



Piloting a Standardized Crediting Framework for Scaling Up Energy Access Programs

Program Protocol

Rwanda Pilot

Report 15/11/2018



Table of contents

1. Introduction	1
2. Program governance and institutions	1
2.1 Governing Board	2
2.2 Technical Committee	3
2.3 Administrator	4
3. Scope and eligibility	5
3.1 Sectors, technologies and program types covered	5
3.2 Geographic scope	5
3.3 Greenhouse gases covered	5
3.4 Program proponents	5
3.5 Program start date	6
4. Program cycle	6
4.1 Program cycle overview	6
4.2 Listing process	7
4.3 Monitoring requirements and process	8
4.4 Verification process	9
4.5 Certification process	9
4.6 Crediting period	10
5. Methodologies	10
5.1 Baseline and additionality principles	10
5.2 Methodologies and tools included in initial Program Protocol	
5.3 Process for approval of additional methodologies	11
6. Sustainable development	11
7. Stakeholder participation and engagement	11
8. Accreditation	11
9. SCF Registry and public access to information	12
10. Fees	12
11. Templates and guidance documents	12
12. Liability and redress	
13. Support to actors	13
14. Version history	13

Version	Date
1.0	15/11/2018

1. Introduction

This document outlines the rules for a pilot program in Rwanda for results-based financing for climate change mitigation. This pilot is based on the Standardized Crediting Framework (SCF) for energy access¹, which is a streamlined approach that combines many of the reforms previously proposed by the World Bank for the Clean Development Mechanism (CDM) under the Kyoto Protocol. While the SCF Pilot cannot guarantee that the activities undertaken will be eligible for crediting under the Paris Agreement, the results of the pilot will inform not only future climate change mitigation cooperation between Rwanda and other countries but also the development of rules of the new carbon market mechanisms.

The SCF Pilot will cover only Rwanda and will initially limit eligibility to high-efficiency biomass-fired (i.e. fuelwood and charcoal) cookstoves used to replace low-efficiency biomass-fired cookstoves. Programs that seek to replace biomass with a renewable fuel source in combination with efficient cookstoves may also account for the emission reductions achieved from the use of renewable biomass for cooking (e.g. pellets or briquettes). The SCF Pilot will initially include only one program – the improved cookstove program undertaken by Inyenyeri. The Program Protocol may, however, be revised by the relevant authorities to allow for other programs and to include other technology areas in the future. In fact, the Program Protocol has been designed to allow for future flexibility to accommodate other carbon finance or results-based finance programs.

The SCF Program Protocol would be approved and launched by the Governing Board, as described in the next section.

Most sections of the Program Protocol include two parts:

- the actual rules for the SCF Pilot, which are in standard black text;
- an explanation of the rationale for the rules, where necessary, or other comments on how they were developed, in *indented black italic text*.

2. Program governance and institutions

The SCF Pilot has an efficient and lean governance structure that builds on the existing climate change institutional setup in Rwanda. This will test the appropriateness and effectiveness of the structure and relevant governance functions during the SCF Pilot and can potentially inform the establishment of a more permanent institutional setup in the future, should the country decide to adopt such a framework as one of the means of accessing climate finance for energy access programs. In addition, the SCF Pilot governance applies lessons learned from different carbon market standards, distinguishing more clearly policy and oversight-related functions from executive and administrative ones. The institutional arrangement for piloting the SCF in Rwanda will be as shown in Figure 1. The membership of these bodies is explained in the following sections.

¹ https://www.ci-dev.org/sites/cidev/files/doucments/SCF.pdf.

Figure 1. Governance structure of the SCF Pilot

Governing Board

- Approves recommendations from technical committee (e.g. list of other suitable technologies)
- · Certifies emission reductions,
- Decides on international transfers of mitigation outcomes
- Decides on future development of SCF

Technical Committee

- Evaluates role of SCF for NDC implementation
- Recommends approval of SCF program documents and templates (methodologies, monitoring, verification, eligible auditors, etc.)
- Recommends rules/guidelines for application of SCF

Administrator

- Lists programs and undertakes completeness checks (during listing and certification)
- Approves and lists eligible auditors
- · Maintains a registry of emission reduction certificates
- Convenes meetings of the Governing Board

In the future, a more permanent institutional setup for the SCF may incorporate additional structures, including, for example, a link to an independent ombudsman to address stakeholders' concerns, and an administrative review process where technical decisions may be reviewed.

2.1 Governing Board

The Governing Board provides the overall authority and strategic direction for the SCF Pilot.

Composition: During the SCF Pilot, in order to establish a board that is lean and efficient, builds on existing structures in the country, and supports energy access programs, the Governing Board will be chaired by Rwanda Environmental Management Agency (REMA) and comprise other members including:

- Ministry of Environment (MoE), Director General for Climate Change (chair);
- REMA, Director General (co-chair);
- Ministry of Infrastructure (MININFRA), Division Manager, Energy;
- Rwanda Green Fund (FONERWA), Fund Manager;
- Rwanda Energy Group, Chief Operations Manager; and
- International Union for Conservation of Nature (IUCN), Regional Country Coordinator.

These bodies can effectively carry out the relevant functions of a Governing Board without necessarily altering their current mandates.

Main responsibilities: The Governing Board has the following responsibilities:

- · Announces the SCF Pilot.
- Provides strategic direction to the SCF and recommends future changes to representation of the relevant Ministries in the Governing Board.

- Approves the SCF Program Protocol and related templates and guidance (e.g. methodologies, monitoring, verification, etc.), based on the recommendation of the Technical Committee.
- Certifies the emission reductions achieved based on the verification reports approved by the Administrator with the support of eligible auditors (see section 8).
- Supervises and guides the Administrator.
- Requests the Technical Committee to provide advice and develop technical inputs (tools, templates, methodologies, guidance) as appropriate.
- Co-ordinates and interacts with international financiers and donors.

Decision-making process: Governing Board decisions will be made in joint meetings of the members. After the inaugural meeting to approve the Program Protocol and other related rules, meetings would be convened by the Administrator on an as-needed basis, including to review the lessons learned from the SCF Pilot.

Additional responsibilities related to tasks during program cycle (see list of processes in section 4):

- In the case of negative verification opinion where the Program Proponent appeals, the Governing Board would review the submission from the Program Proponent and the Verifier and request additional clarifications and evidence as necessary. The Governing Board may also choose to enlist ad-hoc technical support to evaluate an appeal.
- If the Governing Board supports the negative verification opinion, then the Program is rejected and there are no verified emission reductions.
- If the Governing Board disagrees with the negative verification opinion, then it may certify the emission reductions.

After the pilot phase, the Government of Rwanda may opt to formally adopt a more permanent setup for the Governing Board based on lessons learned and the need for having such structures for mainstreaming the SCF concept for accessing climate finance, if this arrangement proves successful. Accordingly, it could establish new mandates and functions as deemed appropriate to the operation of the SCF beyond the pilot. Adjustments to mandates and functions could also reflect an expansion in scope of the SCF and/or international developments on Article 6 of the Paris Agreement.

2.2 Technical Committee

The Technical Committee for the SCF Pilot provides technical inputs and recommendations to the Governing Board.

Composition: The Technical Committee members will be drawn from the CDM Technical Committee, Rwanda's existing multi-stakeholder committee reviewing CDM projects, and from elsewhere. This group can continue functioning per the rules of procedure of the CDM Technical Committee.

Main responsibilities: The Technical Committee has these key responsibilities:

 Develops², reviews and recommends approval of the SCF Program Protocol, methodologies and templates, as per guidance from the Governing Body.

² During the pilot phase, these documents will be prepared by consultants appointed by the World Bank.

- Provides recommendations for specific rules and guidelines to be adopted by the Governing Board to make the SCF Pilot successful.
- Contributes to the review of lessons learned during the SCF Pilot.

Decision-making process: The Technical Committee would serve as an advisory body rather than a decision-making one and would meet on an ad-hoc basis as necessary or as suggested by the Governing Board.

Additional tasks during program cycle (see list of processes in section 4):

 While the Technical Committee would review all the documents for the SCF Pilot, it would not have a direct role in the Program Cycle, except when asked for specific inputs on an ad-hoc basis by the Governing Board

After the pilot phase, the Government of Rwanda may opt to establish a new group to house the Technical Committee, and/or expand the roles of the Technical Committee.

2.3 Administrator

The Administrator carries out most of the day-to-day executive and administrative functions of the SCF.

Composition: Given that REMA already acts as the focal point in the Rwanda CDM Designated National Authority (DNA), the Climate Change and International Obligations Department (CCIOD) of REMA serves as the Administrator for the SCF.

Main responsibilities:

- Conducts completeness checks on submitted listing³ templates.
- Lists programs in the SCF that pass the completeness check.
- Maintains a registry of listed programs and emission reductions achieved.
- Identifies eligible auditors to verify emission reductions from listed programs, based on guidance in the Program Protocol.
- Convenes meetings of the Governing Board and Technical Committee.

Decision-making process: REMA would lead the Administrator and draw upon other staff as required. The Administrator would operate on a continuous basis.

Tasks during program cycle (see list of processes in section 4):

- The Administrator will conduct a Completeness Check during listing and notify the Program Proponent if changes are required.
- Once the Administrator judges that Listing document template is complete, the Administrator will enter the data for the listed program into the registry.
- The Administrator will inform the Program Proponent of the list of accredited verifiers.
- In the case of a positive verification opinion, the Administrator will check that the Verification Report follows the SCF Pilot rules.
- The Administrator will then forward the Verification Report to the Governing Board, which will certify the emission reductions.
- The Administrator will record the emission reductions achieved in the registry (see section 9) and notify the national authorities charged with tracking NDC implementation of the emissions reductions certified.

³ Listing here means recognition of the eligible programs as part of the SCF based on fulfilment of certain requirements as specified in the template.

After the pilot phase, and as institutional capacities and resources increase, the Governing Board may choose to widen the scope of the SCF Administrator roles, such as guiding and approving the work of the Technical Committee.

3. Scope and eligibility

3.1 Sectors, technologies and program types covered

This SCF Pilot focuses on high efficiency biomass cookstove technologies. Emission reductions are claimed from the displacement of non-renewable biomass (i.e., fuelwood and charcoal) used for cooking.

The list of technologies and program types covered in the SCF Pilot includes the following:

- Single or multi-pot portable or in-situ improved biomass cookstoves with a thermal efficiency of at least 30%.
- The above, used in combination with renewable solid fuel sources (e.g. briquettes, pellets, woodchips)

The Governing Board may choose, at its discretion, to include other technologies in the SCF over time. However, the approach used to calculate emission reductions will need to be adjusted to fit the technology in question.

The starting point for the pilot is the suite of technologies used by Inyenyeri and other improved cookstove program developers in Rwanda. More program types could be added later, if additional methodologies are also approved by the Governing Board. The overall structure of the SCF Pilot has been designed to accommodate this future expansion, or even inclusion of other similar programs, after the pilot phase.

3.2 Geographic scope

The geographic scope of activities under the SCF Pilot is the entire country of Rwanda.

This SCF pilot is specific to Rwanda and improved cookstoves, and so only covers activities in Rwanda. The methodology, during the pilot, supports only the technologies defined above.

3.3 Greenhouse gases covered

Emission reductions under the SCF Pilot will cover only carbon dioxide (CO₂). This may be expanded if additional technologies, and hence additional GHGs like methane (CH₄), are added after the initial pilot.

The technologies currently included in the SCF Pilot for Rwanda primarily reduce CO₂ emissions. Emissions of methane and nitrous oxide from combustion of biomass are negligible.

3.4 Program proponents

During the SCF Pilot, the only program proponent will be Inyenyeri. Future eligibility requirements for allowing more program proponents will be agreed by the Governing Board.

This section is a "placeholder", in case Rwanda wants to move beyond just the pilot program. The Governing Board will need to specify any qualifications or criteria for participation for an extension to the pilot.

3.5 Program start date

The program start date is the start of actual implementation of the technologies and activities included in the scope of the program, supported by relevant documentation (e.g. installation reports, commissioning reports, operational reports). If the program is already under implementation, the Program Proponent may include activities in the scope of the program that started *up to one year prior to the listing date*. In this case, the start date may be up to one year prior to the listing date. If no implementation has begun at the time of listing, the start date will be after the listing date and should reflect the Program Proponent's best estimate of when implementation will start.

The purpose of allowing an earlier start date is to ensure that delays in the SCF Pilot process do not jeopardize the eligibility of programs or their ability to generate emission reductions. This has been a common problem in the CDM, with long delays leading to problems and limiting the generation of credits. One year is a reasonable length (i.e. some voluntary carbon market standards allow for two years), given that the SCF process is excepted to be much faster than the CDM process.

4. Program cycle

4.1 Program cycle overview

The program cycle includes the following steps:

- Preparation: The Program Proponent develops a program concept and presents the program by filling in the Listing Document Template using the Listing Document Guidance.
- Completeness check and listing: The Administrator, using the Completeness Check
 Template and Completeness Check Guidance, conducts a completeness check on the
 contents of the Listing Document Template. If the template is incomplete, the
 Administrator will request changes from the Program Proponent. If the template is
 complete and meets all requirements, the Administrator will inform the Program
 Proponent using the Listing Notification Template and will inform the Governing Board of
 the acceptance of the program, and it will be listed in the official SCF Pilot registry.
- Monitoring: The Program Proponent monitors the performance of the program and uses
 the monitoring data and the Monitoring Calculation Tool to complete the Monitoring
 Report Template referring to the Monitoring Report Guidance. At the end of the
 monitoring period, when the Monitoring Report is complete, the Program Proponent
 requests the Administrator to identify a list of Verifiers. The Program Proponent selects a
 verifier from this list.
- Verification: The Verifier verifies the monitoring data presented in the Monitoring report template using the Verification Report Template and Verification Guidance.⁴

⁴ During the pilot, the costs of verification will be covered by the World Bank.

Certification: On receipt of the Verifier's positive verification report and recommendation
of the Administrator, the SCF Governing Board will certify the emission reductions. Note
that this step is not related to the CDM Executive Board in any way, although the same
term is used in the CDM for the final approval of the verified emission reductions.

Note that the SCF Pilot will not issue any compliance grade and transferable units as in the CDM. The objective is to simulate all activities leading up to certification of emission reductions to compare with processes under CDM. The pilot will consider how frameworks like these can support countries accessing climate finance more effectively with lower transaction costs while accommodating country circumstances and with more ownership of the process. If the framework is recognized as an appropriate way to deliver tradable units internationally, the Governing Board may choose to streamline and revise the SCF as necessary so that the process can deliver transferable units.

Figure 2 presents the full program cycle including the steps explained above. More detailed process diagrams for each step are shown in the following sub-sections. Note that, unlike in the CDM PoA process, there is no "inclusion" step for adding more units or households to the program. The size of the program is, instead, determined each year through the monitoring process. The figure also indicates which entity is responsible for each step of the process.

Although the Technical Committee, as described above, is involved in developing and approving the rules, methodologies, and documents for the SCF Pilot, this group is not directly involved in the Program Cycle. This is part of the streamlined process of the SCF, where the technical work and consultation on methodological issues is all done up front when establishing the pilot, so that the program cycle can be more efficient and have lower transaction costs.

Program Program Governing Administrator Verifier proponent proponent Actor Board Step Program Completeness Monitoring Verification Certification Check/Listing Preparation Listing Document Template. **Tools** Monitoring Report Template, Verification Completeness Check Template, Report Template Methodology

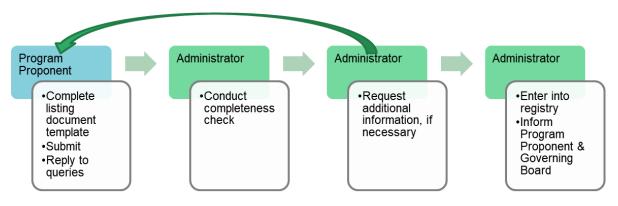
Figure 2. Overview of program cycle, actors and tools

4.2 Listing process

The process for listing is shown in Figure 3 and the steps are explained below.

- The Program Proponent should use the current version of the Listing Document Template and related Listing Document Guidance, covering general program information, eligibility, emission reduction and monitoring, stakeholder consultation and environmental impacts. The Program Proponent should submit the completed Listing Document to the Administrator electronically.
- The Administrator will conduct a Completeness Check, referring to the Completeness Check Guidance, and notify the Program Proponent if changes are required.
- The Program Proponent will make any required changes and send the revised Listing Document to the Administrator.
- Once the Administrator judges that Listing Document is complete, the Administrator will
 notify the Program Proponent and enter the data for the listed program into the registry⁵.
 The listing date will be the date that the Program Proponent sent the final version of the
 Listing Document to the Administrator.

Figure 3. Listing process



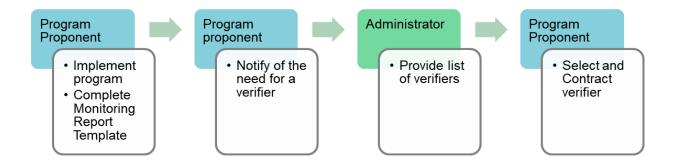
4.3 Monitoring requirements and process

The process for monitoring is shown in Figure 4 and the steps are explained below.

- The Program Proponent will implement the program.
- The Program Proponent should use the current version of the Monitoring Calculation Tool and Monitoring Report Template, as well as related Monitoring Report Guidance to present the monitoring data. A standard monitoring period after the pilot would be twelve months, as for most other crediting standards. However, given that the crediting period can start before the listing date (see section 4.6), six months of monitoring after the listing date would be sufficient during the pilot to test out the templates and tools.
- Two months prior to the end of the monitoring period the Program Proponent will request the Administrator to provide a list of verifiers.
- The Program Proponent will then select and contract a verifier.

⁵ Relevant data for the registry at the time of listing would include: program proponent, program start date, program crediting period start date, listing date, technologies included and estimated annual emission reductions.

Figure 4. Monitoring process

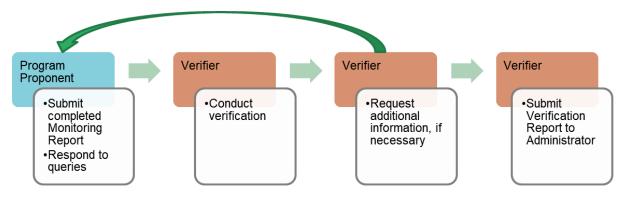


4.4 Verification process

The verification process is shown in Figure 5 and the steps are explained below.

- The Program Proponent will submit the completed Monitoring Calculation Tool and Monitoring Report, along with all relevant supporting documentation, to the Verifier.
- The Verifier will conduct the verification based on the current version of the Verification Report Template and related Verification Guidance.
- The Verifier will submit a Verification Report to the Administrator, including an unqualified verification opinion. The Verifier will clearly justify a positive or negative verification opinion.

Figure 5. Verification process

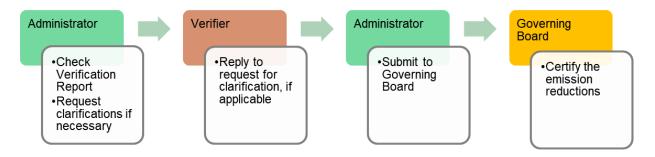


4.5 Certification process

- In the case of a positive verification opinion, the Administrator will check that the Verification Report follows the SCF Pilot rules.
- The Administrator will then forward the Verification Report to the Governing Board, which will certify the emission reductions.
- In the case of negative verification opinion, the Program Proponent may appeal to the Governing Board. In this case, the Governing Board would review the submission from the Program Proponent and the Verifier and request additional clarifications and evidence as necessary. The Governing Board may also choose to enlist ad-hoc technical support to evaluate an appeal.
- If the Governing Board supports the negative verification opinion, then the Program is rejected and no emission reductions are certified by the Board.

If the Governing Board disagrees with the negative verification opinion, then it may certify
the emission reductions.

Figure 6. Certification process



4.6 Crediting period

- The start of the first crediting period is the Program Start Date or Listing Date, whichever is earlier.
- The crediting period during the pilot should align with the crediting period for the Inyenyeri program under the Ci-Dev agreement (i.e. ending by 30 June 2025).
- Subsequent crediting periods should align with the timeline for revising NDC commitments under the Paris Agreement.
- The Governing Board will agree on a process for crediting period renewal, including the impact on the baseline and program emissions calculation parameters.

The crediting period should align with the timeline of NDC revisions, because updates to the NDC commitments may affect baselines for crediting.

5. Methodologies

5.1 Baseline and additionality principles

Additionality for improved cookstoves is addressed using a "positive list" approach. The following technologies are considered automatically additional, based on rules developed under the CDM.

- Improved biomass-burning cookstoves with a thermal efficiency of at least 30%.
- The stoves may be portable, in-situ or multi-pot stove and must be for domestic use.

5.2 Methodologies and tools included in initial Program Protocol

The following methodology(ies) is(are) included in this initial version of the Program Protocol:

Improved cookstoves in Rwanda (version 1.0).

Methodologies, and the related templates and guidance documents, may be updated periodically by the Technical Committee and Governing Board.

Additional methodologies approved later would be added to this list.

5.3 Process for approval of additional methodologies

The Governing Board may, after the initial pilot, agree on a process for approving additional methodologies, which would be developed by the Technical Committee.

A new methodology development process will only be needed after the conclusion of the pilot, so the Governing Board may ask the Technical Committee to develop it during the pilot phase, if there is interest in more methodologies and technologies. This could include simply accepting methodologies already approved under other standards (e.g. CDM, VCS, Gold Standard) or could also include development of new methodologies specific to the Rwanda SCF.

6. Sustainable development

Programs in the SCF Pilot should also include sustainable development co-benefits. Programs with strong sustainable development benefits are more readily embraced by the stakeholders and have a good chance for successful implementation. During the Pilot, the program should highlight potential benefits and indicators that could be used to measure them, but monitoring will not be required. They will use the same sustainable development criteria and process required by the Rwandan government for CDM programs requesting Letters of Approval. They may also, in addition, choose to use the voluntary "Sustainable Development Co-Benefits Tool" provide by the CDM. Examples of direct socio-economic effects include employment creation, positive impacts on disposable income for low income households, foreign exchange effects, technology transfer and diffusion. Local environmental benefits could include reduction in local air, water and other pollution. The programs may also highlight the contribution to the Sustainable Energy for All goals in Rwanda.

7. Stakeholder participation and engagement

For the pilot, programs that already completed stakeholder consultation under the CDM are not required to conduct an additional consultation process. Otherwise, stakeholder consultations should follow relevant national guidelines (i.e. consideration of inputs from various national stakeholder, but not a global stakeholder consultation as in the CDM).

Note that the Inyenyeri program has already completed the local and global stakeholder consultation process under the CDM.

8. Accreditation

During the SCF Pilot, any one of the following entities may serve as a verifier:

 Companies accredited as Designated Operational Entities (DOEs) by the CDM Executive Board⁷ under "Sectoral Scope 3. Energy Demand."

⁶ http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20140401114548484/reg_tool01.doc.

⁷ For the full list of DOEs, see http://cdm.unfccc.int/DOE/list/index.html.

- Companies accredited as Accredited Independent Entities (AIEs) under Joint Implementation Supervisory Committee⁸ under "Sectoral Scope 3. Energy Demand."
- Companies accredited as Validation/Verification Bodies by the Verified Carbon Standard⁹ under "Sectoral scope 3. Energy Demand."

While the SCF Governing Board or other Rwandan crediting programs may wish to enlarge this list to include more local certification organizations in the future, the time constraints for the SCF Pilot do not allow for new accreditation processes specifically for the SCF. Local entities could, however, be involved in verification as observers and participate in capacity-building workshops run by the verifiers.

9. SCF Registry and public access to information

The SCF Pilot will provide publicly available information on the status of any listed SCF Program. During the Pilot, however, this will be simple because only one program will be listed. ¹⁰ Upon successful listing of an SCF Program, the Administrator will publish the approved Listing Document on the website of the Rwanda CDM DNA and/or the SCF Administrator. At the completion of verification, the Administrator will also publish the completed Monitoring Report and Verification Report, as well as the date when the emission reductions were certified by the Governing Board.

If the pilot phase is extended or expanded, an online database of programs may be needed, but not with only one program. Note that this initial registry is different from a registry that tracks tradeable units – the SCF Pilot will only make relevant document and decisions available to the public.

10. Fees

No fees will be levied for listing of programs or certification of emission reductions for the pilot activity.

The SCF Pilot is a simulation that will not generate additional revenue for the Program Proponent. However, in the future and if the SCF evolves in a mechanism of issuing tradable units, the Governing Board may choose to levy fees during listing and/or certification to support the costs of administering the SCF.

11. Templates and guidance documents

⁸ For the full list of AIEs, see http://ji.unfccc.int/AIEs/List.html.

⁹ For the full list of VVBs, see http://verra.org/project/vcs-program/validation-verification/.

¹⁰ Unlike the CDM process for Programmes of Activities, where new groups of sub-projects or households need to be added in "Component Project Activity (CPA)", under the SCF the program includes all the activities implemented so far in a given year. In the improved cookstove example, this means that all of the operational stoves that have been installed as of a given year (since the Program Start Date) are part of the program.

The section lists the templates and guidance documents that are used in the SCF Pilot. If any of this documentation is revised, the most current version will appear on the SCF Rwanda website or other designated website.

Templates and guidance documents:

- Listing Document Template for improved cookstoves.
- Completeness Check Template for improved cookstoves.
- Listing Notification Template for improved cookstoves.
- Monitoring Calculation Tool for improved cookstoves.
- Monitoring Report Template for improved cookstoves.
- Verification Report Template for improved cookstoves.
- Verification Guidance for improved cookstoves.

The website will also include the current version of approved methodology(ies). For the Pilot, this will be the methodology "Improved cookstoves for Rwanda".

12. Liability and redress

During the pilot, the SCF will not actually issue credits, so there is no liability for future reversals of emission reductions. Where social and environmental safeguards are violated, this should be addressed per national law.

The Governing Board may choose to review these provisions after the initial pilot.

13. Support to actors

During the pilot, program proponents will receive support from the consulting team to complete the Listing Document Template and Monitoring Report Template. The Administrator will also receive support with the completeness check and listing process. The consulting team will assist the Administrator in preparing the agenda and documentation for the Technical Committee and Governing Board meetings.

14. Version history

Version	Date	Contents revised
1.0	15/11/2018	Initial adoption