies promoting gender and youth inclusion. The overarching goal is to ensure these marginalized groups have a voice and a stake in the future of the aquaculture sector.

This project, throughout its implementation between 2024-2026, is envisioned to benefit 1,500 aquaculture smallholder farmers who are members of 07 aquaculture cooperatives (06 shrimp and 01 clam) at minimum in the Mekong Delta Region.

This follow-up assessment assignment for Agriterra which identified number of challenges and opportunities for technical supports to shrimp cooperatives in Tra Vinh, Soc Trang and Ca Mau provinces.

Introduction cooperative

Toan Thang Aquacultural Cooperative (TTC), located in Vinh Hiep commune, Vinh Chau township, Soc Trang province, Vietnam, started in 2016 with 24 members and has since grown to 72 members. Over the past eight years, TTC has achieved notable progress, including increased membership, a solid business foundation with robust supplier and buyer relationships, and clear goals for enhancing the shrimp value chain.

Established in 2020, **Phuoc Binh Cooperative** is a burgeoning community in Tra Vinh. Despite its recent inception, the cooperative has attracted 18 dedicated primary members. It places a significant emphasis on engaging young people in its activities, as evidenced by its inclusion of 1 youth member. Phuoc Binh Cooperative is poised to grow and make a notable impact in the region.

Hoa Nho Cooperative (Soc Trang Province) operates over 53 hectares with 25 members, primarily producing for high-value export markets. Since its inception in 2016, Hoa Nho Cooperative has grown to 25 primary members, managing 53 hectares of shrimp farming. The cooperative produces 3,012 MT of shrimp annually, much of which is exported to high-value markets, including the EU, USA, Japan, and South Korea.

Hoa De Cooperative (Soc Trang Province), with 53 members and 63 hectares of production land, combines raw shrimp production with value-added processing (dried shrimp, shrimp crackers). Despite its strengths in value-added production, Hoa De faces limitations in financial and operational efficiency.

Tai Thinh Phat Farm Cooperative: Located in Nam Can district, Ca Mau province, Tai Thinh Phat focuses on semi-intensive shrimp farming with organic-certified practices. Despite challenges in technology and engagement, its high ROI (119%) reflects strong efficiency. By adopting modern techniques and strengthening market linkages, the cooperative aims to boost productivity, financial stability, and sustainability in aquaculture.

Tan Phat Loi Cooperative: Based in Ngoc Hien district, Ca Mau, Tan Phat Loi Cooperative spans 540 hectares of mangrove shrimp farming. Despite challenges in technical capacity and processing, its strong community support and exceptional ROI (125%) position it for sustainable growth. By enhancing processing capabilities and adopting sustainable practices, Tan Phat Loi aims to expand market access and solidify its success.

Phuong Dong Cooperative: Established in 2008, Phuong Dong Cooperative operates on 183 hectares with 242 members, producing 2,500 tons of clams annually by 2023. Through stable farming practices and effective management, it has driven local employment and community development. With its strong production growth and sustainable approach, Phuong Dong exemplifies the potential of cooperative-driven aquaculture.

Background of the assignment

The Mekong Delta is home to a significant portion of Vietnam's shrimp farming industry, a sector vital to the livelihoods of local farmers and the national economy. However, cooperatives in this region face persistent challenges, including limited access to quality inputs, modern technology, financial services, and sustainable farming practices. Specific assessments of Phuoc Binh, Hoa De, Hoa Nho, Toan Thang, Tai Thinh Phat, Tan Phat Loi and Phuong Dong cooperatives revealed unique challenges that must be addressed to ensure their sustainable growth and long-term viability. Each cooperative faces different challenges and weaknesses that are addressed in the assessment of MACIB project.

- **Phuoc Binh Cooperative:** Phuoc Binh faces significant challenges in accessing financial resources and modernizing its infrastructure. The cooperative lacks sufficient financial backing

to support investments in technology and infrastructure improvements, particularly in implementing fully lined PE ponds, which are essential for higher yields and better control of shrimp farming conditions.

- **Hoa De Cooperative:** Hoa De faces limitations in financial and operational efficiency. The cooperative struggles with limited investment resources and has medium access to quality inputs, training, and technology. Improving its financial management and expanding its access to sustainable farming technologies are critical steps for increasing its competitiveness in both local and export markets
- **Hoa Nho Cooperative:** the cooperative's small membership base and limited financial resources constrain its growth potential. While Hoa Nho benefits from member solidarity and knowledge sharing, its operational efficiency and financial management need significant improvement. Additionally, the cooperative has limited youth and gender participation, which affects its inclusivity and long-term leadership development
- **Toan Thang Cooperative:** Toan Thang faces challenges in scaling its operations and enhancing its production efficiency. The cooperative struggles with limited financial resources and outdated farming practices in certain areas, particularly among members using partial PE pond liners or earthen ponds. These members experience lower yields and higher disease risks due to poor infrastructure and inadequate feed management. By adopting modern farming technologies and improving its governance and financial systems, Toan Thang can significantly enhance its competitiveness and profitability.
- **Tai Thinh Phat Cooperative** faces critical challenges, including inadequate production skills, low member engagement, and unstable market demand. Limited access to advanced training and resources further hinders productivity. Economic fluctuations and insufficient climate adaptation strategies amplify risks. Addressing these issues through targeted capacity building and risk management plans is essential for sustainable growth and resilience.
- **Tan Phat Loi Cooperative** encounters significant challenges, including limited processing capacity, insufficient technical skills, and vulnerability to climate change impacts. Market volatility and restricted access to advanced technologies further constrain growth. Overcoming these barriers through enhanced technical training, expanded processing infrastructure, and climate adaptation strategies is critical to ensuring long-term sustainability and competitiveness in high-value markets.
- **Phuong Dong Cooperative:** Phuong Dong faces challenges including unstable seed supply, environmental changes affecting clam survival, and market instability with prices dropping from VND 35,000/kg to VND 25,000/kg in 2024. Limited expansion opportunities and logistical inefficiencies in distribution further hinder growth. Addressing these issues is crucial to improving productivity, resilience, and market competitiveness.

Main objective

The primary objective of this ToR is to provide tailored technical support for Phuoc Binh, Hoa De, Hoa Nho, Toan Thang, Tai Thinh Phat, Tan Phat Loi and Phuong Dong Cooperatives. *The focus will be on:*

- Enhancing productivity and profitability through sustainable farming practices.
- Incorporating advanced technology and innovation to increase efficiency and environmental sustainability.
- Implementing recommendations from cooperative assessment results to address specific challenges for each cooperative.

Scope of Work

The technical support provider will deliver the following services, ensuring close alignment with the recommendations from the cooperative assessment results:

- 1. Develop the customized Training Modules:**
 - Developed tailored to each cooperative's specific needs and challenges, covering topics like water quality, feed management, and disease prevention.
- 2. Capacity Building in Sustainable Shrimp and Clam Production**
 - Training Programs: Deliver targeted training on water quality management, feed optimization, and disease prevention. The support will be designed to integrate climate-smart practices, such as renewable energy adoption and environmentally friendly infrastructure.
- 3. Technology Adoption and Innovation**
 - Modern Farming Systems: Introduce modern technologies such as PE pond liners, aeration systems, siphon system and IoT farm management tools (through partners like TEPBAC) to optimize shrimp production and reduce environmental impacts.
- 4. Promote learning and knowledge exchange:**
 - Through this assignment, MACIB will enhance 7 cooperatives through targeted training, peer learning, pilot projects, a digital platform for resources, and expert partnerships. These initiatives focus on adopting advanced, sustainable aquaculture practices.

Methodology

The support will be delivered through the following activities:

- 1. Initial Assessments:** A detailed review of the technical and financial needs of each cooperative based on previous assessments. These reviews will guide the design of customized interventions.
- 2. Workshops and Training:** Conduct on-site and virtual workshops on sustainable shrimp farming techniques, financial literacy, and governance. Special focus will be given to managing risk, improving water management, and meeting certification standards.
- 3. Field Visits and Advisory Services:** Field experts will conduct quarterly visits to monitor progress and provide real-time advisory services, ensuring the cooperatives are implementing best practices effectively.
- 4. Promote the peer learning and exchanges** amongst seven cooperatives to share success model, best practices and effective farming methods.

Deliverables

- **Customized Training Modules:** Tailored to each cooperative's specific needs and challenges, covering topics like water quality, feed management, and disease prevention.
- **Training provided to 04 cooperative and its key members:** Deliver targeted training on water quality management, feed optimization, and disease prevention. The support will be designed to integrate climate-smart practices, such as renewable energy adoption and environmentally friendly infrastructure.
- **New technologies and innovations to cooperatives are introduced** to cooperatives to optimize shrimp production and reduce environmental impacts.
- **A cross-cooperative learning and exchange mechanism is developed and operated by** cooperative with support from cooperative alliance and Agriterra

- **Technical Assessment Report:** A comprehensive report summarizing the cooperatives' progress towards sustainable shrimp production.

Timeline

The assignment spans **08 months (February 2024 - October 2025)**, with specific activities scheduled as follows:

Month 1-2: Initial Assessments and Development of Training Programs

- **Activities:**
 - Conduct in-depth assessments of each cooperative's current technical and financial capabilities.
 - Review previous cooperative assessment results to identify technical support needs for sustainable shrimp farming.
 - Design customized training programs focusing on water quality, feed management, disease prevention, and climate-smart practices.
- **Deliverables:** Assessment report for each cooperative; detailed training program plan.

Month 3-5: Conduct Training Workshops

- **Activities:**
 - Deliver targeted training workshops on sustainable shrimp farming techniques, including water quality management, feed optimization, and disease control.
 - Conduct on-site training at demonstration farms, showcasing modern farming systems, PE pond liners, and probiotics.

- **Deliverables:** Conduct 4 training sessions.

Month 6-7: Ongoing Technical Support through Field Visits and Advisory Services

- **Activities:**
 - Conduct quarterly field visits to monitor the cooperatives' progress in implementing sustainable practices.
 - Provide real-time advisory support, adjusting training content as needed based on cooperative feedback.
 - Assist cooperatives in troubleshooting challenges related to water management, feed practices, and disease prevention.
 - Promote the peer learning and exchanges amongst seven cooperatives to share success model, best practices and effective farming methods.
- **Deliverables:** Field visit reports documenting progress, challenges, and recommendations for improvement.

Month -8: Final Evaluation, Assessment, and Reporting

- **Activities:**
 - Conduct a comprehensive evaluation of each cooperative's progress toward sustainable shrimp production.
 - Gather feedback from cooperative members and stakeholders to assess training effectiveness and demonstration farm impact.
 - Compile a final technical assessment report, summarizing the assignment outcomes and recommendations for long-term sustainability.
- **Deliverables:** Final report detailing cooperative progress, sustainability metrics, and recommendations for continued improvement.

Required Expertise

The technical support provider must possess:

- Extensive experience in sustainable aquaculture and shrimp farming.
- Expertise in climate-smart practices and certification processes (e.g., ASC, organic).
- Familiarity with the Mekong Delta region and its aquaculture challenges.

Following the 4P approach, the technical support providers from private companies and partners will be requested and included in some activities or assignment if needed.

Monitoring and Evaluation

Progress will be monitored through:

- Monthly progress reports detailing training activities, cooperative feedback, and implementation challenges.
- Quarterly field visits to assess on-ground progress and refine the support strategy.

Application Process

1. **Submission of Application:** Interested aquaculture experts are required to submit their applications, including
 - A resume and cover letter
 - A proposal with specific timelines and activities align with the Agriterra's assignment. The proposal should demonstrate experience in sustainable aquaculture practices and technology adoption following different models of shrimp farming from low to high stocking density with suitable infrastructure of cooperatives. Detailed will be discussed during interview.
 - Daily consultancy rate and estimated total cost

Application should be submitted in English by email with the subject mentioning "name, aquaculture technical support consultancy" to vietnam@agriterra.org
The closing date for application: 17.00, February 15, 2025

2. **Interviews and Selection:** Shortlisted candidates will be contacted for interviews, where they will discuss their proposed approach, methodology, and relevant experience. The final selection will be made based on the candidate's alignment with the assignment goals and the MACIB project needs.

Budget

The budget will be developed in close coordination with Agriterra, the cooperatives and private sectors (if needed) through co-investment. Key budget items include:

- Training and Capacity Building: Costs for workshops, expert facilitation, and training materials.
- Digital learning and communication platform
- Monitoring and Evaluation: Travel expenses, field visits, and reporting costs.

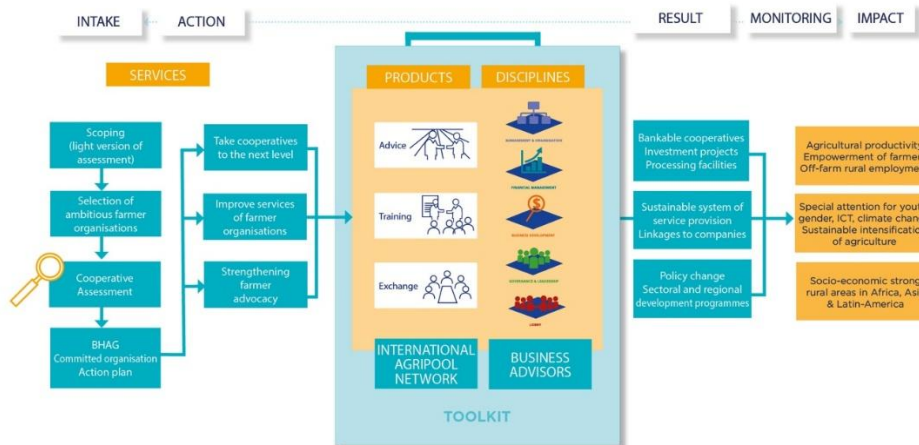
Assignment details

- Composition of the Agriterra assignment team:
 - Le Anh Tuan – Agriterra Senior Regional Cooperative Advisor Asia Region.

- Pham Nguyen Duy – CA
 - Tran Quang Dieu – CA
 - Pham Thanh Trang - CA
- Arrangements: Agriterra will arrange and cater for flight, hotel, transportation, programme for the Agriterra assignment team.

Agriterra, for cooperatives

HOW DOES AGRITERRA WORK



Agriterra provides high quality, and hands-on advice, training and exchange services, to cooperatives and farmer organisations with maximum impact for socio-economically strong and productive rural areas. In 2019, with 163 employees, Agriterra advises 291 cooperatives in 21 countries. With our programme we reach more than 850.000 farmers. Over the past few years, we have already mobilised more than 50 million euro made available through policy changes. More than 129 cooperatives are linked to banks with a mobilised loan for working capital and investments of more than 75 million euros, while 51 clients have a processing facility with increased production.

Through professionalising and strengthening cooperatives in Latin America, Africa and Asia, Agriterra contributes to positive economic development and better income distribution. Farmers organised in strong, competitive and trustworthy cooperatives are indispensable for a vibrant rural economy, fostering agricultural development and off-farm employment in rural areas.

Agriterra draws on a century of cooperative knowledge in the Netherlands disclosed via its extensive network in the Dutch agri-food sector. These experts and Agripool experts from farmers organisations all over the world, work together with business advisors from the Netherlands and national business advisors in the countries where Agriterra staff is based.