Monitoring Plan for Sustainable Development Co-Benefits	
BASIC INFORMATION	
Title of the PoA	The Project of CCC program of Activities (PoA) for Distribution of Improved Cookstoves (ICS) in Developing South and Southeast Asia Countries (Myanmar)
Coordinating/managing entity	Climate Change Center
Host Parties	The Republic of the Union of Myanmar
Applied methodologies and standardized baselines	Methodology : AMS-II.G Energy efficiency measures in thermal applications of non-renewable biomass, version 09
Sectoral scopes	Sectoral Scope : 03
PoA and CPAs reference no.	PoA: 10471 CPAs: 10471-P1-0001-CP1, 10471-P1-0002-CP1, 10471-P1-0003-CP1, 10471-P1-0004-CP1, 10471-P1-0005-CP1, 10471-P1-0006-CP1, 10471-P1-0007-CP1, 10471-P1-0008-CP1, 10471-P1-0009-CP1, 10471-P1-0010-CP1, 10471-P1-0011-CP1, 10471-P1-0012-CP1, 10471-P1-0013-CP1, 10471-P1-0014-CP1, 10471-P1-0015-CP1, 10471-P1-0016-CP1, 10471-P1-0017-CP1, 10471-P1-0018-CP1, 10471-P1-0019-CP1, 10471-P1-0020-CP1, 10471-P1-0021-CP1, 10471-P1-0022-CP1, 10471-P1-0023-CP1, 10471-P1-0024-CP1, 10471-P1-0025-CP1, 10471-P1-0026-CP1, 10471-P1-0027-CP1, 10471-P1-0028-CP1, 10471-P1-0029-CP1, 10471-P1-0030-CP1, 10471-P1-0031-CP1, 10471-P1-0032-CP1, 10471-P1-0033-CP1, 10471-P1-0034-CP1, 10471-P1-0035-CP1, 10471-P1-0036-CP1, 10471-P1-0037-CP1, 10471-P1-0038-CP1, 10471-P1-0039-CP1, 10471-P1-0040-CP1, 10471-P1-0041-CP1, 10471-P1-0042-CP1, 10471-P1-0043-CP1, 10471-P1-0044-CP1, 10471-P1-0045-CP1, 10471-P1-0046-CP1, 10471-P1-0047-CP1, 10471-P1-0048-CP1, 10471-P1-0049-CP1, 10471-P1-0050-CP1, 10471-P1-0051-CP1, 10471-P1-0052-CP1, 10471-P1-0053-CP1, 10471-P1-0054-CP1

SECTION A: Introduction

A.1 Purpose and Scope

This document outlines the monitoring plan for sustainable development co-benefits (SDC) under PoA 10471 and its associated CPAs. It establishes a systematic approach to tracking, reporting, and verifying the environmental, social, and economic benefits in alignment with UNFCCC requirements and SD-TOOL01: Voluntary tool for describing sustainable development co-benefits of CDM project activities or PoA.

A.2 Objectives

The objectives of this monitoring plan are to:

1. Ensure accurate and consistent tracking of SDC indicators.
2. Facilitate compliance with international reporting standards, including alignment with SDG framework indicators.
3. Promote transparency and accountability in project implementation.
4. Support evidence-based decision-making for sustainable development initiatives.

SECTION B: Monitoring Approach

B.1 Data Collection and Sampling

- **Data Collection Methods:**
    - Household surveys, direct field measurements, and project activity records will serve as the primary data sources. These methods are selected to ensure comprehensive data coverage across environmental, social, and economic dimensions.
- Sampling Design:
    - A statistically valid sample size will be utilized for surveys and measurements to ensure representativeness across CPA regions. Sampling will account for demographic diversity, geographic distribution, and socioeconomic variations to capture the full spectrum of project impacts.

- **Justification for Sampling Methods:**
    - The sampling approach ensures cost-effectiveness while maintaining statistical rigor. Stratified random sampling is employed to address variations in population characteristics, ensuring that all relevant subgroups are adequately represented in the data. This method minimizes bias and enhances the credibility of monitoring results by aligning with international best practices for sustainable development projects.

B.2 Monitoring Protocols

1. Establish baseline data using pre-defined project parameters.
2. Conduct periodic field measurements and surveys.
3. Record, analyze, and verify results using standardized tools.
4. Ensure all data is archived and backed up securely.

B.3 Sampling Justifications

- Sampling is based on demographic, geographic, and socioeconomic factors to ensure representation.
- Sample sizes are determined using statistical methods that align with international monitoring standards.

SECTION C: Monitoring Indicators

C.1 Environmental Indicators

Indicator	GHG emissions reduced per year
Data unit	tCO_2eq/year
Description	Refers to total amount of greenhouse gases avoided or sequestered during the reporting period.
Source of data	Project activity records
Monitoring frequency	Annual
Measurement methods and procedures	Calculation based on PoA-DD
Additional comment	SDGs 13.2.2 Total greenhouse gas emissions per year

Indicator	Number of households that observed reduction in PM2.5 & carbon monoxide (CO) concentration reductions
Data unit	Number
Description	Refers to the PM2.5 and carbon monoxide (CO) concentrations in the households that are considered key marker pollutants for exposure to HAP. Baseline and project scenarios will be monitored to assess improvements.
Source of data	Household air quality surveys supplemented by secondary data from public health or environmental agencies.
Monitoring frequency	At least twice a year (to capture seasonal variations)
Measurement methods and procedures	**1. Baseline Scenario:** ・Collect baseline data from representative households before cookstove distribution. ・Measure PM2.5 and CO concentrations using calibrated air quality monitors during various times of the day (e.g., before and after cooking) to capture pollution levels caused by cooking. ・Employ stratified random sampling to account for geographic, income, and household type variations. ・Conduct at least two data collection cycles annually to reflect seasonal variations. **2. Project Scenario:** ・Repeat the same measurements after the cookstove distribution to assess improvements. ・Use stratified random sampling consistent with baseline measurements. ・Collect data during identical periods and under similar conditions as the baseline for accurate comparisons. **3. Supplementary Methods** **- Surveys and household studies:** ・Collect data on household fuel usage patterns, ventilation conditions, and cooking frequency. ・Evaluate cooking environments (e.g., kitchen structure, presence of windows) and behaviors to understand correlations with air quality. **- Existing literature and research:** ・Use existing studies or reports conducted in the region to complement baseline data. ・Reference WHO air quality guidelines and local environmental agency reports to enhance the robustness of the baseline scenario.
Additional comment	SDGs 3.9.1 Mortality rate attributed to household and ambient air pollution

C.2 Social Indicators

Indicator	Proportion of time spent on unpaid domestic and care work, by sex, age and location
Data unit	%
Description	This indicator is defined as the proportion of time spent in a day on unpaid domestic and care work by men and women. Unpaid domestic and care work refers to activities related to the provision of services for own final use by household members, or by family members living in other households. Unpaid domestic and care work involving firewood collection includes activities such as searching for and gathering firewood, cutting and bundling firewood, transporting it to the household, and storing it for future use.

	These activities contribute to the provision of essential energy sources for cooking, heating, and other household needs, benefiting household and family members.
Source of data	Project survey
Monitoring frequency	Annual
Measurement methods and procedures	Survey in representative population
Additional comment	SDGs 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location

Indicator	Total number of jobs
Data unit	Total number of employees
Description	Refers to total jobs generated as a result of the project.
Source of data	Social Security Records
Monitoring frequency	Annual
Measurement methods and procedures	Verify employment data through field reports and payroll reviews
Additional comment	SDGs 8.5.1 Average hourly earnings of employees, by sex, age, occupation and persons with disabilities

C.3 Economic Indicators

Indicator	Proportion of population with primary reliance on clean fuels and technology
Data unit	%
Description	This indicator is defined as the number of people using clean technologies for domestic cooking, divided by total population reporting any cooking.
Source of data	Distribution records
Monitoring frequency	Annual
Measurement methods and procedures	Number of persons having access to clean cookstove in the project activity compared to the baseline scenario
Additional comment	SDGs 7.1.2 Proportion of population with primary reliance on clean fuels and technology

Indicator	Total non-renewable wood fuel saved
Data unit	tonnes/yr
Description	Refers to the total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology
Source of data	Project surveys
Monitoring frequency	Annual
Measurement methods and procedures	The amount of wood saved compared to the baseline scenario will be obtained through project surveys. Calculation will be done with the number of stoves and the fNRB value.
Additional comment	SDGs 15.1.1 Forest area as a proportion of total land area

SECTION F: Conclusion

This monitoring plan provides a structured approach to evaluate and report on the sustainable development co-benefits of PoA 10471 and its CPAs. By aligning with international standards, the plan not only ensures compliance but also enhances the project's capacity to contribute to broader sustainable development goals (SDGs). These include improved environmental outcomes, such as GHG emissions reductions and resource conservation, as well as social and economic benefits like job creation and enhanced quality of life for beneficiaries. By systematically tracking these indicators, the project supports evidence-based decision-making and fosters accountability, transparency, and continuous improvement in achieving its sustainability objectives.