A logo of a company

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Room 707, Shwe Hintha Tower B, Shwe Hintha St, Yangon, Myanmar

**Yangon, 18 March 2025**

**Terms of Reference (TOR) for Procurement of Corn Dryer in South Shan, MYANMAR for the CROPLOS Project - Crop Protection Localized Solution**

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**1. Background**

The launch of the CROPLOS Project represents a significant initiative aimed at bolstering maize crop protection in Shan State, Myanmar. The CROPLOS project aims to provide long-term solutions by integrating modern agricultural technologies, including efficient drying systems, to improve post-harvest processing and reduce crop losses

**2. Objective**

The objective of this procurement is to acquire a **high-efficiency corn dryer** suitable for maize processing to ensure improved post-harvest quality and reduce crop losses

This procurement is issued by New CrossRoad Asia - hereafter “NCRA”

**3. Scope of Work**

Suppliers are invited to submit an offer covering the following requirements

* Supply of the dryer according to the minimum technical requirements provided in this Terms of Reference
* Deliver the selected dryer to the Aye Thar Yar Industrial Zone in Shan State, Myanmar. (the exact deliver address might slightly change due to safety & security and logistics reasons; hence the Bidder is invited to provide also a range of deliver cost e.g., +/- 10%).
* Install and commission the dryer, ensuring full operational functionality.
* Provide a user manual and operational guidelines in both English and Burmese
* Provide training to one (1) Warehouse Manager and two (2) Project Staff member on:
  + Equipment Operation
  + Troubleshooting and Diagnostics
  + Routine Maintenance
  + Safety Protocols
  + Emergency Procedures
* Provide service and maintenance of the dryer for a minimum period of three (3) years post-installation, including:
* Scheduled maintenance visits at least once quarterly.
* Emergency repair support with a maximum response time of 72 hours.
* Ensure spare parts availability for at least five (5) years post-installation.
* Offer remote technical support and an escalation process for urgent maintenance requirements.
* Provide a detailed warranty agreement

**4. Supplier Eligibility Criteria**

The Bidder must meet the following requirements:

* Being legally registered to operate in Myanmar as a private company to provide agricultural equipment
* Certification of compliance with environmental and safety regulations in Myanmar
* Certification of Compliance with Myanmar’s agricultural equipment standards and regulations.
* Minimum three (3) years of experience in installing and maintaining agricultural dryers in Myanmar
* Proven track record of successful dryer installations in similar agricultural settings
* On-site capacity to provide after-sales service and maintenance in the Shan State of Myanmar
* Previous experience in working with international NGOs, multilateral institutions, government projects, or donor-funded agricultural initiatives in Myanmar, supplying dryers and/or other agricultural equipment for crop production and protection

**5. Technical Specifications**

The dryer must meet the following technical criteria:

### **A. Minimum Technical Specifications**

1. **Prime Mover**: 9.0-10.0 kW Electric Motor
2. **Type**: Batch, Recirculating, Indirect Heating
3. **Dryer Capacity (MT)**: 22 T – 25 T
4. **Moisture Gradient (%)**: 2.0, Maximum
5. **Drying Rate (%/h)**: 2.0
6. **Product Quality**:
   * **Cracked Grain, % Increase**: 10, Maximum
   * **Broken/Split Kernels, % Increase**: 7, Maximum
7. **Drying Loss/Spillage**: 1%, Maximum
8. **Drying Efficiency**: 75%
9. **Heating System Efficiency**: 90%
10. **Classification**: Vertical Bin
11. **Loading/Unloading Conveyor with Hopper**
12. **Fuel Consumption**: 150Kg/h (Maximum)
13. **Dust Emission Control**: Aspirator Fan
14. **Fan Type**: Axial Flow
15. **Control Panel with Housing**
16. **With Drying Bin Stirrer**
17. **With Ladder**
18. The dried grain shall have no additional discoloration, no traces of unburned fuel or ashes on grain surface, and no fermented or musty smell.

### **B. Features & Accessories**

1. **Material:**
   * **Outer Structure:** Galvanized steel or stainless steel for corrosion resistance.
   * **Drying Chamber:** Heat-resistant aluminum alloy for efficient heat transfer.
   * **Fan Blades:** Aluminum for lightweight and efficient air circulation.
   * **Burner Components:** Stainless steel for durability under high temperatures.
   * **Control Panel:** Plastic/ABS casing with digital interface for ease of operation.
2. **Dimension:**
   * **Length(mm): 2400-2800**
   * **Width(mm): 2900-3200**
   * **Height(mm): 11000-11500**
3. **Energy efficiency:** Must be designed for **low energy consumption**.
4. **Monitoring Instruments**:
   * Burner Thermometer
   * Grain Thermometer
   * Grain Moisture Meter
   * Grain Sampler
   * With Weighing Scale
5. **Temperature Control:** Digital thermostat with an automatic shutdown function to prevent overheating.
6. **Dust Control**: Provision of Dust Emission Control
7. **Airflow System:** High-powered axial or centrifugal fans to ensure uniform drying.
8. **Operator Safety**: Provision of Ear Muffs & Goggles for Operator
9. **Safety Features**:
   * Emergency Stop Button/Electric Driver Dryer
   * Provision for Fire Control
   * Protection for All Moving Parts
   * Proper ventilation

**6. Selection Criteria**

A Committee to select offers is appointed to represent the key stakeholders of the project and the final users of the dryer

The Committee evaluates the offers in anonymous form, separately for Financial and Technical proposals, according to the following scoring and weight:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Evaluation Criteria** | **Score** | **Weight** |
| **Financial Offer** | Dryer cost. | 3 (minimum) to 30 (best offer) | 3 to 30 |
| Delivery and installation cost |
| Maintenance and warranty provision cost |
| **Technical Offer** | Technical specifications | 1 (minimum) to 25 (best offer) | 6 to 60 |
| Installation | 1 (minimum) to 5 (best offer) |
| Training | 1 (minimum) to 5 (best offer) |
| Spare parts | 1 (minimum) to 10 (best offer) |
| Maintenance | 1 (minimum) to 10 (best offer) |
| Experience with social enterprises and/or NGOs | 1 (minimum) to 5 (best offer) |

**7. Proposal Submission Requirements**

Interested bidders must submit technical and financial proposal separately at NCRA email and/or office via envelope, within the **18th of April 2025 at 13,00 GMT +6.30 (Yangon time)**

* **For offers submitted via email:**
  + **Send technical offer to** [information@ncramyanmar.com](mailto:information@ncramyanmar.com) **with subject “**Procurement of Corn DryerCROPLOS Technical Offer”
  + **Send financial offer to** [information@ncramyanmar.com](mailto:information@ncramyanmar.com) **with subject “**Procurement of Corn DryerCROPLOS Financial Offer”
* **For offers submitted via envelope at the following address:**
* **2-C That, Tha Nar Yeik Thar Street, Middle Shwe Gone Taking Ward, Bahan Township, Yangon, 11201**
  + **One envelope bearing the subject “**Procurement of Corn DryerCROPLOS Technical Offer”
  + **One envelope bearing the subject "Procurement** of Corn DryerCROPLOS Financial Offer”
* **Technical Offer**, including the following elements, as per Technical Offer Template attached. Additional documentation can be submitted but offers not following the Technical Offer Template will not be taken into consideration
  + **Company profile** with registration documents and proof of legal operation in Myanmar along with prior experience and references from similar projects.
  + Specifications of the proposed dryer.
  + Installation plan and timeline.
  + Spare parts availability and supplier's after-sales service strategy.
  + Training methodology for farmers and project staff.
  + **Implementation timeline** outlining key milestones from delivery to commissioning.
  + **Maintenance and Service Plan** specifying Periodic inspection schedules and emergency response framework.
* **Financial Offer**, detailing the full cost breakdown, including the following elements, as per Financial Offer Template attached. Additional documentation can be submitted but offers not following the Financial Offer Template will not be taken into consideration
  + Dryer cost
  + Delivery and installation cost
  + Maintenance and warranty provisions’ cost
  + Payment Terms and Conditions
  + Commercial Tax

**8. Contractual Obligations**

The selected supplier must:

* Deliver and install the dryer **within the agreed timeline**.
* Provide **warranty coverage** for a minimum of **two (2) year**.
* Ensure **on-site training** for designated personnel.
* Conduct at least maintenance **checks quarterly** for three (3) years.
* Submit a **detailed post-installation report**, including testing results and farmer training summary.
* Maintain strict compliance with **procurement integrity and ethical standards** as required by the funding organization.

**9. Corrupt, Fraudulent, Collusive, and Coercive Practices**

The procuring organization reserves the right to reject any bid or terminate any contract if it determines that the bidder or contractor has engaged in corrupt, fraudulent, collusive, or coercive practices. Definitions of these practices will be as per the funding agency’s procurement policy.

**10. Pre-Bid Conference**

A pre-bid conference will be held on 11 April 2025. Prospective bidders are encouraged to attend to clarify any questions regarding the bidding process.

**11. Clarification and Amendment of Bidding Documents**

Bidders may request clarifications on bidding documents up to 15 April 2025. Responses to queries and amendments (if any) will be communicated to all bidders via email.

**12. Bid and Payment Currencies**

All bids must be expressed in Kyat (MMK), and payments will be made in Kyat (MMK). Any applicable exchange rates for conversions will follow the funding organization’s guidelines.

**13. Signing of the Contract**

The successful bidder will be required to sign a contract within a week of receiving the notification of award. Failure to comply may result in forfeiture of the award.

**14. Timeline**

* **Bid Submission Deadline:** 18 April 2025
* **Pre-Bid Conference:** 11 April 2025
* **Clarification and Amendment of Bidding Documents:** 15 April 2025
* **Signing of the Contract:** 22 April 2025
* **Delivery & Installation Completion:** To be specified in contract, approx. three weeks after contract signature
* **Training & Commissioning:** To be specified in contract, approx. two weeks after installation
* **Maintenance Support Duration:** Minimum two (2) years post-installation

**15. Contact Information**

For further inquiries, bidders may contact:

Contact Person's Name: Vijay Dhayal

Organization Name New Crossroads Asia Myanmar Ltd

Address]82-C, Thar Tha Nar Yeik Thar Street,

Middle Shwe Gone Taing Ward, Bahan Township, Yangon

Email vijaydhayal@ncramyanmar.com

Phone Number + 95 9255 90 1514

**Terms of Reference (TOR) for Procurement of Corn Dryer**

CROPLOS Project - Crop Protection Localized Solution

**TECHNICAL OFFER TEMPLATE**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bidder Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bidder Contact person

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Email\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Phone \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MANDATORY Company Requirements**

|  |  |
| --- | --- |
| Company name |  |
| Company Registration number |  |
| Attached Company Registration certificate |  |
| Certification of compliance with environmental and safety regulations in Myanmar |  |
| Certification of Compliance with Myanmar’s agricultural equipment standards and regulations |  |
| Number of years of experience in installing and maintaining agricultural dryers in Myanmar |  |
| Track record of successful dryer installations in similar agricultural settings |  |
| On-site capacity to to provide after-sales service and maintenance in Shan State of Myanmar |  |

**SIGNATURE, DATE AND STAMP**

|  |  |  |
| --- | --- | --- |
|  | **Evaluation Criteria** | **BIDDER TECHNICAL OFFER** |
| **Technical Offer** | **Technical specifications**  Minimum technical specifications:   1. **Prime Mover**: 9.0-10.0 kW Electric Motor 2. **Type**: Batch, Recirculating, Indirect Heating 3. **Dryer Capacity (MT)**: 22 T – 25 T 4. **Moisture Gradient (%)**: 2.0, Maximum 5. **Drying Rate (%/h)**: 2.0 6. **Product Quality**:    * **Cracked Grain, % Increase**: 10, Maximum    * **Broken/Split Kernels, % Increase**: 7, Maximum 7. **Drying Loss/Spillage**: 1%, Maximum 8. **Drying Efficiency**: 75% 9. **Heating System Efficiency**: 90% 10. **Classification**: Vertical Bin 11. **Loading/Unloading Conveyor with Hopper** 12. **Fuel Consumption**: 150Kg/h (Maximum) 13. **Dust Emission Control**: Aspirator Fan 14. **Fan Type**: Axial Flow 15. **Control Panel with Housing** 16. **With Drying Bin Stirrer** 17. **With Ladder** 18. The dried grain shall have no additional discoloration, no traces of unburned fuel or ashes on grain surface, and no fermented or musty smell. 19. **Material:**     * **Outer Structure:** Galvanized steel or stainless steel for corrosion resistance.     * **Drying Chamber:** Heat-resistant aluminum alloy for efficient heat transfer.     * **Fan Blades:** Aluminum for lightweight and efficient air circulation.     * **Burner Components:** Stainless steel for durability under high temperatures.     * **Control Panel:** Plastic/ABS casing with digital interface for ease of operation. 20. **Dimension:**     * **Length(mm): 2400-2800**     * **Width(mm): 2900-3200**     * **Height(mm): 11000-11500** 21. **Energy efficiency:** Must be designed for **low energy consumption**. 22. **Monitoring Instruments**:     * Burner Thermometer     * Grain Thermometer     * Grain Moisture Meter     * Grain Sampler     * With Weighing Scale 23. **Temperature Control:** Digital thermostat with an automatic shutdown function to prevent overheating. 24. **Dust Control**: Provision of Dust Emission Control 25. **Airflow System:** High-powered axial or centrifugal fans to ensure uniform drying. 26. **Operator Safety**: Provision of Ear Muffs & Goggles for Operator 27. **Safety Features**:     * Emergency Stop Button/Electric Driver Dryer     * Provision for Fire Control     * Protection for All Moving Parts     * Proper ventilation |  |
| **Installation**  Please provide installation plan and timeline |  |
| **Training**  Please provide training plan |  |
| **Spare parts**  Please provide list of spare parts available on-site and timeline to procure spare parts  Please provide plan to ensure spare parts available for five (5) years |  |
| **Maintenance**  Please provide a plan for service and maintenance of the dryer for a minimum period of three (3) years post-installation, including:   * Scheduled maintenance visits at least bi-annually. * Emergency repair support with a maximum response time of 72 hours. |  |
| **Experience with social enterprises and/or NGOs**  Please provide experience with social enterprise and/or NGOs in the agriculture sector in Myanmar   * Years of experience * References |  |

**Terms of Reference (TOR) for Procurement of Corn Dryer**

CROPLOS Project - Crop Protection Localized Solution

**FINANCIAL OFFER TEMPLATE**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bidder Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bidder Contact person

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Email\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Phone \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
|  |  | **USD** |
| **Financial Offer** | **Dryer cost**  Please provide the price of the dryer according to the technical specifications provided separately in US Dollars |  |
| **Delivery and installation cost**  Please provide the price of the delivery to the designed location and installation according to the technical specifications provided separately in US Dollars |  |
| **Maintenance and warranty provision cost**  Please provide the price of the delivery to the designed location and installation according to the technical specifications provided separately in US Dollars |  |
|  | Payment Terms & Conditions |  |
|  | Commercial Tax 5 % |  |

**SIGNATURE, DATE AND STAMP**