

# Langar Credit Protocol

An ISO-aligned verification framework for  
community-based food security contributions  
to SDG 2 and SDG 12 in low-data contexts

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# Preface

Thousands of community kitchens in gurdwara langar, temple annadanam, sufi langar, and community centers across India serve free meals to millions of people annually. These community kitchens help reduce hunger and food waste. However, their contributions remain undetected in the official government data. When India reports progress on SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption), these community-based efforts are not counted, making it difficult for them to attract funding and gain recognition.

The Langar Credit Protocol was developed as a step-by-step verification system that allows community kitchens and community cafés (CKCC) to demonstrate their contributions in a credible and standardized manner. The protocol is based on three international quality standards (ISO 14064-3, ISO/IEC 17029, and ISO 20121) but is specifically adapted for volunteer-run operations with limited digital systems for data recording.

Six sustainability indicators were created against which community kitchens can be verified: the type of cooking fuel they use (clean energy like LPG or traditional wood), whether they use reusable plates or disposable ones, the nutritional quality of meals, where they source their ingredients, whether they cook fresh food or redistribute surplus, and how many meals they serve annually. Based on their performance, kitchens receive Silver, Gold or Platinum certification levels.

To make the verification process practical and affordable, a community-based verifier model called Langar Seva Verifiers was designed. These are trained local volunteers who complete a six-hour training program and conduct on-site verification of CKCC.

The Langar Credit Protocol provides community kitchens with a tool to demonstrate their impact using the same quality standards that international organizations trust. The NITI Aayog can include CKCC data in India's SDG progress reports. Corporate donors can identify reliable CKCC partnerships and report their contributions in annual sustainability reports.

This first edition of the protocol stands at an unusual intersection between centuries-old community traditions of langar and contemporary international MRV standards. By making the invisible visible, the CKCC hopes to obtain more recognition and resources while upholding human dignity and ensuring community-based food security.

Looking forward to your feedback.

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An ISO-aligned verification framework for community-based food security contributions to SDG 2 and SDG 12 in low-data contexts.

## 0.1 Document Information

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Intended audience: Community kitchen and café operators, Langar Seva Verifiers, Corporate CSR and ESG Departments, SDG 2 and SDG 12 monitoring and reporting agencies in India.

## 0.2 Foreword

This document establishes the Langar Credit Protocol (LCP) as a verification framework for community-based food-security operations in India. The protocol specifies procedures for verifying meal provision with sustainability performance across prioritized operational indicators. The LCP aligns with the ISO 14064-3:2019 verification principles, ISO/IEC 17029:2019 conformity assessment requirements, and ISO 20121:2024 sustainability management systems standards.

## 0.3 Introduction

Community kitchens and cafes (CKCC) contribute to community-based food security, thereby addressing Sustainable Development Goal (SDG) 2.1 (zero hunger) in India. This framework specifies the verification procedures for CKCC operations in the country.

Langar Credits shall be considered as part of the impact assurance assets. It shall be excluded from additionality demonstration, carbon accounting, and financial instrument certification.

## **0.4 Registry**

The Registry shall operate as a centralized quality management body, ensuring compliance with the ISO/IEC 17029:2019 Clause 6 requirements adapted to community-based food security verification contexts.

Langar Carbon shall be the Registry. The registry shall be contacted through email [langarcarbon@gmail.com](mailto:langarcarbon@gmail.com) and phone +91 80 8020 3060 (from 11 am to 4 pm IST).

The Registry shall provide the following services for FREE:

1. Training to Verifiers
2. Bi-annual re-training to Verifiers
3. Training to Community Kitchens
4. Training to Community Cafes
5. Allocation of Langar Credits
6. Retirement of Langar Credits
7. Issuance of Langar Credit Certificate
8. Quality Assurance

Langar Credit and Langar Carbon are the Trademarks under approval) in India.

## **0.5 Conflict of Interest**

The author is the Executive Director of Langar Carbon, which operates as the registry for the Langar Credit Protocol described herein. Langar Carbon provides the specified services free of charge and maintains no financial relationship with community kitchens or cafes or Langar Seva Verifiers. No external funding was received for the development of this protocol, and the work is intended to support community-based food security without any commercial intent.

# 1 Scope

## 1.1 General

The protocol establishes a tier classification based on sustainability performance across prioritized operational indicators and quantifies the verified impact through the issuance of a Langar Credit (LC).

The tier classification distinguishes foundational Silver (4–6 points), established Gold (7–9 points), and exemplary Platinum (10-12 points) performance based on risk-based assurance levels.

## 1.2 Inclusions

The Protocol applies to CKCC operations that meet all criteria.

- a) Minimum 1000 verified meals annually;
- b) Service without discrimination (open access);
- c) Charitable intent (not for profit);
- d) Basic recordkeeping capacity (e.g., meal logs and procurement receipts).

## 1.3 Exclusions

The protocol shall exclude the following categories of operations that fail to meet eligibility or verification feasibility requirements:

- a) Commercial operations for-profit requiring engagement with commercial MRV frameworks;
- b) Institutional services, such as employee canteens and school programs, aimed primarily at internal beneficiaries rather than community-based food security;
- c) Raw food distributions comprising uncooked grains or rice packets that constitute commodity distributions rather than prepared meal provisions;
- d) Informal household feeding operations delivering fewer than 1000 verified meals annually and lacking sufficient documentation to support verification;
- e) Fee-based food banks involved in surplus food redistribution with remuneration, introducing a profit motive that is incompatible with the protocol's Seva ethos.

## 2. Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes the requirements of this document. For dated references, only the edition cited is applicable. For undated references, the latest edition of the referenced document, including amendments, is applicable.

### 2.1

ISO 14064-3:2019, Greenhouse gases : Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions

### 2.2

ISO/IEC 17029:2019, Conformity assessment : General principles and requirements for validation and verification bodies

### 2.3

ISO 20121:2024, Event sustainability management systems : Requirements with guidance for use

### 2.4

ISO 37101:2016, Sustainable development in *communities* : Management system for *sustainable development* : Requirements with guidance for use

### 2.5

ISO 22000:2018, NQA Implementation Guide (2018)

### 2.6

ISO 14065:2020, IAF MD 6:2024 Mandatory document for ISO 14065:2020 (Issue 3, Version 2).

### 2.7

ISO 26000:2010, Guidance on Social Responsibility.

### 2.8

Inter-rater Reliability: The kappa statistic. *Biochemia Medica*, 22(3), 276–282, McHugh, M. L. (2012).

### 2.9

UNESCO Chair on Global Health. (2023). Food security, food systems and community-based actions.

### 2.10

Ministry of Health and Family Welfare, India. (2025). National action plan on food security and climate change.

### 3. Terms and Definitions

For the purposes of this document, the terms and definitions given in ISO 14064-3:2019, ISO/IEC 17029:2019, and ISO 20121:2024, and the following apply.

3.1

Langar Credit (LC)

certified impact assurance asset representing 1000 verified meals issued post-tier verification

3.2

verified meal (VM)

meal served during reporting period confirmed through evidence triangulation within 5% materiality threshold

3.3

sustainability score

unweighted sum of four scored indicators

3.4

tier classification

performance categorization as Silver (4-6 points), Gold (7-9 points), or Platinum (10-12 points) based on sustainability score

3.5

open access

meal service available to all beneficiaries without discrimination by caste, religion, gender, or economic status

3.6

majority practice

≥70% proportion of operation type over reporting period establishing operational model classification

3.7

Langar Seva Verifier (LSV)

individual certified through 6-hour training and certification; possessing competence for tier verification

3.8

evidence triangulation

minimum three independent sources per indicator with reliability weighting totalling ≥2.1 (high=1.0, medium=0.7, low=0.3)

## **4. General Principles**

### **4.1 Registry Impartiality**

The Registry shall assign Langar Seva Verifiers(LSV), prioritizing home district candidates for local knowledge while excluding personal and financial relationships. The Registry shall not have any financial relationship with the CKCCs or LSVs.

### **4.2 Verification principles**

Verification shall follow the principles adapted from ISO 14064-3:2019, ensuring integrity, transparency, and stakeholder confidence.

### **4.3 Evidence-based assessment**

Verification conclusions shall be derived from sufficient, appropriate evidence through triangulation of minimum three independent sources per indicator. Total reliability  $\geq 2.1$ .

### **4.4 Transparency and reproducibility**

Verification reports should document the evidence sources, scoring rationale, and materiality assessments to enable independent reviews. The Registry shall publish certificates with QR code access to redacted reports to maintain public accountability.

### **4.5 Voluntary service ethos**

LSVs should contribute their expertise as Seva, without financial motives. Fixed honoraria (paid directly by CKCC to LSV) shall be INR 500 per assignment.

### **4.6 Community-centered verification**

Verification should respect the operational realities of volunteer management, including low record keeping, seasonal meal volumes, and cultural cooking practices. Cultural exemption shall permit up to 30% Category C fuel use for preparing traditional food.

### **4.7 Uniform national standards**

Seventy percent of the majority practice thresholds shall apply consistently across India without regional recalibration. Tier mathematics terciles (4-6, 7-9, and 10-12) shall remain fixed.

### **4.8 Inter-rater reliability**

The annual calibration of LSV shall achieve kappa  $\geq 0.80$ .

## 5 Sustainability Indicators

### 5.1 Meal Count (SDG 2.1)

Meal Count shall quantify total verified meals (VM) within  $\pm 5\%$  materiality threshold serving Langar Credit calculation. The counting shall triangulate three sources: a) meal service logs, b) stakeholder interviews, and c) facility capacity assessment.

### 5.2 Scored Indicators (SDG 12.2, 12.5, 12.7)

Four scored indicators (Fuel Type, Utensil Type, Sourcing Type, Meal Type) shall produce sustainability score ranging 4–12 points.

$$S = \text{Fuel Type (F)} + \text{Utensil Type (U)} + \text{Sourcing Type (D)} + \text{Meal Type (M)}$$

Categorical scoring shall be applied as follows:

Category A = 3 points (exemplary)

Category B = 2 points (transitional)

Category C = 1 point (foundational)

**Table 1:** Sustainability Indicators

Indicator	Score A	Score B	Score C	Evidence Requirements	SDG
Fuel Type (F)	Clean Fuel	Improved biomass stove	Traditional biomass stove	Fuel Bills + photos + interview/testimony	12.2
Utensil Type (U)	Reusable	Reusable + Disposable	Disposable	Inventory + photos + interview/testimony	12.5
Sourcing Type (D)	District 70%+	State 70%+	Inter-state	Invoices + photos + interview/testimony	12.7
Meal Type (M)	Plant and Dairy	Includes Eggs	Includes Meat/Fish	Menu Logs + photos + interview/testimony	12.2

Note: For community kitchens, up to 30% of Category C fuel use for traditional preparations. For community cafés, the Fuel Type indicator score shall be recorded by default as category A.

### 5.3 Operation Type (SDG 12.3)

**Table 2:** Operation Type classification

Ops Type	Definition	Fuel Type category
Community Kitchen	≥70% centralized cooking	Categories A/B/C with Cultural exemption of up to 30% for Category C fuel use for traditional preparations.
Community Cafe	≥70% surplus redistribution	Category A (by default)

Note: A ≥70% majority practice shall determine category assignment across the reporting period. Evidence triangulation shall require a minimum of three independent sources per indicator achieving ≥2.1 total reliability weight.

## 6. Tier Classification

### 6.1 Tier framework

Tier classification shall distinguish performance levels through mathematically balanced tercile thresholds applied to the sustainability score S (4–12 points). The three tiers shall implement risk-based assurance to calibrate the verification intensity of performance claims.

### 6.2 Tier definitions

6.2.1 The silver tier (score = 4-6) shall recognize foundational operations.

6.2.2 Gold tier (score = 7–9) shall recognize established operations.

6.2.3 Platinum tier (score = 10-12) shall recognize exemplary leadership operations.

## 7. Langar Credits

Langar Credits (LC) shall be issued only after post-tier verification using the following:

$$LC = \text{floor}[(VM + 500) / 1000]$$

where VM denotes the verified meals.

EXAMPLE: VM = 2300 → LC = floor[(2300 + 500) / 1000] = floor[2.8] = 2 LC

**Table 3:** LC calculation examples

Verified Meals (VM)	Buffer Applied	Calculation	LCs
1700	+500	floor[2200/1000]	2
2300	+500	floor[2800/1000]	2

## 8. Reliability Weighting

The reliability weightages shall be as follows.

**Table 4:** Reliability weightage

Weight	Source Characteristics	Examples
1.0	Documents, direct observation	Receipts, photos, stove observation
0.7	Stakeholder interview/testimony	Manager/volunteer interview/testimony
0.3	Uncorroborated claims	Single statements

(Minimum requirement  $\geq 2.1$  from three independent sources)

## 9. Evidence Checklist

**Table 5:** Evidence Checklist

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### Meal Count checklist

VM triangulation (within  $\pm 5\%$  materiality):

- Meal service logs (1.0)
- 5+ stakeholder interviews (0.7 each)
- Capacity (kitchen throughput) (1.0)

Total Reliability: \_\_\_  $\geq 2.1$

VM = \_\_\_

### Fuel Type checklist

Category A ( $\geq 70\%$  clean fuel):

- Utility bills/receipts (1.0)
- Stove installation photos (1.0)
- Manager testimony (0.7)

Total Reliability: \_\_\_  $\geq 2.1$

Category: [A/B/C] \_\_\_

### Sourcing Type checklist

Category A ( $\geq 70\%$  district suppliers):

- Invoices with GPS validation (1.0)
- Supplier attestations (1.0)
- Delivery logs (0.7)

Total Reliability: \_\_\_  $\geq 2.1$

Category: [A/B/C] \_\_\_

### Meal Type checklist

Category A ( plant-based + dairy):

- Recipe logs/menus (1.0)
- Cook interviews (0.7)
- Beneficiary testimony (0.7)

Total Reliability: \_\_\_  $\geq 2.1$

Category: [A/B/C] \_\_\_

### Utensil Type checklist

Category A (reusable utensils):

- Inventory count (1.0)
- Washing area photos (1.0)
- Volunteer interviews (0.7)

Total Reliability: \_\_\_  $\geq 2.1$

Category: [A/B/C] \_\_\_

### Operation Type checklist

Option 1: Community Kitchen ( $\geq 70$  centralized cooking)

Option 2: Community Cafe ( $\geq$  surplus redistribution)

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## 10. Langar Seva Verifiers

### 10.1 Certification requirement

Langar Seva Verifiers (LSVs) shall complete a self-paced, 6-hour modular online training and certification to demonstrate their protocol competence. Any recognized degree in engineering, technology, agriculture, food, or hospitality is acceptable for attending the training program.

The Training curriculum shall be as follows:

Module 1 (1.0 h): Protocol principles, Operation Type, Meal Type, Utensil Type

Module 2 (1.5 h): Sourcing Type, Fuel Type, Category scoring

Module 3 (1.5 h): Verified Meal counting, LC calculation

Module 4 (1.0 h): Evidence evaluation, triangulation  $\geq 2.1$

Module 5 (1.0 h): Reporting, Quality Assurance, Seva Ethics, Impartiality

### 10.2 Certification assessment

Certification Exam: 2 hours. The certification process requires answering 20 questions. Pass threshold:  $\geq 85\%$  correct (17/20). The cases shall cover the protocol applications.

**Table 6:** Sample certification exam cases

Sr	Evidence	Answer
1	LPG receipt (1.0) + stove photo (1.0) + testimony (0.7)	Fuel A (3 pts)
2	7 score, 2.7 reliability	Gold tier
3	VM=2300	LC = 2

### 10.3 LSV assignment

The Registry shall assign LSVs, prioritizing home district candidates and leveraging their local-language proficiency and operational knowledge. Assignment excludes:

- family members or employment connections;
- financial relationships (including donations in the past 24 months).

### 10.4 Assignment priority algorithm

- Home district high-performers ( $\kappa \geq 0.85$ )
- Adjacent district (50–100 km) experienced LSVs

## 10.5 Conflict disclosure

The assigned LSV must submit a conflict-of-interest disclosure prior to visiting the CKCC. Any false disclosure results in the suspension of the certification.

## 10.6 Annual calibration

LSVs shall complete 15 benchmark cases annually, achieving a kappa of  $\geq 0.80$  for inter-rater reliability. Scores of 0.60–0.80 require re-training;  $< 0.60$  trigger suspension.

# 11. Verification Procedures

## 11.1 Verification cycle overview

Verification shall follow a structured four-stage cycle completed within 6–8 weeks of the application submission. The Registry shall manage the workflow by assigning independent Langar Seva Verifiers (LSVs) and tracking progress. The roles and responsibilities shall be as follows:

CKCC: Submit application and evidence package

Registry: Assign LSV, track timeline, publish certificate

LSV: Conduct verification, recommend tier

**Table 7:** Verification stages

Stage	Duration	Activities	Owner
Preparation	2–4 weeks	Eligibility, document collection	Reg/LSV
Assessment	1–3 days	Evidence triangulation, scoring	LSV
Reporting	5–7 days	Tier determination, QA review	LSV/Reg
Issuance	7–10 days	Certificate, LC allocation	Registry

## 11.2 Stage 1 : Preparation

11.2.1 CKCCs shall submit applications through the Registry, including the following: a) organizational documents; b) 3-month historical meal logs; c) procurement receipts sample; d) facility photographs; e) self-assessment of operational model.

11.2.2 The registry shall assess eligibility within five business days

11.2.3 The registry shall assign LSVs

11.2.4 CKCCs shall compile a document package within 10 business days, containing:

- a) complete 12-month meal logs (digital/paper);
- b) procurement receipts;
- c) recipe/menu records;
- d) utensil inventory lists;
- e) fuel purchase records/utility bills; f) supplier contracts.

11.2.5 The LSV shall conduct a pre-verification document review to confirm completeness and perform an initial materiality assessment. Gaps shall be communicated to the CKCC, allowing five business days for the supplementation.

### **11.3 Stage 2 : Assessment**

11.3.1 Document review

The LSV shall review the complete document package provided.

11.3.2 Site verification

The LSV shall conduct site visits. Photographic evidence (with geotags) shall capture kitchen equipment, utensil washing, cold storage, waste management, and fuel storage.

11.3.3 Stakeholder interviews

The LSV will conduct interviews to obtain testimonies.

### **11.4 Stage 3 : Reporting**

The LSV shall prepare a verification statement documenting evidence triangulation ( $\geq 2.1$  reliability), sustainability score calculation, tier recommendation, and improvement pathways.

### **11.5 Stage 4 : Issuance**

The Registry shall issue certificates within seven days post-QA approval.

### **11.6 Langar Credits (LC) validity**

LCs shall remain valid for the certificate duration of 12 months. Annual re-verification is required for renewals.

### **11.7 Conflicting evidence resolution**

Conflicting evidence shall be resolved through the following:

- a) highest cumulative reliability prevails;
- b) QA panel review of LSV-CKCC disputes.

## 12 Quality Assurance

### 12.1 Desk review

All verification statements shall undergo a desk review before certificate issuance. Clarification requests shall be resolved within 72 hours. First-pass approval target:  $\geq 95\%$ .

### 12.2 Field re-audits

Random field re-audits shall target 5% of verifications, stratified by the tier and region. Assigned re-audit LSVs shall conduct independent re-assessments by

- a) document re-sampling (20% of original records);
- b) facility re-inspection (fuel storage, utensils);
- c) five new interviews

Kappa agreement  $\geq 0.80$  target versus original verification. Discrepancies  $> 15\%$  shall trigger the LSV's probationary status.

### 12.3 Corrective actions

The following actions shall address the quality failures:

**Table 8:** Corrective action tiers

Tier	Discrepancy	Actions
1	$< 10\%$	Clarification request
2	10–20%	Statement revision + retraining
3	$> 20\%$	Certificate withholding, 30-day suspension

### 12.4 Continuous improvement

Stakeholder feedback shall inform quarterly guidance bulletins and annual protocol reviews. Amendments shall require the following:

- a) 12-month pilot data ( $\geq 100$  operations); b) 60-day public consultation.

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