

**Annex III – Term of Reference BL-G1011  
DRAFT**

<b>1. Name of the consultancy: Value chain expert &amp; Project Coordinator</b>
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**Type: Individual Consultant or Consulting firm.**

*Note: Previous the implementation stage, an assessment will be conducted to determine whether an individual consultant is required or whether project coordination should be integrated into a consulting firm responsible for the overall value chain component. This decision will depend on the market research carried out on potential service providers for all procurement processes included in this document.*

**Background (TO BE COMPLETED)**

**Scope of Work**

The individual will be responsible for the overall coordination and day-to-day management of the *Market Integration of Potential Deforestation-Free Value Chains in the Sustainable and Inclusive Belize Project* (BL-G1011). This assignment aims to ensure effective implementation, timely delivery of results, and coherent coordination among project partners, consultants, stakeholders, and governance bodies.

The individual will work closely with and support the Project Manager of the BL-L1041 Sustainable and Inclusive Project, to which BL-G1011 contributes. Through this close collaboration, the consultant will help ensure strategic alignment, operational coherence, and achievement of shared objectives across both projects.

Specifically, the individual will:

- Coordinate the overall implementation of BL-G1011 activities in accordance with approved work plans, budgets, and timelines.
- Support and work in close coordination with the Project Manager of BL-L1041 to ensure that BL-G1011 activities effectively contribute to the objectives and results of the broader BL-L1041 Sustainable and Inclusive Project.
- Ensure effective coordination among project partners, consultants, service providers, and stakeholders.
- Monitor progress against project results, outputs, and indicators, and propose corrective actions in coordination with the Project Manager.
- Facilitate communication and information flow among technical teams, local governance units, beneficiaries, and the BL-L1041 project management structure.
- Support the integration of sustainability, inclusion, and deforestation-free principles across project components (BL-G1011).
- Coordinate the preparation of periodic progress reports, work plans, and implementation updates, ensuring consistency with BL-L1041 reporting requirements.
- Organize and support project meetings, technical workshops, and coordination platforms, including joint activities with BL-L1041.
- Ensure proper documentation, record keeping, and knowledge management for project activities.
- Support compliance with donor requirements, including reporting, visibility, fiduciary, and accountability standards.

**Timeline:**

The contract is expected to be completed within thirty (30) months from contract signature.

**Consultant education and experience:**

- **Education:** Master's degree (or equivalent advanced degree) in project management, value chain, economics, rural development, public administration, agroforestry and environmental management or other fields relevant to the responsibilities of the role.
- **Experience:** At least 10 years of professional experience in coordinating development projects or having implemented projects in at least 3 countries, specifically in the agriculture sector and working with agricultural value chains. Proven experience supporting or working alongside Project Managers in complex, multi-component projects. Demonstrated experience managing multi-stakeholder, value chains initiatives. Familiarity with donor-funded project management procedures, reporting requirements, and results-based management frameworks. Strong organizational, communication, and reporting skills.
- **Languages:** Proficiency in English.

<b>2. Analyze Cocoa and Other Agroforestry-Based Crop Value Chains and Assess International Market Opportunities</b>
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**Type: Consulting firm**

*Note: Previous the implementation stage, an assessment will be conducted to determine whether any of the consulting firm processes identified for this PSG should be consolidated into one consulting firm contract responsible for the overall value chain component. This decision will depend on the market research carried out on potential service providers for all procurement processes included in this document.*

**Background (TO BE COMPLETED)**

**Overall Objective:** To support the integration of cocoa and other agroforestry-based crops from Belize into international value chains by analyzing value chain performance and assessing international market opportunities.

**Specific Objectives:**

- Analyze structure, performance, and sustainability of cocoa and other agroforestry-based crop value chains.
- Assess opportunities and requirements in selected international markets.
- Conduct a targeted assessment of European market requirements.

**Scope of Services**

- Map and analyze cocoa and other agroforestry-based crop value chains, including production, processing, aggregation, export, and institutional arrangements.
- Assess economic, environmental, and social sustainability dimensions.
- Analyze global market trends, buyer requirements, and niche specialty opportunities.
- Conduct a targeted review of European regulatory, voluntary, and buyer-driven deforestation-free obligations.

**Key Activities**

1. Inception and desk review – methodology, work plan, crop selection, market focus.

2. Value chain analysis – mapping actors, governance, product flows, bottlenecks, and sustainability practices.
3. International market assessment – global market trends, positioning, and European deforestation-free requirements.
4. Validation and reporting – present findings, incorporate feedback, finalize reports.

### Expected Outcomes

- Comprehensive understanding of value chain performance and sustainability.
- Identified market opportunities and requirements for cocoa and other agroforestry-based crops.

### Deliverables

1. Inception Report
2. Value Chain and International Market Linkages Report
3. Targeted European Market and Regulatory Assessment
4. Final Consolidated Report – Including the Action Plan to integrate Belizean agroforestry crops into international markets.

### Project Schedule

Milestone	Deliverable	Timeline
Contract Signing	–	Week 0
Inception Phase	Inception Report	Weeks 2–3
Value Chain Analysis	Value Chain & Market Report	Weeks 6–8
Targeted EU Assessment	EU Market Assessment	Weeks 10–12
Validation & Finalization	Final Consolidated Report	Weeks 18–20

### Requirements for the Consulting Firm and Key Personnel

The consulting firm must demonstrate the following minimum qualifications and experience:

#### Technical Experience:

- At least 5 years of proven experience in agricultural value chain analysis, preferably in cacao and/or agroforestry-based crops.
- Demonstrated experience (at least 2 studies) conducting: (i) value chain and supply chain studies (production, processing, aggregation, export, governance); and (ii) Market intelligence and competitiveness assessments for agricultural or natural-resource-based value chains/sectors.
- Experience working with international buyers, specialty markets, and niche value chains (e.g., fine-flavor cacao, premium agroforestry products).
- Experience conducting assessments of international market requirements, including regulatory, voluntary, and private-sector standards.

**Regional and Contextual Experience.** Experience working in Latin America and the Caribbean (LAC) is required; experience in Belize or the Caribbean is an asset.

#### Organizational Capacity:

- Ability to mobilize a multidisciplinary team with the technical skills required for this assignment.
- Ability to conduct fieldwork, stakeholder consultations, and data collection in rural and agricultural communities.

### **Requirements for Key Personnel**

The firm should propose a team with the following required positions and qualifications. One expert may cover multiple roles where appropriate, but all competencies must be fully addressed.

#### **Team Leader / Senior Value Chain Specialist (Key Expert 1):**

Lead the analysis, ensure methodological rigor, oversee deliverables, coordinate stakeholder engagement, and manage timelines and quality assurance

#### **Qualifications:**

- Advanced degree in Agricultural Economics, Agribusiness, Rural Development, Economics, or related field.
- Minimum 8 years of demonstrated experience leading value chain analyses in agriculture or agroforestry sectors.
- Proven experience conducting value chain mapping, competitiveness assessments, and stakeholder consultations.
- Experience in at least two comparable assignments in cacao or agroforestry crops is strongly preferred.
- Experience in the Caribbean or similar smallholder contexts is an asset.

#### **Market and Trade Specialist (Key Expert 2)**

Conduct international market opportunity analysis, assess buyer requirements, analyze global and EU-specific demand trends, and identify market entry strategies

#### **Qualifications:**

- Degree in **Business, Economics, Trade, Agribusiness, or Marketing**.
- **At least 3 years** of experience conducting international market assessments, market intelligence, and buyer requirement analyses.
- Demonstrated knowledge (at least 1 study developed) of: (i) Specialty and niche markets for cacao and agroforestry-based products; and (ii) International trade dynamics, buyer preferences, quality standards, and certification schemes.
- At least 3 studies or year of experience with EU, North American, or Asian markets; specific experience: at least 2 studies with EU market.

#### **Agricultural Economist / Agroforestry Production Specialist (Key Expert 3)**

Assess production structures, economic performance, cost-benefit dynamics, environmental practices, and producer-level constraints.

Experience assessing environmental risks and mitigation strategies for agricultural supply chains. Analyze environmental and social sustainability practices; review EU deforestation-free obligations and market standards; provide recommendations for compliance.

#### **Qualifications:**

- Degree in **Agriculture, Agronomy, Agroforestry, Agricultural Economics** or related field.
- **5 years** of experience analyzing production systems, productivity, and cost structures in smallholder contexts.

- Familiarity with cacao agroforestry systems and climate-resilient production practices.

### **Research Analyst / Data Specialist (Non-Key Expert, Optional)**

#### **Qualifications:**

- Degree in **Statistics, Economics, Data Science, or related field.**
- Experience in data collection, field survey design, and quantitative/qualitative analysis.

#### **Responsibilities:**

- Support data collection, interviews, field mapping, and report preparation.

## **3. Strengthen traceability and sustainability systems in the cacao value chain**

### **Type: Consulting firm**

#### **Background (TO BE COMPLETED)**

Context note (for ToR): EUDR compliance relies on robust supply-chain information, including geolocation of production plots, traceability, risk assessment/mitigation, and the ability to generate evidence that supports due diligence statements via the EU's information system.

**Overall Objective:** To strengthen the traceability and sustainability system of Belizean cacao by improving data management, farmer registration, and geolocation capabilities to support certification and EUDR compliance.

#### **Specific Objectives**

- Assess current traceability and sustainability systems and data management processes existing in Belize.
- Improve data systems to enable farmer geolocation, registry, and monitoring.
- Ensure that traceability systems support EUDR and certification-related data collection and reporting.
- Provide recommendations and guidance for system sustainability and future scaling.

#### **Scope of Services**

The consulting firm will provide technical, analytical, and operational support to strengthen Belizean initiatives on cacao traceability and sustainability systems, including:

- Review of existing data systems, farmer registries, and traceability tools.
- Assessment of gaps, weaknesses, and opportunities in current data collection and reporting processes.
- Design or upgrade of data management systems to capture farmer geolocation, production, and certification information.
- Support integration of traceability systems with EUDR requirements and relevant certification standards.
- Develop operational guidance, protocols, and training materials for stakeholders to ensure correct and consistent system use.

#### **Key Activities**

1. Inception and Desk Review.
  - Review existing traceability systems, policies, and technical documents.

- Prepare an inception report with methodology, work plan, and stakeholder engagement approach.
- 2. System Assessment. Requirements gathering.
  - Evaluate current data systems, farmer registry processes, and geolocation capabilities.
  - Identify gaps, strengths, and opportunities for strengthening traceability.
- 3. System Development/Strengthening.
  - Technical and functional design. Based on the gathered requirements and the selected development model, the firm shall carry out the functional and technical design of the system (upgrades or new), taking into account all types of users, data sources, and other considerations related to development.
  - Design or upgrade of data management systems. According to the approved design, the firm shall design, develop, and implement the digital solution, considering its necessary integrations with existing systems within MAFSE or farmers organizations infrastructure. Design or improve data management tools to capture geolocation, production, and certification data. Ensure system functionality aligns with EUDR and certification requirements.
- 4. Testing and Implementation.
  - The firm shall conduct quality testing on all digital solutions of the consultancy to ensure their functionality and make necessary adjustments. The development must undergo a web scan for vulnerability detection before its implementation in the production environment. Likewise, the firm shall implement the platform in the production environment.
- 5. Knowledge transfer, Guidelines and Training.
  - The firm must carry out the documentation and knowledge transfer to MAFSE or farmers organizations' personnel to ensure its sustainability, taking into account both technical transfer and the training of innovation liaisons.
  - Develop operational protocols and user guides.
  - Conduct a training session/workshop for key stakeholders (farmers, cooperatives, technical staff) on system use, monitoring, and reporting.
  - Additionally, the firm must produce audiovisual material such as tutorial videos for user training on how to use the tool.
- 6. Support.
  - The firm will perform support and maintenance activities for the platform, overseeing the updating of components, and the correction of errors and vulnerabilities. A pool of 100 working hours will be available, which could be used for the development of new functionalities or maintenance
- 7. Validation and Finalization.
  - Present system updates, guidelines, and training results to stakeholders for feedback.
  - Finalize all reports, documentation, and recommendations for sustainability and scaling.

## **Expected Outcomes**

- Strengthened traceability and sustainability system supporting farmer registration and geolocation.
- Enhanced capacity to collect, manage, and report data in line with EUDR and certification requirements.
- Practical guidance for long-term system sustainability and scalability.

### Deliverables

<b>Deliverable</b>	<b>Description</b>	<b>Timeline in indicative</b>
Inception Report	Work plan, methodology, and stakeholder engagement approach	2 weeks after contract signing
Technical and functional design of the platform	Based on the gathered requirements and the selected development model, the firm shall carry out the functional and technical design of the system (upgrades or new), taking into account all types of users, data sources, and other considerations related to development	2 months after contract signing
Systems and digital solution implemented (upgrades).	Launch the system with the improvement under implementation. Upgraded or newly designed data system, protocols, and guidance	5 months after contract signing
Training, communication, and knowledge-transfer materials	Summary of stakeholder training and capacity-building outcomes. Communication and knowledge transfer products finalized.	7 months after contract signing.
100% of maintenance hours delivered.		12 months after contract signing
Final Consolidated Report	Complete documentation, recommendations, and validation outcomes.	13 months after the contract signing.

### Requirements for the Consulting Firm and Key Personnel

The consulting firm must have experience in the fields required for the implementation of the project. Details regarding academic qualifications, areas of expertise, and technical/practical experience from similar work or consulting projects must be presented in signed resumes.

To carry out the study activities, the consulting firm must have at a minimum:

- Experience in implementing projects for the development of e-commerce platforms and logistics management. –
- Experience in developing platforms that required the integration of multiple systems, implementation of APIs, databases, and reporting. –
- Experience in developing platforms or web development. Preferably, these should be related to rural development. –
- It will be valued if the consulting team has local staff who understand and can interpret the current and future needs of Belize, and who have experience also in other countries working on digitization projects related to agriculture, voucher exchange, and rural development

### Requirements for Key Personnel

The team may consist of any number of members as long as it includes at least the following professional profiles. While it is recommended to have specialists in each of the areas for the profiles associated with technological development, it will not be grounds for exclusion if one team member covers several of these roles, provided that the necessary capabilities for the success of the project are justified and ensured. Likewise, it is recommended that the firm assesses the need to have multiple people with the same profile based on the defined objectives, scope, and timelines. The firm will ensure the consolidation of a team capable of conducting work meetings and social spaces in English.

**Software Architect and Technical Leader:**

Professional in computer engineering, systems, data analysis, software, and related fields. Postgraduate degree in areas associated with IT architectures, software engineering, enterprise software architecture, information technology, or related fields. Minimum of ten (10) years of experience in projects involving the design and development of software architectures and/or solutions in reference architectures and Microsoft platforms, .NET, Microsoft SQL Server, C#, Entity Framework, SOA architectures, microservices, and messaging and communication protocols. Knowledge of frameworks such as Angular, React. Experience in design, architecture, services, and integration patterns.

**Programmer:**

Professional in computer engineering, systems, data analysis, software, and related fields, with at least seven (7) years of professional experience in project development and database support, experience in developing monitoring, reporting, and verification systems, including training on the systems. Professional experience in organizing computer systems hardware and servers. Experience in implementing WhatsApp integrations and developing e-commerce applications.

**Test Engineer:** Professional degree in systems engineering, software engineering, electronic engineering, or related fields. Minimum of five (5) years of experience in software and/or application development projects and software development (PHP, AJAX, JAVASCRIPT). Experience with the Scrum methodology, in structuring test cases, and executing concurrency tests. Experience in implementing unit tests.

**UX Designer:** Professional in web design, graphic design, digital design, multimedia design, or related fields. Minimum of three (3) years of experience in web design, user experience (UX) design, user interface (UI) design, interaction design, or visual design, including proficiency with layout and mockup tools. Proficient in front-end languages, HTML and CSS; web accessibility and design tools.

**Product Manager:** Professional degree in systems engineering, software engineering, electronic engineering, or related fields. Minimum of seven (7) years of work experience in gathering functional and non-functional requirements, defining User Stories and Use Cases, defining test cases, and quality assurance. Experience in agile methodologies. Experience with digital systems in the field of climate change is desirable.

**Communicator:** Professional with a bachelor's degree in marketing, social communication, graphic design, and/or related fields. Proven experience in communicating environmental or climate change topics, in designing and implementing communication plans and strategies, and in organizing workshops and events. Knowledge of Belize is desirable.

**4. Design/implement an Agroforestry-based Products Characterization and Certification path for Belizean cacao and develop an Agroforestry-based Products Price Payment Formula study**

**Type: Consulting firm**

**Note:** Previous the implementation stage, an assessment will be conducted to determine whether any of the consulting firm processes identified for this PSG should be consolidated into one consulting firm contract responsible for the overall value chain component. This decision will depend on the market research carried out on potential service providers for all procurement processes included in this document.

**Background (TO BE COMPLETED)**

**Overall Objective**

To develop (a) an actionable product characterization and certification pathway for Belizean cacao (and relevant agroforestry-based products, where applicable) and (b) a transparent and equitable price payment formula and premium package that contributes to fair compensation for suppliers who meet quality, traceability, EUDR and other sustainability requirements

**Specific Objectives**

Product characterization and certification pathway

1. Analyze the Belizean cacao sector (production systems, post-harvest practices, quality attributes, sustainability characteristics).
2. Identify and document unique physical, sensory, environmental, and social attributes that support differentiation in international markets.
3. Assess relevant voluntary sustainability standards, certification schemes, and verification mechanisms (e.g., organic, fair trade, deforestation-free, origin-based and/or quality certifications).
4. Evaluate costs, benefits, feasibility, and market relevance of priority certification options.
5. Develop a market-aligned certification pathway and implementation roadmap (EU focus).

Price payment formula and premium package

6. Analyze existing pricing, payment, and incentive mechanisms in relevant Belize value chains.
7. Assess international pricing structures and sustainability premiums applicable to EUDR-compliant products.
8. Quantify compliance-related costs faced by producers, cooperatives, and processors (including traceability and verification).
9. Design a price payment formula and premium package that promotes fairness, inclusion, and long-term sustainability.

**Scope of service:**

The consulting firm will provide integrated analytical and advisory services across (i) product characterization and certification and (ii) sustainability-linked pricing and incentives, including:

**Product Characterization and Certification Pathway**

- Sector diagnostic: production systems, post-harvest/processing, quality management, sustainability profile.
- Product characterization: document cacao's physical and sensory profile (including quality attributes relevant to specialty markets), and environmental/social attributes supporting differentiation.

- Certification landscape: assess voluntary standards and verification mechanisms relevant to target markets (EU focus).
- Feasibility analysis: costs, benefits, institutional requirements, and readiness gaps for prioritized options.
- Strategy and roadmap: phased implementation plan, capacity-building needs, governance arrangements, stakeholder coordination, and recommendations for implementation.

### **Price Payment Formula and Premium Package (Cacao + Other Agroforestry-based Products)**

- **Review current price-setting mechanisms, contracts, and payment practices in Belize for cacao and selected agroforestry-based products.**
- Costing: production, post-harvest/processing costs, and incremental costs associated with sustainability/EUDR compliance (e.g., traceability, geolocation, verification, segregation).
- International benchmarking: market reference prices and premium structures (quality premiums, certification premiums, deforestation-free/traceability premiums, risk-sharing mechanisms).
- Develop a transparent formula applicable to raw and value-added products (where relevant).
- Design a premium package agreement: eligibility criteria, performance conditions, verification approach, and payment modalities.
- Consultation and validation with stakeholders (producers, cooperatives, exporters, buyers, public sector).

### **Key Activities**

#### **Activity 1 — Inception and Desk Review**

- Review project documentation, relevant value chain studies, current pricing arrangements, and any existing quality/certification work.
- Agree on commodity scope (cacao + selected agroforestry products for the pricing component), sampling approach (if sensory testing is included), and consultation plan.
- Deliver an inception report with methodology, work plan, and stakeholder engagement approach.

#### **Activity 2 — Sector & Product Characterization (Cacao)**

- Field consultations with producers, cooperatives, MSMEs, processors/exporters.
- Assess production systems, post-harvest practices (fermentation, drying, storage), and quality control processes.
- Document differentiating attributes (physical, sensory, environmental, social), and produce a buyer-facing quality/attribute narrative suitable for market positioning.

#### **Activity 3 — Certification Options Assessment and Pathway Design**

- Identify and assess certification/verification options (voluntary standards and origin/quality schemes).
- Evaluate each option's feasibility: costs, audit burden, governance/ICS requirements, expected market value, and fit with smallholder realities.
- Define the recommended certification pathway, including phased steps and enabling actions (capacity building, systems, governance).

#### **Activity 4 — Pricing, Cost, and Premium Benchmarking**

- Map existing pricing/payment mechanisms and contract structures in Belize.
- Build a cost model (farm + aggregation + processing), including incremental costs for compliance and sustainability performance.
- Benchmark international price references and premium practices in target markets (EU focus).

#### **Activity 5 — Design of Price Payment Formula and Premium Package**

- Propose a transparent formula that combines: market reference price(s), quality differentiation, compliance and sustainability premiums, and risk-sharing/adjustment parameters (where relevant).
- Develop a premium package agreement with: eligibility criteria, verification requirements, payment modalities, and grievance/appeal principles.

#### **Activity 6 — Validation, Refinement, and Finalization**

- Present draft outputs in a validation workshop.
- Incorporate feedback and finalize, certification strategy + pricing mechanism package.

### **5. Expected Outcomes**

- Clear product characterization and differentiation narrative for Belizean cacao.
- Practical, market-aligned certification pathway and roadmap (EU focus).
- Transparent price payment formula and recommendation for a premium package that: improves fairness and incentives for EUDR/sustainability compliance, and accounts for real compliance and quality costs.

<b>Deliverable</b>	<b>Description</b>	<b>Timeline indicative</b>
Inception Report	Methodology; work plan; stakeholder engagement plan; detailed sampling plan for characterization; framework for pricing/premium model	Month 2
Baseline Diagnostics Report	Sector and value chain diagnostic (production/post-harvest/sustainability); mapping of current pricing/payment mechanisms and contracts	Month 4
Product Characterization Report (Interim)	Physical + sensory + sustainability attributes; differentiation narrative; preliminary quality profile and buyer-facing product note	Month 9
Certification Options & Feasibility Assessment	Comparative assessment of certification/verification options (cost/benefit/feasibility/market relevance); shortlist + draft pathway	Month 12
Pricing & Compliance Cost Analysis Report	Cost build-up (production/processing/compliance); international benchmark of premiums; evidence base for formula design	Month 13
Draft Certification Pathway + Draft Price Formula & Premium Package	Draft roadmap (phased implementation); draft price payment formula for raw & value-added products; draft premium agreement (eligibility, verification, modalities)	Month 16

Pilot Implementation & Validation Report	Results of stakeholder validation + pilot design and implementation support; refined parameters based on real-world feedback	Month 20
Final Consolidated Strategy Package	Final product characterization; final certification pathway + implementation roadmap; final validated price formula + premium package + scale/sustainability plan	Month 24

### Institutional Arrangements and Coordination

- The firm reports to the Executing Unit / Implementing Agency designated by the project.
- The firm will coordinate with producers, cooperatives, MSMEs, exporters, relevant public agencies, and project partners.
- The firm will deliver at least one validation workshop and periodic progress briefings.

### Qualification Requirements for the Consulting Firm

#### Core Technical Experience (Required)

- 1. Cacao and agroforestry value chain expertise.** At least 7 years of experience in cacao value chains, including post-harvest, quality upgrading, and market differentiation; experience with agroforestry-based products is an asset.
- 2. Product characterization and/or quality profiling.** Proven experience conducting cacao characterization studies (quality profiling, sensory mapping, grading protocols, or buyer specification work).
- 3. Certification and sustainability standards.** Experience assessing and/or implementing international certification schemes (e.g., organic, Fairtrade, Rainforest Alliance, ISO/quality labels, origin-based certifications such as GI/PGI).
- 4. Market access and competitiveness.** Experience assessing international buyer requirements and specialty market positioning (EU premium/specialty markets preferred).
- 5. Pricing, incentives, and premium mechanisms.** Demonstrated experience developing pricing models, premium structures, incentive schemes, or payment formulas in agricultural value chains; ability to quantify costs and translate them into equitable payment mechanisms.
- 6. Strategy development.** At least three (3) completed assignments producing certification roadmaps, sustainability/quality upgrading strategies, and/or pricing/incentive mechanisms.

**Regional Experience (Preferred).** Experience in Latin America and the Caribbean; smallholder cacao contexts preferred. Belize experience is a strong asset

**Organizational Capacity.** Capacity to mobilize a multidisciplinary team and conduct field consultations and workshops in Belize.

### Key Personnel Requirements

#### Team Leader / Senior Cacao Value Chain & Strategy Specialist - Key Expert 1.

Overall leadership; integration of technical workstreams; deliverable quality control; stakeholder engagement

#### Qualifications

- Advanced degree in Agricultural Economics, Agribusiness, Food Science, Agroforestry, or related field.
- 10+ years of experience in cacao or agroforestry value chains and strategy development.
- Leadership in at least 2 comparable assignments (specialty cacao positioning and/or certification pathways).

### **Cacao Quality & Sensory Analysis Expert - Key Expert 2**

Lead product characterization; contribute to differentiation narrative and buyer-facing specifications.

#### Qualifications

- Degree in Food Science, Sensory Science, Cocoa Technology, or related field.
- 5+ years of experience in cacao flavor profiling, sensory evaluation, post-harvest quality optimization.

### **Certification & Sustainability Specialist - Key Expert 3**

Certification options assessment; feasibility and costing; pathway design and implementation roadmap.

#### Qualifications

- Degree in Sustainability, Environmental Science, Agronomy, Agricultural Certification, or related field.
- 5+ years assessing/implementing certification schemes; experience with audit/ICS and compliance pathway costing.
- Familiarity with EU sustainability expectations, including deforestation-free requirements, is desirable.

### **Market and Trade Specialist (EU Focus) - Key Expert 4**

Market analysis; premium market positioning; buyer requirement translation into strategy.

#### Qualifications

- Degree in Marketing, International Trade, Agribusiness, Economics, or related field.
- 5+ years in market assessments, buyer requirements, product positioning; EU specialty chocolate market experience preferred.

Role

### **Agricultural Economist / Pricing & Incentives Specialist - Key Expert 5.**

Cost and premium benchmarking; develop the price payment formula; design premium package agreement; advise on verification/payment modalities

#### Qualifications

- Degree in Economics, Agricultural Economics, Finance, or related field.
- 7+ years designing pricing models, incentive schemes, premium mechanisms, or value chain cost analyses.
- Demonstrated experience with smallholder cost structures and fairness/inclusion considerations.

Role

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*TO BE COMPLETED (Optional support staff as needed: stakeholder engagement facilitator, data analyst, field coordinator.)*

**5. Feasibility Study and Capacity Strengthening Program for existing Modular Cocoa Processing and Semi-Finished Product Manufacturing in Belize.**

**Type: Consulting Firm**

**Background (TO BE COMPLETED)**

**Overall Objective**

To determine the technical, financial, environmental, and institutional feasibility of establishing a new modular cocoa processing unit or strengthening existing facilities to produce semi-finished cocoa products, and to provide an implementation roadmap and investment program.

**3.2 Specific Objectives**

1. Assess raw material supply, quality, and aggregation logistics to define viable processing capacity (and phased scaling).
2. Evaluate technology options for modular processing and for upgrading existing facilities.
3. Define product portfolio and quality specifications (e.g., liquor, butter, cake, powder) aligned with target markets (including EU).
4. Estimate CAPEX/OPEX, staffing, utilities, food safety requirements, and operational risks.
5. Conduct financial and economic analysis, including sensitivity and risk assessment.
6. Identify environmental and social considerations, permitting requirements, and mitigation measures.
7. Recommend the optimal implementation approach (ownership/business model, governance, PPP/cooperative options).
8. Deliver an actionable investment plan, technical specifications, and procurement packages.
9. Provide support for the implementation of a pilot project informed by the consultancy results.

**Scope of Services**

The firm will provide end-to-end feasibility and implementation planning, covering:

- A. Diagnostic of Existing Capacity of processing in Belize
  - Facility assessments (condition, throughput, bottlenecks, downtime, maintenance practices).
  - Gap analysis for food safety, quality control, utilities, storage, and traceability/segregation.
- B. New Modular Processing Unit Feasibility
  - Concept and sizing options (pilot/modular expandable design).
  - Site screening (land availability, utilities, access roads, environmental constraints).
  - Process design: unit operations from beans to semi-finished products.
- C. Product, Market & Quality Requirements
  - Product selection and specs (industrial vs specialty; liquor/butter/cake/powder).
  - Quality requirements, sampling plan, QC protocols, packaging, shelf-life considerations.
- D. Technology & Engineering Design
  - Process flow diagrams, mass/energy balances (as appropriate).
  - Equipment list, utility requirements, plant layout, building needs.
  - Maintenance plan and spare parts strategy.
- E. Food Safety, Quality & Compliance

- HACCP-based approach, GMP, sanitation design, traceability and lot segregation.
  - Alignment with certification and deforestation-free requirements where applicable.
- F. Financial, Economic & Risk Analysis
- CAPEX/OPEX estimates, unit costs, break-even, IRR/NPV (financial).
  - Economic analysis (jobs, value added, smallholder income, import substitution).
  - Sensitivity analysis (raw material supply, prices, utilities, downtime, exchange rates).
- G. Environmental and Social Considerations
- Environmental and social screening (wastewater, solid waste, emissions/energy, worker safety).
  - Proposed mitigation measures and high-level ESMP/ESHS plan.
- H. Implementation Roadmap & Procurement Packages
- Phased implementation schedule (including commissioning).
  - Institutional and business model recommendations.
  - Procurement plan and bidding documents outline (technical specs, TORs, BoQs where relevant).
- I. Capacity Strengthening Program for existing Modular Cocoa Processing and Semi-Finished Product Manufacturing in Belize. Capacity strengthening program for operators/ cooperatives/ MSMEs.

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### 5) Key Activities (Suggested Work Plan)

1. **Inception & desk review:** existing studies, stakeholder mapping, data gaps, site visit plan.
2. **Supply and operations assessment:** raw material supply analysis, facility audits, logistics mapping.
3. **Technology options assessment:** compare modular unit scenarios vs upgrading existing facilities.
4. **Engineering concept design:** layouts, equipment lists, utilities, staffing, O&M.
5. **Compliance and quality system design:** HACCP/GMP, traceability and segregation protocols.
6. **Financial & economic analysis:** CAPEX/OPEX, business models, sensitivity and risk.
7. **Environmental & social screening:** permits, impacts, mitigation.
8. **Validation workshop:** present options and preferred scenario; incorporate feedback.
9. **Final feasibility package + procurement docs:** final investment plan, technical specs, roadmap.

### 6) Deliverables and Indicative Timeline

*Recommended duration: 6–9 months (typical for robust engineering + financial feasibility and procurement-ready outputs).*

#### Deliverables

Deliverable	Description	Timeline indicative
Inception Report	Methodology, data plan, stakeholder engagement, site visit schedule	Weeks 3
Diagnostic & Supply Assessment Report	Existing facilities audit + supply/logistics assessment + baseline constraints	Weeks 10
Technology Options & Concept Design Report	Options comparison, process flows, layouts, equipment list, utilities	Weeks 16

Draft Feasibility Study	CAPEX/OPEX, financial/economic analysis, E&S screening, risk analysis, preferred option	Week 20
Procurement & Implementation Package	Technical specs, procurement plan, O&M plan, training plan, phased roadmap	Week 24
Final Feasibility & Investment Plan (Validated)	Final documents incorporating stakeholder feedback + validation workshop report	Week 30
Or Final Capacity Strengthening Program for existing Modular Cocoa Processing and Semi-Finished Product Manufacturing	Final documents incorporating stakeholder feedback of Strengthening Program.	Weeks 32

### Institutional Arrangements

- The firm reports to the Executing Unit and coordinates with MAFSE, producer organizations, MSMEs, and any facility owners/operators.
- The firm will conduct at least one validation workshop with key stakeholders and present a final investment decision package.

### Qualification Requirements — Consulting Firm

#### Minimum Firm Experience

The firm (or consortium) must demonstrate:

1. Agro-industrial feasibility studies. At least 3 similar assignments in the last 10 years of experience in feasibility studies and/or detailed design for agro-processing/food processing facilities, involving process design + CAPEX/OPEX + financial analysis.
2. Cocoa processing or analogous commodities. Experience with studies in cocoa processing or closely related commodities (coffee, dairy, edible oils, spices, grain milling) with comparable unit operations (roasting/pressing/grinding/powder production).
3. Engineering and technical design capacity. Demonstrated capacity to produce process flow diagrams, equipment specifications, plant layout concepts, and utility designs suitable for procurement.
4. Food safety and quality systems. Experience with HACCP/GMP, quality control labs, sanitation design, and traceability/lot control in processing environments.
5. Financial and business modeling. Expertise in cost modeling and investment appraisal (NPV/IRR/break-even, sensitivity analysis).

#### Preferred Experience

- Environmental and social screening. Experience conducting E&S screening for industrial/agro-industrial facilities and preparing mitigation recommendations
- Experience in smallholder/cooperative settings and developing business models suitable for producer organizations.
- Experience in Latin America and the Caribbean (Belize/CARICOM is an advantage).
- Experience designing systems supportive of deforestation-free traceability for EU market supply chains.

Organizational Capacity. Ability to mobilize field teams, conduct on-site engineering diagnostics, and deliver stakeholder workshops in Belize.

### Key Personnel Requirements

One expert may cover multiple roles if justified, but the proposal must demonstrate all competencies.

**Team Leader / Senior Agro-Industrial Engineer - Key Expert 1**

Overall technical leadership, quality assurance, stakeholder management, final recommendations

Qualifications

- Advanced degree in Process/Chemical/Mechanical/Agro-industrial Engineering or related.
- **8+ years** leading agro-industrial processing projects and feasibility studies.
- Experience leading multidisciplinary teams and delivering procurement-ready specs.

**Cocoa Processing Technologist / Food Process Specialist - Key Expert 2**

Define process steps, product specs (liquor/butter/cake/powder), quality controls, processing standards.

Qualifications

- Degree in Food Science, Cocoa Technology, Chemical Engineering, or related.
- 8+ years in cocoa processing (or comparable food processing) including processing parameters, yield optimization, and product specs.

**Mechanical/Process and Electrical/Utilities Engineer (Equipment & Layout, Power, Steam, Water, Waste) – Key Expert 3**

Equipment list/specifications, layout concepts, utilities requirements, maintainability review. This includes Utility sizing, power reliability approach, energy efficiency opportunities

Qualifications

- Degree in Mechanical/Process Electrical/Industrial Engineering.
- **7+ years** specifying industrial processing equipment, plant layout, utilities integration, industrial utilities design and integration (power systems, backup, water systems, effluent management inputs)

**Financial Analyst / Agro-industrial Economist - Key Expert 4.**

Financial/economic feasibility, price assumptions, profitability scenarios, financing options.

Qualifications

- Degree in Economics/Finance/Agricultural Economics/Business.
- 8+ years in CAPEX/OPEX estimation, financial modeling, sensitivity/risk analysis, and business model design.

**Environmental & Social Specialist (E&S / EHS) - Key Expert 5**

Qualifications

- Degree in Environmental Engineering/Science, Social Science, or related.
- 7+ years in E&S screening for industrial/agro-industrial projects. Role
- Environmental and social risk screening, mitigation measures, permitting pathways, worker safety considerations.

**(Optional but recommended): Food Safety / HACCP & Quality Systems Specialist**

Food safety plan, QC lab recommendations, traceability/lot segregation protocols

Qualifications

- Certification/experience in HACCP/ISO 22000/GMP implementation.
- 5+ years in food safety systems for processing plants.