SD-TOOL01

Tool

Voluntary tool for describing sustainable development co-benefits of CDM project activities or programmes of activities (PoA)

Version 01.1

United Nations
Framework Convention on
Climate Change

1. Introduction

1. The CDM sustainable development co-benefits description tool (SD tool) is made available to CDM project participants and coordinating / managing entities to assist them to describe sustainable development co-benefits of a CDM project activity or programme of activities (PoA).

2. The use of the SD tool is entirely voluntary. It has been developed in response to paragraph 5 of decision 8/CMP.7, in which the CMP requested the CDM Executive Board to "develop appropriate voluntary measures to highlight the co-benefits brought about by CDM project activities and PoAs, while maintaining the prerogative of the Parties to define their sustainable development criteria".

3. The SD tool is maintained by the UNFCCC secretariat as mandated by the CDM Executive Board (EB 70, paragraph 82).The SD tool can be used at any time in the life of a CDM activity, including to update the description should co-benefits change.

4. The SD tool can be used for a single activity only. The SD tool produces a sustainable development co-benefits (SDC) description report. This report and any previous SDC description reports will be made available on the CDM website for the activity chosen.

5. Any feedback or questions can be emailed to *sdtool@unfccc.int*.

INSTRUCTION
Please complete the sections one to three below. All the questions in bold font are compulsory (unless otherwise indicated in the document). Section 1: select project activity / PoA Section 2: sustainable development co-benefits Environment - Air Environment - Land Environment - Water Environment - Natural resources Social - Jobs Social – Health & safety Social - Education Social - Welfare Economic - Growth Economic - Energy Economic – Technology transfer Economic – Balance of payments Further information Section 3: third party assessment and contact information Third party assessment Contact information Please send the completed document to the UNFCCC secretariat requesting a corresponding sustainable development co-benefits description report to be published on the CDM website via either: a) EMAIL TO *SDTOOL@UNFCCC.INT* - with subject "request to publish" and document attached with file name "SD_Tool01_<Your CDM Reference number>.doc" (e.g. SD_Tool01_0001.doc); or b) MAIL TO: CDM – SD Tool UNFCCC secretariat P.O. Box 260124 D-53153 Bonn Germany

SECTION 1: SELECT PROJECT ACTIVITY / POA	
Full Title	The Project of CCC program of Activities (PoA) for Distribution of Improved Cookstoves (ICS) in Developing South and Southeast Asia Countries (Myanmar)
Type of activity(ies)	Programme of activities
Project activity/PoA reference no. *(if available)*	10471
*If a Project activity/PoA reference number was provided above, please go to **Section 2** below.* *If Project activity/PoA reference number is not yet issued, please answer questions below.*	
Project cycle stage *(e.g. prior consideration, validation)*	
Sectoral scope(s)	
Host Party(ies)	
Geographical location– latitude	

Geographical location - longitude	
SECTION 2: SUSTAINABLE DEVELOPMENT CO-BENEFITS	
Environment - Air	
Does the activity improve air quality in the area?	Yes (and I wish to specify)
The activity improves air quality by reducing air pollutants such as SOx (sulphur oxides), NOx (nitrous oxides), Suspended Particulate Matter (SPM) emissions, Non Methane Volatile Organic Compounds (NMVOCs), fly ash, noise, odour or dust. Reductions in greenhouse gasses are not included, as this defines all CDM projects. If the activity avoids indoor smoke, this can be declared under "Social - health and safety" section.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Environment - Land** section.*	
Specific indicators How and to what extent does the activity improve air quality in the area?	
Reducing level/frequency/time of SOx (sulphur oxides) emissions? *Please specify*	Slightly
The E-FREE cookstoves achieve better combustion efficiency, which minimizes the production of sulfur oxides (SOx) typically released during the burning of non-renewable biomass. Although sulfur content in biomass is generally low, improved combustion reduces the release of trace amounts of SOx.	
Reducing level/frequency/time of NOx (nitrous oxides) emissions? *Please specify*	Slightly
Improved combustion efficiency ensures that more complete burning occurs, reducing the conditions that lead to nitrogen oxide (NOx) formation. Traditional stoves, with poor airflow and lower combustion temperatures, typically emit more NOx.	
Reducing level/frequency/time of fly ash emissions? *Please specify*	Partly
Fly ash is generated when cooking over open fires. In Myanmar, an open fire type of traditional stove called a "three-stone" cookstove is used. This type of pollution is improved by using stoves with partially closed combustion chambers, as in this project.	
Reducing level/frequency/time of SPM (Suspended Particulate Matter) emissions? *Please specify*	Highly
Traditional stoves emit high levels of suspended particulate matter (SPM), including black carbon, due to incomplete combustion. The E-FREE stoves, with their 28% increase of thermal efficiency, significantly reduce SPM emissions, which are a major contributor to indoor air pollution.	
Reducing level/frequency/time of NMVOCs (Non Methane Volatile Organic Compounds)? *Please specify*	Slightly
By reducing incomplete combustion, the project marginally decreases the emissions of NMVOCs, which are responsible for secondary pollutants like ozone and photochemical smog.	

Reducing level/frequency/time of noise? *Please specify*	N/A
Reducing level/frequency/time of odours? *Please specify*	Slightly
Improved combustion minimizes the release of volatile organic compounds (VOCs), which are often responsible for the unpleasant smells associated with traditional biomass burning.	
Reducing level/frequency/time of dust? *Please specify*	Highly
Dust generated from fuelwood combustion is substantially reduced with the E-FREE stoves due to their enclosed design and efficient combustion process, minimizing ash and residue.	
Other air quality improvements? *Please specify*	Highly
The project significantly reduces household air pollution by lowering harmful emissions, such as carbon monoxide (CO) and black carbon, improving respiratory health and visibility indoors.	
Environment - Land	
Does the activity improve the soil quality and/or avoid soil pollution, waste disposal?	Yes (and I wish to specify)
The activity can improve the soil quality through the production and use of e.g. compost, manure nutrient and other fertilizers and/or avoid polluting the soil, waste disposal.	
*If answered 'Yes' to the question above, continue with the **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Environment - Water** section.*	
Specific indicators How and to what extent does the activity improve the soil quality and/or avoid soil pollution, waste disposal?	
Prevention of pollution from end-of-life products/equipment (solid waste)? *Please specify*	Slightly
The E-FREE cookstoves are made from natural materials such as clay and metal, which are biodegradable or recyclable. This minimizes long-term environmental impact. Moreover, the project replaces stoves every two years to maintain efficiency, ensuring proper management of end-of-life units through recycling and disposal programs.	
Production/use of compost? *Please specify*	N/A
Production/use of manure, mineral fertilizer or other soil nutrients? *Please specify*	N/A

Use of irrigation? *Please specify*	N/A
Use of measures to prevent soil erosion? *Please specify*	Highly
By reducing fuelwood demand, the project helps preserve forested areas. Forest roots stabilize the soil and prevent erosion, particularly in regions vulnerable to heavy rainfall. This measure indirectly reduces the risk of sedimentation in nearby water bodies.	
Practice minimum tillage? *Please specify*	N/A
Other means to improve land quality? *Please specify*	Highly
The efficient use of cookstoves plays a pivotal role in maintaining land quality by mitigating large-scale deforestation, soil erosion, and degradation associated with wood consumption as the primary fuel source. By enhancing cookstove efficiency, the amount of fuel wood harvested is minimized, ensuring it remains below the level of renewable biomass production	
Environment - Water	
Does the activity improve water in the area?	No (the activity has no direct impact)
The activity improves the quality of water and/or access to water through e.g. wastewater management, water savings, safe and reliable water distribution, purification/sterilization and cleaning of water etc.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Environment - Natural resources** section.*	
Specific indicators How and to what extent does the activity improve water in the area?	
Improved management and or control of waste water? *Please specify*	N/A
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Saving and/or conservation of water? *Please specify*	N/A
Reliable and accessible water supply though improved or new distribution? *Please specify*	N/A
Safe potable water through purification or a cleaner supply? *Please specify*	N/A

Improved ecological state of water bodies? *Please specify*	N/A
Other means to improve water? *Please specify*	N/A
Environment - Natural resources	
Does the activity protect or enhance depletable natural resources?	Yes (and I wish to specify)
The activity protects or enhances depletable natural resources and landscapes such as minerals, plants, animals, forests and their diversity.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Social - Jobs** section.*	
Specific indicators How and to what extent does the activity protect or enhance depletable natural resources??	
Mineral resources *Please specify*	N/A
Plant life (e.g. plant habitats) *Please specify*	Highly
By reducing deforestation, the project directly protects plant habitats and promotes biodiversity. Conserving forest areas allows native plants to thrive, maintaining ecosystem balance.	
Species diversity (e.g. animals, insects, birds) *Please specify*	N/A
Forests *Please specify*	Highly
In rural areas of Myanmar, approximately 70% of the population heavily relies on forests to meet their basic needs. Moreover, 82% of rural households in Myanmar use firewood as their primary cooking fuel. Implementing the E-FREE cookstove to enhance energy efficiency and reduce the consumption of non-renewable biomass could prevent large-scale deforestation biomass and it can ensure natural recovery of forests and/or reforestation.	
Other depletable natural resources (enhanced/protected) *Please specify*	N/A

Social - Jobs	
Does the activity create new jobs?	Yes (and I wish to specify)
The activity creates new job opportunities including income generation.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Social – Health & safety** section.*	
Specific indicators How and to what extent does the activity create new employment?	
New long-term jobs (> 1 year) *Please specify*	Partly
The project establishes long-term roles in cookstove maintenance and monitoring. These positions are primarily for local technicians and support staff involved in the project's operational phase.	
New short-term jobs (< 1 year) *Please specify*	Highly
During the production and distribution phases, the project creates a substantial number of temporary jobs. These include roles in stove manufacturing, distribution logistics, and awareness campaigns.	
New sources of income generation *Please specify*	Highly
By involving local entrepreneurs in the stove distribution network, the project creates new income streams for individuals and small businesses. This fosters economic growth at the community level.	
Other employment opportunities *Please specify*	Slightly
In Myanmar, firewood collection and cooking is mainly carried out by women, who are forced to spend a considerable amount of time collecting fuel. With the introduction of the E-FREE cookstove, the time spent collecting firewood will be reduced, giving women and other community members more time to engage in alternative economic activities. In addition, the project supports indirect job creation through increased demand for raw materials such as clay and metal used in stove production.	
Please indicate the number of persons employed/to be employed (provide numbers only) or leave blank if not known:	
New long-term jobs (> 1 year)	
New short-term jobs (< 1 year)	
Social – Health & safety	
Does the activity result in health and safety improvements?	Yes (and I wish to specify)
The activity reduces health risks such as diseases and accidents or it improves health conditions through activities such as construction of a hospital, running a health care centre, preservation of food, reducing health damaging air pollutants and indoor smoke. Avoided accidents such as gas explosions or fires from landfills or mines are included under health and safety benefits.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Social - Education** section.*	

Specific indicators How and to what extent does the activity result in health and safety improvements?	
Reduction of diseases, disease prevention *Please specify*	Highly
The project reduces the risk of respiratory diseases by minimizing indoor air pollution. Studies have shown that households using improved cookstoves experience significantly lower exposure to pollutants such as CO and PM2.5.	
Reduction of accidents (e.g. fire hazards) *Please specify*	Slightly
The project decreases the likelihood of burns and fires by replacing open flames with enclosed cookstove designs. Additionally, reduced reliance on fuelwood collection lowers the risk of injuries from handling sharp tools or falling debris.	
Reduction of crime *Please specify*	N/A
Preservation of food *Please specify*	N/A
Reducing health damaging indoor air pollution *Please specify*	Highly
The traditional indoor use of stoves is characterized by low energy efficiency, resulting in the consumption of large amounts of fuelwood and exposure to significant levels of harmful emissions due to incomplete combustion. This exposure is known to be detrimental to health, contributing to chronic respiratory diseases, acute respiratory infections, cataracts, blindness and adverse effects on pregnancy. E-FREE stoves promote high combustion efficiency, ensuring that most of the fuel is burned with minimal smoke emissions. Therefore, the use of E-FREE cookstoves provides a safer environment for local residents and reduces the health risks associated with the use of traditional cookstoves.	
Enhancement of health services (hospitals, doctors, medication etc.) *Please specify*	N/A
Improved sanitation and waste management (i.e. facilities that offer the possibility of deposing of waste in a sanitary way) *Please specify*	N/A
Other health and safety improvements *Please specify*	Slightly
The reduced reliance on fuelwood reduces physical strain on women and children who are typically responsible for wood collection. This contributes to overall safety and well-being.	

Social - Education	
Does the activity facilitate education, dissemination of information, research or increase awareness?	Yes (and I wish to specify)
The activity facilitates education, dissemination of information, research and increased awareness related to e.g. waste management, renewable energy resources and climate change through construction of a school, running of education programmes, site visits and tours.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Social - Welfare** section.*	
Specific indicators How and to what extent does the activity facilitate education, dissemination of information, research or increase awareness?	
Job related training (vocational etc.) *Please specify*	Highly
The project includes comprehensive training programs for local technicians and workers on efficient stove production, distribution, and maintenance. This enhances technical skills and provides long-term vocational benefits.	
Enhanced educational services (schools, teachers, affordability, quality etc.) *Please specify*	N/A
Project related knowledge dissemination (project related site visits and tours etc.) *Please specify*	N/A
Other educational benefits *Please specify*	Slightly
By reducing time spent on fuelwood collection, the project allows women and children more time for education and skill development activities.	
Social - Welfare	
Does the activity improve the welfare of people?	Yes (and I wish to specify)
The activity improves local living and working conditions including community or rural advancement, reduced traffic congestion, poverty alleviation and income redistribution e.g. through increased municipal revenues.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Economic - Growth** section.*	

Specific indicators How and to what extent does the activity improve the welfare of people?	
Improvement of working conditions *Please specify*	Highly
In Myanmar, women are primarily responsible for cooking and collecting fuelwood for other family members. Cooking on the project's E-FREE cookstove not only improves their working conditions, but also reduces or eliminates the need to collect large amounts of fuelwood for the stoves.	
Community or rural advancement *Please specify*	Partly
The project contributes to rural development by engaging local communities in stove production and distribution activities, fostering economic activity at the local level.	
Poverty alleviation (more people above poverty level) *Please specify*	Slightly
By reducing household fuel expenses, the project helps participants to alleviate poverty.	
Improving wealth distribution and/or generation of income and assets *Please specify*	Partly
The project improves wealth distribution by involving marginalized groups in stove-related economic activities, enabling them to generate sustainable income.	
Increased municipal revenues *Please specify*	N/A
Empowerment of women (e.g. optimize tasks undertaken by women) *Please specify*	Highly
E-FREE cookstoves primarily benefit women because the majority of E-FREE cookstove users are women who spend a lot of time collecting wood. Using an efficient cookstove reduces fuel consumption, which in turn reduces the time spent collecting wood. This can empower women by allowing them to spend time on education or other economic activities.	
Reduced traffic congestion *Please specify*	N/A
Other welfare benefits *Please specify*	Slightly
Improved indoor air quality leads to a healthier living environment, contributing to overall family well-being.	

Economic - Growth	
Does the activity support economic development and/or stability?	Yes (and I wish to specify)
The activity contributes to economic development and stability through initiation of e.g. new industrial activities, investments, establishment and maintenance of infrastructure, enhancing productivity, reduction of costs, setting an example for other industries and creation of business opportunities.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Economic - Energy** section.*	
Specific indicators How and to what extent does the activity support economic development and/or stability?	
New economic investment as result of the project *Please specify*	Highly
The project attracts investment in the production and distribution of improved cookstoves, leading to the establishment of new production facilities and related infrastructure in local communities.	
Initiation of new industrial/commercial activities *Please specify*	Highly
The project promotes the establishment of local enterprises focused on stove manufacturing, distribution, and maintenance, creating a new industry in the region.	
Establishment and maintenance of new infrastructure *Please specify*	N/A
.	
Enhancement of productivity of existing production *Please specify*	N/A
Reduction of costs of production or services *Please specify*	N/A
Creation of new business opportunities *Please specify*	Highly
The project opens up new entrepreneurial opportunities for local distributors, technicians, and raw material suppliers, fostering economic activity in the region.	
Other economic benefits *Please specify*	N/A

Economic - Energy	
Does the activity improve energy availability and/or access?	Yes (and I wish to specify)
The activity improves access, availability and quality of electricity and heating/cooling services such as coverage and reliability.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Economic – Technology transfer** section.*	
Specific indicators How and to what extent does the activity support economic development and/or stability?	
Improved coverage/availability of supply of energy (e.g. distribution, hours of the day) *Please specify*	Slightly
The project improves energy availability by reducing the need for excessive biomass harvesting, allowing communities to access sufficient fuelwood over longer periods.	
Improved access to energy (e.g. points of delivery) *Please specify*	Slightly
The introduction of efficient cookstoves simplifies access to energy by reducing the frequency and volume of fuelwood collection needed for cooking.	
Affordability and/or reliability of energy *Please specify*	Highly
E-FREE cookstoves lower the overall cost of cooking energy for households by reducing fuelwood consumption by 60-70%, as documented in monitoring reports. This makes energy more affordable and reliable for users.	
Other improvements to energy *Please specify*	N/A
Economic – Technology transfer	
Does the activity result in a change in technology?	Yes (and I wish to specify)
The activity facilitates transfer of imported technology or diffusion of new local technology. Development of knowhow on how to adapt new technologies to a country/region and innovation of equipment and processes are included as technology transfer benefits.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Economic – Balance of payments** section.*	
Specific indicators How and to what extent does the activity result in a change in technology?	
Introduction, development and diffusion of imported technology? *Please specify*	N/A

Introduction, development and diffusion of new local technology? *Please specify*	Highly
The project introduces locally developed E-FREE cookstoves, which are specifically designed to meet the cooking needs of the target communities while improving efficiency and reducing environmental impact. These stoves are manufactured locally, supporting the dissemination of improved technology within the region.	
Adaptation of new viable technologies to local circumstances? *Please specify*	Highly
The project customizes the design and production of cookstoves to suit local cooking habits and available materials, ensuring that the technology is appropriate and widely adoptable.	
Activities that build usable know-how for a technology? *Please specify*	Highly
The project provides hands-on training to local technicians and manufacturers on stove production, maintenance, and distribution, ensuring the sustainability and local ownership of the technology.	
Other technological benefits *Please specify*	N/A
Economic – Balance of payments	
Does the activity contribute to improving the country's balance of payments?	N/A (the question is not relevant)
The activity contributes to reduction in the use of foreign exchange through a reduction of imported fossil fuels in order to increase national economic independence.	
*If answered 'Yes' to the question above, continue with **Specific indicators** below.* *If answered 'No' or 'N/A', go to the **Further information** section.*	
Specific indicators How and to what extent does the activity contribute to improving the country's balance of payments?	
Reduction of the dependency on foreign sources of energy *Please specify*	N/A
Other macroeconomic benefits *Please specify*	N/A
Further information	
Do you have any further information that highlights the sustainable development co-benefits of the activity? Please specify	N/A (the question is not relevant)

SECTION 3: THIRD PARTY ASSESSMENT AND CONTACT INFORMATION	
Third party assessment Could the statements made below be verified by the third party?	
Has an independent third party (environmental auditor, voluntary standards organization, designated operational entity etc.) verified the statements made in the SD description you are about to submit?	No
If YES, please specify the name or type of verifying organisation or any other relevant information	
Are you willing to have an independent third party verify the statements made in the SD description you are about to submit?	No
If YES, please specify further details (if any)	
Contact information	
Title	Ms.
First Name	Kwack
Last Name	Hyun Shin
Organisation	Climate Change Center
Tel number *(incl. country code, for instance +492288151000)*	+959409066806
Email address	hskwack@climatechangecenter.kr
Affiliation to CDM *(e.g. project owner/operator, project developer, project investor, project consultant etc.)*	Coordinating Managing Entity
Are you the person listed in the latest version of the form Modalities of Communication statement (F-CDM-MOC) for this project?	Yes
If NO/Other please specify:	

ACKNOWLEDGEMENTS

The content of the SD tool has been guided by the following sources of information (listed in no particular order), inter alia:

CDM project documentation (all registered projects up to March 2012), IPCC AR5 WG III, Account Ability (AA1000) Stakeholder Engagement Standard, German International Climate Initiative (ICI), The Gold Standard, The Crown Standard, Forest Stewardship Council (FSC), Roundtable on Sustainable Biofuels (RSB), Climate Community and Biodiversity Alliance (CCBA), EU Compliance report for LoA template, World Commission on Dams (WCD), International Labour Organization (ILO), CDM Watch, World Bank Safeguard Policies, The International Finance Corporation Performance Standards, Hydropower Sustainability Assessment Protocol, Equator Principles, UN Commission on Sustainable Development (CSD), UN Millennium Development Goals (MDGs), UN Global Compact, World Health Organization (WHO), Outcome of the UN Conference on Sustainable Development (Rio+20), public call for inputs (EB68) and peer reviewed literature.

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Document information

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01.1	1 April 2014	Editorial revision to improve consistency of language throughout.
01.0	23 November 2012	EB 70, paragraph 82. Initial approval.

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