

# SAFE AGRICULTURE PROJECT

FROM YOUR FARM TO YOUR TABLE

Expansion plan linked to the agricultural asset platform supported by  
BOI Thailand and Arrow Syndicate Public Company Limited

13 enabling asset categories • THB 8,425,000 • 1,000 target  
households • 36 months

Prepared by the Community of Bio-Organic Fertilizer Plant Enterprise,  
Chaiyaphum

Mr. Suraput Muensrirach, President • July 2026

# Executive Summary

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The project integrates the Safe Agriculture Farm-as-a-Service model with a reported THB 8.425 million agricultural asset platform supported through cooperation involving BOI Thailand and Arrow Syndicate Public Company Limited. The platform will serve as a demonstration, training, seedling, soil-input, post-harvest, cold-chain and market-linkage base.

The scale-up targets 1,000 additional smallholder households with high-value crops, lower production costs, food preservation and packaging, no-burn residue management, PM2.5 risk reduction and a measurable pathway toward net-zero rural food-system operations. New investment will complement—not duplicate—the existing asset base.

## Core principles

- Verify ownership, value, condition, commissioning and eligibility before treating existing assets as counterpart contribution.
- Do not purchase duplicate assets; fill only validated gaps in quality assurance, processing, packaging, markets and data.
- Require a utilization plan, lifecycle maintenance reserve, responsible custodian and measurable results for every shared asset.
- Measure success through net income, cost reduction, adoption, sales, quality, residue diversion and verified emissions data.

# 1. Rationale and Project Model

Urban households, health-conscious families, restaurants, hotels and CSR programmes may rent or sponsor managed production plots while the enterprise provides cultivation, care, harvesting, traceability and cold-chain delivery.

| Service tier       | Target users                       | Main scope                                                                | Revenue model                                       |
|--------------------|------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------|
| Starter Plot       | Beginners / families               | One 8×20 m greenhouse, crop choice, traceability and weekly delivery      | Rental, membership and care services                |
| Family Plot        | Families / CSR                     | Two or more greenhouses with managed production and scheduled delivery    | Annual package and logistics                        |
| Premium / Organic+ | Restaurants, hotels, health market | Ten or more greenhouses plus outdoor high-value crops and production data | Production contracts, full service and market sales |

## Business model validation

Pricing and unit economics must be validated per crop and production cycle, including seeds, fertilizer, labour, losses, packaging and cold-chain costs.

## 2. Linkage to the BOI-Supported Platform

The existing assets form a shared operating base across the value chain—from seedlings and protected cultivation to organic-resource management, water, washing, cooling, delivery and market communication.

| Existing THB 8.425m base                            | Validated gaps for the scale-up                          | Expected result                                               |
|-----------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|
| Demonstration, training and shared services         | Food-safety systems, testing, processing and packaging   | Safe products, longer shelf life and access to modern markets |
| Seedlings, organic inputs and protected cultivation | 1,000-household network, crop plans and buyer agreements | Consistent supply, lower cost and higher income               |
| Washing, storage, delivery and media                | Traceability, CRM, SOP, QC and buyer dashboard           | Transparent lots, reliable orders and reporting               |

### Asset-governance requirements

- Verify ownership, value, condition, commissioning and eligibility before treating existing assets as counterpart contribution.
- Do not purchase duplicate assets; fill only validated gaps in quality assurance, processing, packaging, markets and data.
- Require a utilization plan, lifecycle maintenance reserve, responsible custodian and measurable results for every shared asset.

### 3. Mapping of the 13 Enabling Assets

| No. | Asset / infrastructure                 | THB m  | Scale-up role                                 | Use indicator                 |
|-----|----------------------------------------|--------|-----------------------------------------------|-------------------------------|
| 1   | 23 production greenhouses              | 4.600  | High-value crop demonstrations and production | Households adopting practices |
| 2   | 2 seedling nurseries                   | 0.200  | Standard seedlings and network service        | Survival rate / delivery      |
| 3   | 2 seedling-equipment sets              | 0.200  | Consistent seedling capacity                  | Units and on-time supply      |
| 4   | 1 earthworm greenhouse                 | 0.100  | Organic fertilizer and waste reduction        | Output and diverted material  |
| 5   | Compost bins and F1 earthworms         | 0.165  | Circular organic-resource system              | Production cycles and quality |
| 6   | Soil-mixing / compost storage building | 0.100  | Feedstock and batch control                   | Lab tests / batch records     |
| 7   | Parabolic solar dryer                  | 0.100  | Preservation trials and loss reduction        | Dry product / loss rate       |
| 8   | Solar-dryer control equipment          | 0.250  | Temperature and airflow control               | Moisture, quality, energy     |
| 9   | Soil mixer and pulverizer              | 0.250  | Uniform growing media                         | Cost per tonne / capacity     |
| 10  | Groundwater, tank and solar system     | 0.125  | Efficient and resilient water service         | Water/kg and energy           |
| 11  | Refrigerated four-wheel vehicle        | 1.200  | Aggregation and fresh delivery                | Trips, loss and temperature   |
| 12  | Recirculating vegetable washer         | 0.116  | Hygiene and lower water use                   | Water/kg and hygiene tests    |
| 13  | Camera and communications set          | 1.019* | Traceability, learning and markets            | Traceable lots / content      |

\*Item 13 is the residual needed to reconcile the applicant-supplied total of THB 8.425 million; confirm it against the signed asset register and handover documents.

## 4. Five Scale-up Components

| Component                                              | THB m | Main activities                                                                                                             |
|--------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------|
| 1. Inclusive organization and capacity                 | 8.0   | Register 1,000 households; strengthen about 20 clusters; farmer field schools; women and youth leadership; grievance system |
| 2. High-value crops, soil and climate-smart production | 15.0  | Soil tests, nutrient plans, demonstrations, organic-input QC, shared services and climate advisory                          |
| 3. Water efficiency and resilient infrastructure       | 10.0  | Water assessment, efficient irrigation, rain capture, user rules and maintenance funds                                      |
| 4. Preservation, packaging, markets and enterprise     | 18.0  | Feasibility first; modular processing; GMP/HACCP controls; traceability; buyer agreements and cold chain                    |
| 5. Net zero, PM2.5, management and learning            | 9.0   | GHG baseline, no-burn plans, resource efficiency, audit, evaluation and 2035 transition plan                                |

The five components use the existing asset base as a demonstration and service hub while extending production, market and learning services to participating clusters.

## 5. Results and Indicators

| Indicator                                | Baseline        | End target                            | Verification                     |
|------------------------------------------|-----------------|---------------------------------------|----------------------------------|
| Unique participating households          | To establish    | 1,000                                 | Registry and spot checks         |
| Average net agricultural income          | Baseline survey | ≥30% real increase                    | Panel farm accounts              |
| Selected external soil-input expenditure | Baseline survey | ≥20% average reduction among adopters | Cost and yield records           |
| Adopt ≥2 promoted practices              | 0               | ≥800 households                       | Field verification               |
| Access supported market channels         | 0               | ≥600 households                       | Sales / buyer records            |
| High-value crop protocols                | 0               | ≥700 households                       | Production and QC                |
| Residues diverted from open burning      | To establish    | ≥70% of project-linked residues       | Cluster records / spot checks    |
| Women / youth participants               | To establish    | ≥50% / ≥30%                           | Disaggregated records            |
| Functional clusters                      | 0               | ≥20                                   | Governance and financial records |

Targets are provisional and must be finalized after the baseline, with clear definitions, price deflators, sampling and data-protection rules.

## 6. 36-Month Work Plan and Governance

| Period      | Priority milestones                                                                                                                         |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Months 1–6  | Alignment and due diligence; baseline; market, water and safeguards studies; targeting; detailed design and procurement plan                |
| Months 7–12 | Clusters, field schools, soil testing, demonstrations, water/market pilots, grievance and data systems                                      |
| Year 2      | Scale crop clusters, organic inputs and water services; commission modular preservation only after feasibility; first commercial agreements |
| Year 3      | Optimize facility and markets; verify residue and GHG results; strengthen enterprises; endline and 2035 net-zero transition plan            |

| Body                     | Core accountability                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------|
| Steering Committee       | Strategy, annual plans, risk oversight and representation of government, producers, women and youth |
| Project Management Unit  | Delivery, contracts, procurement, finance, safeguards, M&E; and reporting                           |
| Technical Advisory Group | Soil, water, climate, food safety, business and evidence                                            |
| Cluster Committees       | Local scheduling, shared assets, service fees and grievance referral                                |
| Independent assurance    | Audit, asset/procurement review and evaluation                                                      |

## 7. Budget and Financing Framework

The THB 60 million expansion envelope is additional to the existing THB 8.425 million asset base and is not an approved commitment.

| Component                                | THB m | Share  |
|------------------------------------------|-------|--------|
| Organization and capacity                | 8.0   | 13.3%  |
| High-value crops, soil and climate       | 15.0  | 25.0%  |
| Water and resilient infrastructure       | 10.0  | 16.7%  |
| Preservation, packaging and markets      | 18.0  | 30.0%  |
| Net zero, PM2.5, management and learning | 9.0   | 15.0%  |
| TOTAL                                    | 60.0  | 100.0% |

| Indicative source           | THB m | Status                              |
|-----------------------------|-------|-------------------------------------|
| IFAD / development partners | 48.0  | Unconfirmed; consultation requested |
| Thai public partners        | 6.0   | Proposed                            |
| Applicant and communities   | 3.0   | Proposed cash / verified in-kind    |
| Private / market partners   | 3.0   | Proposed                            |
| TOTAL                       | 60.0  | Planning envelope only              |

## 8. Risks, Due Diligence and Next Steps

| Risk                                    | Rating      | Mitigation                                                                                 |
|-----------------------------------------|-------------|--------------------------------------------------------------------------------------------|
| Financing route / applicant eligibility | High        | Early IFAD and government consultation; qualified consortium or implementation alternative |
| Weak demand / price volatility          | High        | Buyer validation, diversified channels and staged investment                               |
| Governance / conflicts                  | High        | Disclosure, competitive procurement, audit and grievance mechanism                         |
| Climate / water shock                   | High        | Water budget, permits, diversification and contingency plans                               |
| Food safety failure                     | Medium-High | SOPs, laboratory tests, GMP/HACCP, traceability and recall plan                            |
| Underused equipment                     | Medium-High | Booking data, service fees, maintenance reserve and repurposing rules                      |

- Within 30 days: compile registration, governance, accounts, land documents and a verified register for all 13 assets; request technical consultations with relevant Thai authorities and IFAD.
- Within 60–180 days: complete the household baseline, market and factory feasibility, soil/water/climate and environmental-social assessments, detailed costing, procurement and M&E; plans.
- This applicant-prepared concept is for preliminary dialogue only. It is not an IFAD-approved project or financing commitment, and it does not imply BOI or Arrow endorsement of the full scale-up.

Applicant: Community of Bio-Organic Fertilizer Plant Enterprise, Chaiphaphum • 249 Moo 3, Chaothong, Phakdi Chumphon, Chaiphaphum 36260, Thailand • Mr. Suraput Muensrirach, President • suraput.m@gmail.com • +66 95 578 9191

## 9. Enterprise Profile and Evidence from the Website

The enterprise is based in Ban Chaothong, Phakdi Chumphon District, Chaiphaphum. It brings farmers together to produce quality organic fertilizer and microorganisms, restore soils and water, reduce chemical dependence, develop high-value crops and connect products to new markets through knowledge, technology and partnerships.



| Item                   | Detail                  |
|------------------------|-------------------------|
| Registration           | 4-36-14-02/1-0045       |
| Current operating area | 1.2 rai, Ban Chaothong  |
| Standards direction    | GAP • GMP               |
| President              | Mr. Suraput Muensrirach |

### Mission linkage

- Develop organic production inputs and microorganisms
- Build safe production plots, greenhouses and water systems
- Add value through kale products, beverages and processing
- Transfer knowledge through training, demonstrations and agricultural technology
- Strengthen community income, reduce waste and progress toward net zero

## 10. Products, Markets and Scale-up Presented on the Website

[illegible]

Source: the enterprise public website, reviewed 21 July 2026.  
<https://chaiyaphum-organic-enterprise.pattanachaiyaphum888.chatgpt.site/>

# Annex: Applicant-Supplied Asset Summary

**โครงการความร่วมมือส่งเสริมการเกษตรและเศรษฐกิจชุมชน**  
ภายใต้การสนับสนุนของ BOI Thailand และ บมจ.แอโรว ซินดิเคต

**THAILAND BOARD OF INVESTMENT** | **ARROW SYNDICATE**

วิสาหกิจชุมชนผู้ผลิตปุ๋ยอินทรีย์ชีวภาพ

## แผนความร่วมมือกับวิสาหกิจชุมชน

### สนับสนุนด้านการเกษตร

วิสาหกิจชุมชนผู้ผลิตปุ๋ยอินทรีย์ชีวภาพ จ.ชัยภูมิ

รวม 13 รายการ \$ มูลค่ารวมทั้งสิ้น **8,425,000** บาท

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1 โรงเรือนเพาะปลูก พร้อมโต๊ะปลูก</b><br/>ปรับชั้น-ลงได้<br/>ขนาด 8x20 เมตร</p> <ul style="list-style-type: none"> <li>✓ ควบคุมอุณหภูมิ</li> <li>✓ ปลูกผักได้ตลอดปี</li> <li>✓ เพิ่มผลผลิต</li> </ul> <p style="text-align: right;"><b>23 โรง 4,600,000 บาท</b></p>                                                                                                                                                                                                                                                                           | <p><b>2 โรงเพาะชำต้นกล้า (ต้นอ่อน)</b><br/>ขนาด 8x20 เมตร</p> <ul style="list-style-type: none"> <li>✓ กรองแสงระบายอากาศและน้ำดี</li> <li>✓ เพาะต้นกล้าได้ตลอดปี</li> </ul> <p style="text-align: right;"><b>2 โรง 200,000 บาท</b></p>                              | <p><b>3 อุปกรณ์เพาะชำต้นกล้า</b></p> <ul style="list-style-type: none"> <li>• ถาด 200 หลุม, พ็อกเก็ต</li> <li>• เมสิดพันธุ์, ต้นกล้า</li> <li>• เสาวรส, เมอร์รี่ ฯลฯ</li> </ul> <p style="text-align: right;"><b>2 ชุด 200,000 บาท</b></p>                        |
| <p><b>4 โรงเรือนเลี้ยงไส้เดือน</b><br/>ขนาด 8x20 เมตร</p> <ul style="list-style-type: none"> <li>✓ ผลิตมูลไส้เดือน</li> <li>✓ ปรับปรุงดิน</li> <li>✓ ลดต้นทุน</li> <li>✓ ลดขยะอินทรีย์</li> </ul> <p style="text-align: right;"><b>1 โรง 100,000 บาท</b></p>                                                                                                                                                                                                                                                                                       | <p><b>5 ถาดคอมโพสเลี้ยงไส้เดือน</b><br/>พร้อมพันธุ์ไส้เดือน F1</p> <ul style="list-style-type: none"> <li>✓ ทำจัดขยะ</li> <li>✓ ได้ปุ๋ยมูลไส้เดือน</li> <li>✓ ประหยัดพื้นที่</li> </ul> <p style="text-align: right;"><b>1 ชุด 165,000 บาท</b></p>                  | <p><b>6 โรงหมักดินและเก็บปุ๋ยหมัก</b><br/>ขนาด 8x20 เมตร</p> <ul style="list-style-type: none"> <li>✓ ควบคุมสภาพแวดล้อม</li> <li>✓ ย่อยสลายสารพิษ</li> <li>✓ กลิ่นน้อย</li> <li>✓ ลดแมลงวัน</li> </ul> <p style="text-align: right;"><b>1 โรง 100,000 บาท</b></p> |
| <p><b>7 พาราโบลาโดม (โดมอบแห้ง)</b><br/>ขนาด 6x8 ยาว 20 เมตร</p> <ul style="list-style-type: none"> <li>✦ แห้งเร็ว</li> <li>✦ สะอาด ปลอดภัย</li> <li>✦ ประหยัดพลังงาน</li> <li>✦ เพิ่มมูลค่าผลผลิต</li> </ul> <p style="text-align: right;"><b>1 โรง 100,000 บาท</b></p>                                                                                                                                                                                                                                                                           | <p><b>8 อุปกรณ์ส่วนควบ พาราโบลาโดม</b></p> <ul style="list-style-type: none"> <li>✦ ตะแกรงสแตนเลส</li> <li>✦ พัดลม DC 12V</li> <li>✦ ชุดโซลาร์เซลล์</li> <li>✦ ระบบดูดอากาศ</li> </ul> <p style="text-align: right;"><b>1 ชุด 250,000 บาท</b></p>                   | <p><b>9 เครื่องผสมและตีปั่นดินให้ร่วนซุย</b></p> <ul style="list-style-type: none"> <li>✦ ดินร่วนซุย</li> <li>✦ ส่วนผสมเข้ากันดี</li> <li>✦ ระบบน้ำและอากาศดี</li> <li>✦ ลดการใช้แรงงาน</li> </ul> <p style="text-align: right;"><b>1 ชุด 250,000 บาท</b></p>     |
| <p><b>10 น้ำบาดาล และระบบถังเก็บน้ำ</b><br/>รดต้นเร่งต้นสูง โซลาร์เซลล์</p> <ul style="list-style-type: none"> <li>✦ ประหยัดค่าไฟ</li> <li>✦ มีน้ำใช้ตลอดปี</li> <li>✦ ระบบอัตโนมัติ</li> <li>✦ เพิ่มผลผลิต</li> </ul> <p style="text-align: right;"><b>1 ชุด 125,000 บาท</b></p>                                                                                                                                                                                                                                                                  | <p><b>11 รถ 4 ล้อ ลำเลียงผักแบบห้องเย็น</b><br/>รถขนส่งผลผลิตทางการเกษตร</p> <ul style="list-style-type: none"> <li>✓ รักษาความสดใหม่</li> <li>✓ แล่อการเสียหาย</li> <li>✓ คงคุณค่าโภชนาการ</li> </ul> <p style="text-align: right;"><b>1 คัน 1,200,000 บาท</b></p> | <p><b>12 ระบบชักล้างผักแบบน้ำหมุนเวียน</b><br/>เติมออกซิเจนไม่มัต</p> <ul style="list-style-type: none"> <li>✦ ล้างสะอาด</li> <li>✦ ขจัดเชื้อโรค</li> <li>✦ ประหยัดแรงและเวลา</li> </ul> <p style="text-align: right;"><b>2 ชุด 115,600 บาท</b></p>               |
| <p><b>13 ชุดและอุปกรณ์กล้อง</b></p> <ul style="list-style-type: none"> <li>✓ บันทึกและถ่ายทอดกิจกรรม</li> <li>✓ สื่อสารและประชาสัมพันธ์</li> <li>✓ สร้างความน่าเชื่อถือ</li> <li>✓ เก็บข้อมูลและวิเคราะห์</li> <li>✓ ยกระดับมาตรฐานสินค้าเกษตร</li> </ul> <p style="text-align: right;"><b>ประกอบด้วย</b></p> <ul style="list-style-type: none"> <li>✓ กล้อง Sonya7R IV</li> <li>✓ เลนส์ Sony FE 24-70mm F2.8 GM II</li> <li>✓ เลนส์ Sony FE 70-200mm F2.8 GM OSS II</li> <li>✓ ไม้ค้ำ Sony ECM-B1M</li> <li>✓ ขาตั้ง Fotopro X-Go Plus</li> </ul> |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                   |

**ประโยชน์โดยรวม**

- ✦ เพิ่มผลผลิตและคุณภาพพืช
- ✦ ลดต้นทุน เพิ่มรายได้
- ✦ ใช้ทรัพยากรอย่างคุ้มค่า
- ✦ เป็นมิตรต่อสิ่งแวดล้อม
- ✦ ยกระดับมาตรฐานสินค้าเกษตร

**รวม 13 รายการ**  
**มูลค่ารวมทั้งสิ้น**  
**8,425,000**  
บาท

249 หมู่ 3 ตำบลเจาทอง อำเภอภักดีชุมพล จังหวัดชัยภูมิ 36260

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