ANNEX AM – POA PASSPORT TEMPLATE

CONTENTS

SECTION A. Programme Title

[See Toolkit 1.6]

Title: Efficient And Clean Cooking For Mozambican Low Income Households PoA

Date: 10/10/2017

Version no.: 1.0

SECTION B. Programme description

[See Toolkit 1.6]

Estimated start date of the programme: The start date of the programme is July 2015 as a pilot in the suburbs of Maputo. The implementation of the stoves started in January 2016. Therefore, this is a retroactive programme.

Firewood and charcoal are the main sources of energy for cooking, heating and illuminating the Mozambican households. 75% of urban households rely on wood and charcoal for their energy demands. In rural households, almost 98% use wood for energy while 2% use charcoal. Although 70% of the current population resides in rural areas, is not this part of the population that constitutes the major risk for threatening the forest resources, but the remaining 30% of the population that lives in the urban and peri-urban areas, that is still highly dependent depending on firewood and charcoal as the main source of domestic energy. This pattern is explained by the low density population and high wood biomass availability in rural areas, while in the urban zones there is a prevalence of the opposite pattern. Thus, results in a very high pressure on forests adjacent to cities and along roads that are supplying the cities.

According to Marzolli (2007)[1], this demand for biomass is responsible for the increasing deforestation and forest degradation, which have been identified as the main sources of environmental problems in the country. Additionally, the use of non-efficient technologies for cooking aggravates the problem resulting in higher energy and biomass losses.

The use of improved cookstoves is one of the possible solutions to tackle the challenge that represents managing the loss of forest cover in urban and peri-urban areas and other ecosystems that act as fuel sources for dense populated areas. Although improved stoves are not a novelty in Mozambique, the majority of the people are not aware about the possibilities they offer in terms of reduction of fuel usage. Moreover, there are neither

[1] Available at: http://bit.ly/2gtmMzi

solid technical skills and production capabilities nor access to startup finance for energy business or business skills on marketing efficient cookstoves.

Mozambique Carbon Initiatives LDA (MozCarbon) is implementing a Programme where the activities include the installation of improved cookstoves in Mozambique to replace the traditional cookstoves. The main goal of the project is to reduce the use of charcoal/firewood for domestic use with the use of the improved cookstoves to tackle the major problems related to cooking in the country of Mozambique as deforestation and forest degradation, reduce the incidence of respiratory diseases resulting from indoor air pollution, high expenditure in fuel for cooking and, of course, the reduction of emissions of carbon dioxide and other greenhouse gases associated to climate change. By implementing this programme, MozCarbon aims to generate the carbon credits, allowing the households to possess an improved stove at subsidized price. The dissemination started in Maputo province and will then move to other parts of the country. The stoves to be disseminated include charcoal and cooking stoves which reduces at least 40% of charcoal or firewood when compared to traditional stoves. The stoves being considered include the below indicated and others with the threshold above indicated.





BENEFITS OF IMPROVED STOVES

Reduction of wood and charcoal consumption and consequently deforestation and forest degradation: Firewood and charcoal are the main sources of energy for cooking, heating and illuminating the Mozambican households. 75% of urban households rely on wood and charcoal for their energy demands. In rural households, almost 98% use wood for energy while 2% use charcoal. Although 70% of the current population resides in rural areas, is not this part of the population that constitutes the major risk for threatening the forest resources, but the remaining 30% of the population that lives in the urban and peri-urban areas, that is still highly dependent depending on firewood and charcoal as the main source of domestic energy. This pattern is explained by the low density population and high wood biomass availability in rural areas, while in the urban zones there is a prevalence of the opposite pattern. This, results in a very high pressure on forests adjacent to cities

and along roads that are supplying the cities. Using ICS will probably reduce the use of charcoal/firewood and consequently reduce deforestation and forest degradation.

Reduction of the incidence of respiratory diseases associated with cooking: The last report of the World Health Organization estimates that about 3.5 million persons die every year as a consequence of the use of non-efficient cookstoves. These inefficient technologies are responsible for high levels of indoor air pollution. Most of the affected are women and children. In this context, improved biomass cooking solutions are one of possible solutions that can help to tackle this problem by allowing better combustion and reduction of smoke in the kitchen.

Stoves have positive impacts in the household economy: the benefits include the reduction in costs for purchasing fuel (firewood and charcoal), as a result of reduction of consumption of these fuels. The savings can be used in other household needs. The time for searching and carrying wood is reduced in rural areas. The stoves/programme has a potential to generate employment in production, dissemination and other programme activities. Also knowledge will be increased.

Improved stoves reduce the emissions of greenhouse gases, mainly the carbon dioxide, reducing the global warming and tackling climate change.

SECTION C. Proof of programme eligibility

C.1. Location of the Programme of Activities (Physical/Geographical boundary)

[See Toolkit 1.2.b & Annex F - Section 2]

Country– Mozambique

District – all the districts

Town/Village – all the towns/villages

The programme will potentially cover all the eleven (11) provinces of Mozambique, including rural areas, where the demand is for firewood for cooking and in urban and peri-urban areas where there is an enormous demand for charcoal.

C.2. Programme Type

[See Toolkit 1.2.c and Annex C]

Please tick where applicable[2]*:*

Programme type	Yes	No
Do the activities within the program, classify as a Renewable Energy project?	☐	☒
Do the activities within the program classify as an End-use Energy Efficiency Improvement project?	☒	☐
Do the activities within your program classify as a waste handling and disposal project?	☐	☒

[2] In case your programme falls under all categories, please check all the 'Yes' boxes.

Please justify the eligibility of your programme:

The purpose of the Programme is to reduce the greenhouse gas emission through the replacement of traditional cookstoves by improved cookstoves. The objective is to tackle major problems related to cooking in Mozambique: deforestation for wood and charcoal production, major incidence of respiratory diseases resulting from indoor air pollution and high expenditure in fuel for cooking.

The Programme will distribute and monitor the use of at least 250.000 improved biomass cookstoves (wood and charcoal) in Mozambican cities, with the aim of controlling deforestation and degradation processes of Mozambican forests, reduce the emission of Greenhouse Gases (GHG) and improve the air quality and offer better health conditions to users of domestic stoves. Several types of stoves were identified and some were distributed: Envirofit models (CH2200 charcoal, Econochar charcoal, Econofire wood), Rocket Works, Mbaula stove (a stove with a metal sheet or aluminium with clay based charcoal rest), Zavala stove (clay based charcoal stove) and ACE 1 cookstove. The project is in line with the objectives of the Government of Mozambique and aimed to:

1) reduce absolute poverty: the programme will contribute by creating income and employment through the improved stove value chain, will save fuel, so that money saved can serve other family needs , will reduce indoor air pollution related diseases, so that will have direct consequences to family's economies and will also be reflected in the country's finance. Savings can be applied to other poverty reduction initiatives.

2) Improve environmental sustainability: The programme will contribute reducing deforestation and forest degradation and lowering the emission of anthropogenic greenhouse gases.

In general, the project will contribute to the broader Millennium Development Goals by ensuring environmental sustainability, reducing child mortality rates; contribute to eradicate extreme poverty and hunger by reducing the number of people with income less than 1 USD by establishing a platform for employment.

Those objectives will be achieved through the active engagement of all stakeholders including the civil society, the government, the private sector, and the end beneficiaries of the stoves which are the household members.

Pre Announcement	**Yes**	**No**
Was your programme previously announced?	☒	☐
Explain your statement on pre announcement Mozambique Carbon Initiatives LDA was created originally to develop carbon projects. This can be found in the statutes of the company. This prove that the core business from the beginning was carbon projects.		

The initial due diligence by South Pole (the Carbon consultant) identified the stove project as the priority among the different projects in the portfolio of MozCarbon, and it was designed to run under carbon credits, The assessment of the portfolio of the proponent projects was based in the carbon credits (CER/VER) potential.

Before the implementation, a letter was sent to the Designated National Authority (DNA) requesting approval to run a carbon credits improved stove project. Under this framework, the LoNO and the LoA was granted.

C.3. Greenhouse gas

[See Toolkit 1.2.d]

Greenhouse Gas	
Carbon dioxide	☒
Methane	☐
Nitrous oxide	☐

SECTION D. Stakeholder Consultation and Sustainability Assessment at PoA/ CPA (VPA) level

	PoA	**CPA/VPA**
At what level is the LSC done?	☒	☒
At what level is the SD assessment done?	☒	☒
At what level is the DNH assessment done?	☒	☒

Provide justification if the LSC/SD/DNH assessment is done only at PoA level.

NA

Provide set of Sustainable Development Criteria for inclusion of CPA/VPA if SD assessment is done only at PoA level

NA

SECTION E. Outcome of the stakeholder consultation process at PoA level

E.1. Assessment of stakeholder comments

[See Annex J]

[See PoA - Local Stakeholder Consultation Report section C.3 and insert table from 'iii Assessment of comments'. Insert a summary of alterations based on comments]

The main comments and discussions on the project from the different participants are as follows and can be consulted in the table below:

- There is a need to create a sustainable market for the improved stoves in Mozambique
- The stove price for the final buyer need to be review with care, as the majority of the people in neighborhoods of Maputo are below the poverty line.
- Government involvement should facilitate creating a conducive environment for clean cooking markets through policies that include tax instruments and a high profile for clean cooking issues.
- Participants strongly suggested that the implementer support should focus on addressing barriers related to awareness, access to finance, knowledge sharing and ensuring high quality of product standards.
- The stoves should be sold at subsidized price against the benefits of carbon credits

- There is a need to use simple language when presenting the benefits of improved biomass stoves to the communities
- How to integrate the people who sell charcoal as is expected reduction in revenues because of the massive use of improved stoves?
- There is a need of teaching cooking practices in terms of stove usage, to combine the benefits of the stoves with good cooking practices.
- The issue of price and subsidies was among the most discussed topics in the local stakeholder consultation
- Institutions working with improved stoves should work together to avoid effort duplication and to allow better coordination of actions.

Stakeholder comment	**Was comment taken into account (Yes/ No)?**	**Explanation (Why? How?)**
There is a need to create a sustainable market for the improved stoves in Mozambique	Y	Stoves are not handed for free; people need to pay for stoves. If not possible in cash, installments are allowed. MozCarbon and other sell stoves taking into account the need not to create market distortions. Also, significant part of the income from stoves is re-invested on stoves and awareness campaigns.
The issue of stove price should be seen with attention, as the majority of the people in neighborhoods of Maputo are below the poverty line.	Yes	Stove is sold at less than 40% of its real cost. Also, there is the possibility for the people in the community to buy stoves in installments
The stoves should be sold at subsidized price against the benefits of carbon credits	Yes	Stove is sold at less than 40% of its real cost. Also, there is the possibility for the people in the

		community to buy stoves in installments
There is a need to use simple language when presenting the benefits of improved biomass stoves to the communities	Yes	It is important to highlight that the communication is the best vehicle to raise awareness of the communities about the benefits of using improved and clean stoves. The project proponent uses local and simple language in some cases to communicate with the people. The promoters were trained to explain project concepts in local simple language. Also, in general, the promoters are from the communities where the project is implemented, thus facilitating communication, by translating scientific and academic language to comprehensible meaning when explaining concepts like carbon credits, carbon dioxide, combustion, etc.
How to integrate the people who sell charcoal as is expected reduction in revenues because of the massive use of improved stoves?	Yes	Some of the people who sell charcoal are also stove promoters, thus earning a percentage (commission) per stove sold, generating income to fill the gap created by the decrease of charcoal sales.
There is a need of teaching cooking practices in terms of stove usage, to combine the benefits of the stoves with good cooking practices.	Yes	Each stove sold by a promoter is accompanied by an explanation of stove usage and maintenance, and also, cooking practices as soaking beans per example.

I heard about carbon and I still do not understand. I'm from the community. We will have to work very hard with the communities in order to make them use stoves and understand these concepts. In the community it is advised to use simple (local) language so people will understand the message. (Maria Leonor - Community representative)	Yes	The whole concept of carbon credits was re-explained based on the presentation. Also, considerable funds will be made available for awareness campaigns
(i) My observation is that families use 1.5 sacks of charcoal per month, equivalent to 3-5ton CERs/year. There is a need for the subsidies because if 1 stove generate 2 tons of carbon emission reductions, multiplying by the price of 8USD and stoves disseminated, there is a room for subsidies. (ii) Different presentations no mention to better use of stove and different cooking techniques to use stove efficiently. Even if this is not important for carbon credits this has to be implemented. Example soak beans before cooking, kitchen protection, etc (Peter Coughlin – Econ Policy Group)	Yes	(i) Donor Funded projects for example the CBNRM have failed after the donors left. This shows the risk of subsidies. Example Mbaula save 40% in charcoal. Meaning that savings can pay for the stove. But as a carbon project developer, for the project, the stove will be subsidized. But is good to create capacity in long term for the market intervenient to make stoves a profitable business to develop the market. Examples from Association Mbeu. (ii) In fact, one of the components of the stove is awareness raising and, this is contemplated.
Which will be the price of the stove? (Narciso Sozinho – Local resident)	Yes	We expect to sell the stoves for an affordable price. We expect not be more than 500MT per ICS.
It is important because the project has its focus in the	No	In fact, Changalane was a supplier of charcoal to

community. Changalane is a big supplier of charcoal to Maputo. How involve the charcoal producers in the project? (Maposse – One World University)		Maputo. Now, there are no forests capable to produce charcoal for Maputo. Charcoal comes now from Gaza and some parts of Inhambane province. One way to involve the producers is to teach techniques to add value to the charcoal produced, so they could sell in higher markets. Charcoal vendors were integrated in selling improved stoves in fixed charcoal selling points. They earned a percentage for each stove sold, filling the gap of the anticipated decrease of charcoal sales.
We are project developer with same intentions as yours. Who will certify? You said that there was no limitation in terms of stoves to be used in the project. We were advised by the consultant to use certified stoves (showing envirofit stoves). Our project is equal but the one difference is in the product to be distributed. I suggest you to use better stoves. Is one of the weakness of your project. The one you presented are not certified (I don't know). Which authority after the Ministry of Environment will certify the stoves? (Alessandro	Yes	We will not distribute stoves for free. So families have to disburse some cash to have it. We are working to determine the price to be affordable. There are experiences and studies from PROBEC with the price people are willing to pay for charcoal improved stoves. Sales strategies include community sales, door to door and fixed stations. There are two separate mechanisms for the carbon projects. There is CDM and Gold Standard. We will go for Gold Standard. About the quality of stoves to be used. We are working with faculty of engineering to test the stoves to comply with carbon requirements. Also

Galimberti – Fundação AVSI)		with a lab in the Johannesburg University (SETAR). We are working to improve the locally available stoves. Currently, the project distributes Envirofit (world lead manufacturer of improved biomass stoves) and Chazam, which are certified by accredited laboratories.
Do you have producers of stoves? Modalities for buying from producers and when? What type of stoves are you considering? If there is a producer ready today, are you able to buy? (Peter Coughlin – Econ Policy Group)	Yes	We will include different stoves, as long as they are approved by the laboratory through the test. We have contacts with different producers which we cannot mention as a matter of business confidentiality. First, we will buy with associations which we are working with. We are working with stove producers associations. Micas Cumbane responded: we have funds to fulfill the expectations from the project. E.g, we were selected to implement the EEP S&EA project in Mozambique, donor funding constitutes part of the available funding, apart of the investors.
You said you will distribute in the first phase 13000 stoves. For how long will you distribute? (Sitoe – Kulima NGO)	Yes	The distribution has to be quick as we are eager to see the benefits to the poor. We expect to distribute the stoves in

		one year and, as it is a PoA, it is expected thousands of stoves delivered to the poor.
Which mechanisms to fulfill the social, economic and environmental? (Maposse- One World University)	Yes	The proponent will make sure that all actors are involved in the project. The socio-economic will be fulfilled by allowing more people to access clean energy, reduce the expenditure in fuel, reduce indoor pollution and associated respiratory diseases. The environmental benefits will be the reduction of emission of greenhouse gases and reduction of deforestation and forest degradation.
Working currently with SNV in stoves and your project is one of the kind we would be interested in funding We are to install a lab at UEM premises. Working with UEM to test stoves. We have to guarantee quality so we need a lab for testing. We have to use certified stoves. We have to work all together to avoid duplicating efforts. The stoves under the EnDev framework must at least be 40% efficient compared to traditional stoves. We have to work together to meet this criteria.	Yes	As a result of the comments and the follow up meetings with GIZ, the proponent decided to implement Envirofit and Chazam stoves, suggested within these meetings. Also, further work was done with the proponent to install a Biomass Emissions Testing Center (BECT) at Eduardo Mondlane University, dedicated to do different tests within the biomass sector. This testing center was further integrated as one of the RTKC (Regional Testing and Knowledge Centers) within the framework of the Global

(Rosario Loayza – Biomass Component Manager GIZ-EnDev)		Alliance for Clean Cookstoves. About the need for collaboration among biomass energy stakeholders, the proponent is a member of the renewable energy steering committee in Mozambique.

Summary of alterations based on comments

As the production and dissemination of improved stoves in Mozambique is juvenile phase, the first project approach of working with local associations to produce stoves for the project was abandoned for the first VPA, as we were not sure if those associations would able to deliver the stoves with the quality and quantities for large scale dissemination. Basically, we took into account the recommendations on the need to use high quality and certified stoves. So, the stoves presented to the audience were not used for the first VPA. For this, imported stoves from Envirofit, Rocket Works and others were used. As standardization of local production occur and quality of stoves improve, the project proponent will shift for locally produced stoves.

Also, the need to make the stoves affordable to the households which in fact are low income was taken into account. Based on the anticipated carbon credits, the stoves are sold close to one third of the cost, making uptake quicker by the peri-urban dwellers.

E.2. Stakeholder Feedback Round (in case LSC is done at PoA level)

Please describe and report how the feedback round was organised, what the outcomes were and how you followed up on the feedback.

[See Toolkit 2.11]

The participants were encouraged to give feedback through the different mechanisms suggested: email contacts, telephone contacts, visit to the field or main office of the project developer for face to face discussions. the contacts available and presented during the LSC meeting. In addition to this, copies of the project documentation made available printed in the main office and field offices (community center) of George Dimitrov and Magoanine. Email consultations and face-to-face consultations were held when required. Most of the consultations were answered by the GIZ and the National Energy Fund, either face to face or by email.

E. 3. Discussion on continuous input / grievance mechanism

[See Annex W]

	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	Book is available for project ideas and inputs from stakeholders (livro de reclamações e sugestões) specifically for the project is available at field office (community center) in George Dimitrov and Magoanine and in the main office of the project proponent.	Most people have access to the field office (community center) either to purchase stoves or to ask questions or make commentaries. Is a place accessible to all community members.
Telephone access	Telephone numbers are available. These are of the main project management personnel and field officers.	Norato Xerinda xerinda1@gmail.com +258848902245 Micas Cumbana

		mycasnoa@gmail.com +258845382883
Internet/email access	Email addresses are available for all queries, comments and inputs to the project.	Norato Xerinda xerinda1@gmail.com +258848902245 Micas Cumbana mycasnoa@gmail.com +258845382883
Nominated Independent Mediator (optional)	Input and grievance through the mediator Cristina Cumbe in the George Dimitrov Community Center	Cristina Cumbe +258 828414658

The Continuous input / grievance mechanism should be implemented for all activities within the PoA as per feedback received during PoA LSC. All issues identified at the activity level (CPA/VPA) during the crediting period through any of the Methods shall have a mitigation measure in place. The identified issue should be discussed in the revised activity Passport and the corresponding mitigation measure should be added to sustainability monitoring plan in the activity Passport.

SECTION F. Outcome Sustainability Assessment[3]

F.1. 'Do no harm' Assessment

[See Toolkit 2.4.1 and Annex H]

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
Human Rights:			

[3] In case, DNH/SD assessment is done at the Programme level, DNH/SD assessment per technology/practice included in the Programme shall be provided. In case the DNH/SD assessment is done at the activity level this section may not be filled.

1. The project respects internationally proclaimed Human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses.	The project is based on voluntary participation. The improved cookstoves introduced does not change the cultural cooking habits, as it still uses the same biomass fuel as the traditional cooking device. Furthermore, the project will improve local health through reduced indoor air pollution from reduced use of high emission stoves. Mozambique is part of the African Commission on Human and People's Rights[4]	Low	N/A
2. The project does not involved and is not complicit in involuntary resettlement.	The project does not lead to resettlement, as no communities will need to be relocated due to project activities. Mozambique adopted the Regulation for Resettlement Resulting from Economic Activities[5]	Low	N/A
3. The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage.	Local cooking practices will be preserved with the installation of clean cookstoves. The new cookstoves do not involve a fuel change or traditional cooking practices to be changed either. This technology does, however, improve livelihoods of the beneficiaries. Mozambique has ratified UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage[6]	Low	N/A
Labour Standards:			
4. The project respects the employees' freedom	The project generates employment through	Low	N/A

[4] http://www.claiminghumanrights.org/au.html

[5] http://www.acismoz.com/lib/services/translations/Regulamento%20de%20Reassentamento%20August%20as%20published%20JO.pdf

[6] http://www.unesco.org/eri/la/conventions_by_country.asp?language=e&contr=MZ&typeconv=1

of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights.	distribution and monitoring of stoves. The project proponent respects all employees' freedom of association and does not restrict these rights. Mozambique has ratified the ILO Convention 87, Freedom of Association and Protection of the Right to Organize Convention[7]. Mozambique labour law (article 137, Right of association)[8]		
5. The project does not involve and is not complicit in any form of forced or compulsory labour.	Participation in the project is voluntary; Mozambique has ratified ILO Convention 29 and 105[9]	Low	N/A
6. The project does not employ and is not complicit in any form of child labour.	Mozambique has ratified ILO Convention 138 and 182, Minimum Age Convention and Worst Forms of Child Labour Convention.[10] The project proponent will only hire workers older than 18 years old, the minimum working age in the country.	Low	N/A
7. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.	The project technology is equally accessible to any communities. Furthermore, the project does not involve any form of discrimination based on gender, race, religion, sexual orientation, or any other basis. Mozambique has ratified ILO Convention 100 and 111, Equal Remuneration Convention and Discrimination (Employment and Occupation) Convention[11]	Low	N/A

[7] http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102964
[8] http://www.tipmoz.com/library/resources/tipmoz_media/labour_law_23-2007_1533E71.pdf
[9] http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102964
[10] http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102964
[11] http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102964

8. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.	Project proponent of each VPA buys the cookstoves materials from other suppliers. In the case of direct hiring, project proponent will show proofs of payments to the Social Security System, which includes health, pensions and labour risks. Mozambique has ratified the ILO Convention 17, Workmen's Compensation (Accidents) Convention. [12]	Low	Even though the project activities are not unsafe or unhealthy, the project proponent provide training of the staff involved in the project activities to guarantee safe and healthy work environment to its workers.
Environmental protection:			
9. The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.	The project does not lead to any harmful effect to the environment or human health. On the contrary, the use of improved cookstoves contributes to a better combustion of the fuel, which can reduce indoor air pollution associated with the less efficient baseline technology. The use of improved cook stoves can also decrease the pressure on forest resources, helping to conserve forest areas.	Low	N/A
10. The project does not involve and is not complicit in significant conversion or degradation of critical natural habitat, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional local communities.	Progressive deforestation due to uncontrolled consumption of wood or charcoal for fuel has enormous social, environmental, and climate consequences as the loss of trees directly impacts biodiversity with loss of habitats for animals as well as loss of plant life required for a balanced ecosystem[13]. When combustibles are unsustainably harvested, this contributes to deforestation, forest degradation, loss of habitat and biodiversity[14].	Low	N/A

[12] http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:102964

[13] Household cookstoves, environment, health and climate change: a new look at an old problem (63217, Washington, DC: World Bank). 2011. http://cleancookstoves.org/resources_files/household-cookstoves.pdf

[14] Anenberg, Susan C., et al. "Cleaner cooking solutions to achieve health, climate, and economic cobenefits." Environmental science & technology 47.9 (2013): 3944-3952. Available at: http://pubs.acs.org/doi/pdf/10.1021/es304942e

	The use of improved cookstoves can lead to the reduction of these negative impacts generated by the use of traditional cookstoves.		
Anti-corruption:			
11. The project does not involve and is not complicit in corruption.	MozCarbon, the project proponent, proceed on all project activity related through formal and transparent methods. MozCarbon employees follow a very strict code of conduct presented in its internal regulations (Regulamento Interno), which forbid all acts against the law and unfair treatment of clients and other people and institutions which engage with the proponent. Also, the work of the proponent is under the laws of the republic of Mozambique which discourage corruption and other illicit practices.	Low	N/A
Additional relevant critical issues for my project type	**Description of relevance to my project**	**Assessment of relevance to my project (low/medium/high)**	**Mitigation measure**
N/A	N/A	N/A	N/A

F.2. Sustainable Development matrix

[See Toolkit 2.4.2 and Annex I]

Insert table as in section D3 from your Stakeholder Consultation report (Sustainable Development matrix).

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score

Gold Standard indicators of sustainable development	If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-'	Check www.undp.org/mdg and www.mdgmonitor.org Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated No change in impact: score '0' Positive impact: score '+'
Air quality		MDG 4 (Reduce Child Mortality), 5 (Improve Maternal Health) and 7 (Ensure Environmental Sustainability). Indoor biomass/charcoal cooking smoke is associated with a number of diseases, including acute respiratory illnesses and even cancer, with women and young children affected disproportionately. The project activity aims to enhance the use	Perception of change of smoke and impacts on health and well-being	+

		of clean cookstoves, allowing better combustion of solid biomass/charcoal, which can reduce indoor air pollution associated with the less efficient baseline technology.		
Water quality and quantity		MDG 7. Biomass fuel collection and charcoal production can lead to a gradual deterioration of the local environment. The project activity can allow the reduction of pressure on forest resources, helping to conserve forest areas, which can lead to preservation of ecosystem water services.	The project activity does not affect directly on water quality and quantity and then no parameters will be monitored.	0
Soil condition		MDG 7. Biomass fuel collection and charcoal production can lead to a gradual deterioration of the local environment. The project activity can allow the reduction of	The project activity does not directly affect erosion, so no parameters will be monitored. There is a possibility that less trees cut for charcoal	0

		pressure on forest resources, helping to conserve forest areas, which indirectly leads to a decrease in soil erosion.	and wood may reduce erosion but this impact can not be accurately verified and monitored.	
Other pollutants		No impact	No impact	0
Biodiversity		MDG 7. Progressive deforestation due to uncontrolled consumption of wood for fuel can lead to a gradual deterioration of the local environment. The loss of trees impacts biodiversity. The project activity can help to conserve forest areas, which can leads to the preservation of biodiversity.	The project activity does not directly affect biodiversity, so no parameters will be monitored unless a real risk of biodiversity deterioration (e. g. the use of an endangered species for fuelwood) is identified.	0
Quality of employment		MDG 1 (Eradicate extreme poverty and hunger). The members of community have the opportunity to become cookstove promoters in the project area. Also, training is provided to the	Number and description of local workers hired. Number and description of training sessions. Minimum age of employment according to the contracts to indicate the	+

		employees for maintenance of and sale of the stoves. Furthermore, MozCarbon Initiatives will ensure that no children will be employed by the project.	inexistence of child labour. Description of the working conditions.	
Livelihood of the poor		MDG 1. The use of the improved coostoves reduce the amount of biomass and charcoal needed. Then, users who used to collect wood reduce the time need for wood collection that can be spent in other activities, including economic activities, generating more income for the household. Similarly, users who used to buy the wood can save money to be used in alternative needs.	Decrease on amount of money needed to buy charcoal and decrease on amount of money and/or time spent to collect fuel and to cook.	+
Access to affordable and clean energy services		MDG 1 and MDG 7. The project activity does not include the change in traditional fuel consumption,	Number of beneficiaries using exclusively the project stove.	+

		since the improved cookstove keeps the use of charcoal or wood, depending on the location. Furthermore, the project aims to increase the access to cleaner cookstoves comparing to traditional cookstoves through subsidies to buy efficient cookstoves		
Human and institutional capacity		MDG 7. MozCarbon Initiatives aims to improve the knowledge of environmental and health issues related to the use of charcoal/biomass fuel for cooking. Workshops and awareness campaigns are organized and will continue to be organized by the project and those activities can increase human and institutional capacity.	The project activity does not directly affect the human and institutional capacity, so no parameters will be monitored.	0

Quantitative employment and income generation		MDG 1. The project created and will create jobs related to the distribution and monitoring of the improved cookstoves.	Number and types of jobs created.	+
Balance of payments and investment		MDG 1. With the clean cooking sector developing, it is likely to attract domestic and foreign investments to operate in the value chain (local production of improved stoves, marketing of stoves, stove testing for quality assurance, alternative fuels, consultancy in clean energy, carbon developers and others).	Amount of investment allocated to clean cooking value chain segments per year. Quantity of companies operating in the clean cooking value chain.	+
Technology transfer and technological self-reliance		MDG 4, 5 and 7. The cookstove promoters are trained and give training to the end user on how to use and keep the cookstove when they sell a cooking device. Therefore, the replacement of traditional cookstoves for	Number of workshops, seminars organized, and training-related opportunities held for external audience who would be directly involved in	+

		the efficient cookstoves will help to reduce child mortality, improve maternal health and ensure environmental sustainability.	replication of the technology	

Justification choices, data source and provision of references

A justification paragraph and reference source is required for each indicator, regardless of score

Air quality	The project will improve air quality due to a better combustion of biomass (wood and charcoal). This is important because, according to Global Alliance for Clean Cookstoves, the use of non-clean cooking technologies lead to 5,498,923 households being affected by IAP, close to 13000 deaths a year attributable to IAP, being 6373 children (Available at: http://bit.ly/2wKKA89) Figures from the WHO show a similar global pattern, being "over 4 million people die prematurely from illness attributable to the household air pollution from cooking with solid fuels." "More than 50% of premature deaths due to pneumonia among children under 5 are caused by the particulate matter (soot) inhaled from household air pollution." "3.8 million premature deaths annually from noncommunicable diseases including stroke, ischaemic heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer are attributed to exposure to household air pollution"(Available at: http://bit.ly/1m10zV0)
Water quality and quantity	Biomass fuel collection often entails walking long distances carrying heavy headloads that according to the way of transport can produce soil erosion. Furthermore, it can lead to a gradual deterioration of the local environment[15],

[15] The World Bank, 2011. *Household Cookstoves, Environment, Health, and Climate Change: A New Look at an Old Problem*. Available at: http://bit.ly/2se2yfX.

	which can affect the water quantity and quality. However, the water quality impact can be insignificant, indirect and therefore, difficult to attribute to the project. So, it was given a neutral score.
Soil condition	Although there will be a reduction of quantity of trees cut to produce charcoal or wood to use for cooking and therefore preventing soil erosion[16], this impact is indirect and to measure this attribute to the project is impossible/difficult. It was given a neutral score.
Other pollutants	No other significant pollutants were identified for this project.
Biodiversity	The deforestation rate is 0.58% a year in Mozambique due to different drivers and agents (Available at: http://bit.ly/2gtmMzi). Deforestation indicator is considered as neutral, even if the Project can somehow have a positive impact on this indicator, it is not feasible to attribute deforestation specifically as a result of the Project. The law and regulation of forests in Mozambique indicates clearly which species must be used for charcoal and wood (Available at: http://bit.ly/2gsDoHB). Assuming law enforcement works, it is unlikely that people will use other species for charcoal or wood thus, threatening biodiversity.
Quality of employment	According to GIZ (2016), it is suggested that the impact evaluation suggested that the intervention did not considerably affect employment but rather had a distinctive impact on income generation of entrepreneurs active in both the cook stoves and the pico-solar value chain we know little about the actual effects of in such as biomass scarcity, forest degradation, public health, and aggregated poverty and employment impacts. (Available at: http://bit.ly/2xujV3X).
Livelihood of the poor	It is expected that the project will reduce the amount of money people use to buy wood/charcoal, including reduction of time to collect firewood. The savings can be used in other household demands, improving the livelihoods of the poor.

[16] The World Bank, 2011. *Household Cookstoves, Environment, Health, and Climate Change: A New Look at an Old Problem*. Available at: http://bit.ly/2se2yfX.

	As an example, a regional study for Kenya, Uganda, Etiopia and Ruanda show that stoves has led to real financial savings for lower income groups. For this similar project is predictable that the same pattern will be verified. The same study shows that "in the case of Kenya and Ethiopia, the commercial success of improved stoves has led to poverty reduction amongst most people engaged in the improved stoves business. It has effected substantial positive livelihood changes (e.g., improved diet, improved health, improved housing, improved education) for the majority of those engaged in the business". (Available at: http://bit.ly/2fZOMKn)
Access to affordable and clean energy services	It is expected that the project will replace the traditional charcoal and wood stoves by improved stoves in Mozambique, increasing access to clean cooking energy devices and services. As a carbon project, it is expected that the stoves will be disseminated and purchased in an affordable price for the poor, thus allowing the majority to acquire an improved stove. Other methods will be used to facilitate access, including sales in installments. According to Global Alliance, 96% of population in Mozambique use solid fuels for cooking and 5 million households are affected by household indoor air pollution and will need to use an improved stove to tackle this problem (Available at: http://bit.ly/2wKKA89). Number and percentage of households using improved stoves will be quantified and monitored.
Human and institutional capacity	MozCarbon Initiatives aims to improve the knowledge of environmental and health issues related to the use of charcoal/biomass fuel for cooking. Workshops and awareness campaigns are organized and will continue to be organized by the project.
Quantitative employment and income generation	The project created and will create jobs related to the distribution and monitoring of the improved cookstoves. Number of jobs created either being direct and indirectly attributable to the project will be monitored.
Balance of payments and investment	With the clean cooking sector developing, it is likely to attract domestic and foreign investments to the improved stoves value chain (local production of improved stoves, marketing of stoves, stove testing for quality assurance, alternative fuels, consultancy services in clean energy, carbon asset developers and others).

Technology transfer and technological self-reliance	It is expected that households will replace old technologies with efficient stoves. This will also allow other parties to develop businesses under the improved stove value chain, working as producers, distributors, etc. The project will open space for technology improvements. Some of imported stoves constitute a great opportunity to share best technologies and practices within the stove sector.

Justification choices, data source and provision of references	
Air quality	The project will improve air quality due to a better combustion of biomass (wood and charcoal). This is important because, according to Global Alliance for Clean Cookstoves, the use of non-clean cooking technologies lead to 5,498,923 households being affected by IAP, close to 13000 deaths a year attributable to IAP, being 6373 children (Available at: http://bit.ly/2wKKA89) Figures from the WHO show a similar global pattern, being "over 4 million people die prematurely from illness attributable to the household air pollution from cooking with solid fuels." "More than 50% of premature deaths due to pneumonia among children under 5 are caused by the particulate matter (soot) inhaled from household air pollution." "3.8 million premature deaths annually from noncommunicable diseases including stroke, ischaemic heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer are attributed to exposure to household air pollution" (Available at: http://bit.ly/1m10zV0)
Water quality and quantity	Biomass fuel collection often entails walking long distances carrying heavy headloads that according to the way of transport can produce soil erosion. Furthermore, it can lead to a gradual deterioration of the local environment[17], which can affect the water quantity and quality. However, the water quality impact can be insignificant, indirect and therefore, difficult to attribute to the project. So, it was given a neutral score.
Soil condition	Although there will be a reduction of quantity of trees cut to produce charcoal or wood to use for cooking and therefore preventing soil

[17] The World Bank, 2011. *Household Cookstoves, Environment, Health, and Climate Change: A New Look at an Old Problem*. Available at: http://bit.ly/2se2yfX.

	erosion[18], this impact is indirect and to measure this attribute to the project is impossible/difficult. It was given a neutral score.
Other pollutants	No other significant pollutants were identified for this project.
Biodiversity	The deforestation rate is 0.58% a year in Mozambique due to different drivers and agents (Available at: http://bit.ly/2gtmMzi). Deforestation indicator is considered as neutral, even if the Project can somehow have a positive impact on this indicator, it is not feasible to attribute deforestation specifically as a result of the Project. The law and regulation of forests in Mozambique indicates clearly which species must be used for charcoal and wood (Available at: http://bit.ly/2gsDoHB). Assuming law enforcement works, it is unlikely that people will use other species for charcoal or wood thus, threatening biodiversity.
Quality of employment	According to GIZ (2016), it is suggested that the impact evaluation suggested that the intervention did not considerably affect employment but rather had a distinctive impact on income generation of entrepreneurs active in both the cook stoves and the pico-solar value chain we know little about the actual effects of in such as biomass scarcity, forest degradation, public health, and aggregated poverty and employment impacts. (Available at: http://bit.ly/2xujV3X).
Livelihood of the poor	It is expected that the project will reduce the amount of money people use to buy wood/charcoal, including reduction of time to collet firewood. The savings can be used in other household demands, improving the livelihoods of the poor. As an example, a regional study for Kenya, Uganda, Etiopia and Ruanda show that stoves has led to real financial savings for lower income groups. For this similar project is predictable that the same pattern will be verified. The same study shows that “in the case of Kenya and Ethiopia, the commercial success of improved stoves has led to poverty reduction amongst most people engaged in the improved stoves business. It has effected substantial positive livelihood changes (e.g., improved diet, improved health, improved housing, improved education) for the majority of those engaged in the business”. (Available at: http://bit.ly/2fZOMKn)

[18] The World Bank, 2011. *Household Cookstoves, Environment, Health, and Climate Change: A New Look at an Old Problem*. Available at: http://bit.ly/2se2yfX.

Access to affordable and clean energy services	It is expected that the project will replace the traditional charcoal and wood stoves by improved stoves in Mozambique, increasing access to clean cooking energy devices and services. As a carbon project, it is expected that the stoves will be disseminated and purchased in an affordable price for the poor, thus allowing the majority to acquire an improved stove. Other methods will be used to facilitate access, including sales in installments. According to Global Alliance, 96% of population in Mozambique use solid fuels for cooking and 5 million households are affected by household indoor air pollution and will need to use an improved stove to tackle this problem (Available at: http://bit.ly/2wKKA89). Number and percentage of households using improved stoves will be quantified and monitored.
Human and institutional capacity	MozCarbon Initiatives aims to improve the knowledge of environmental and health issues related to the use of charcoal/biomass fuel for cooking. Workshops and awareness campaigns are organized and will continue to be organized by the project.
Quantitative employment and income generation	The project created and will create jobs related to the distribution and monitoring of the improved cookstoves. Number of jobs created either being direct and indirectly attributable to the project will be monitored.
Balance of payments and investment	With the clean cooking sector developing, it is likely to attract domestic and foreign investments to the improved stoves value chain (local production of improved stoves, marketing of stoves, stove testing for quality assurance, alternative fuels, consultancy services in clean energy, carbon asset developers and others).
Technology transfer and technological self-reliance	It is expected that households will replace old technologies with efficient stoves. This will also allow other parties to develop businesses under the improved stove value chain, working as producers, distributors, etc. The project will open space for technology improvements. Some of imported stoves constitute a great opportunity to share best technologies and practices within the stove sector.

SECTION G. Sustainability Monitoring Plan[19]

[See Toolkit 2.4.3 and Annex I]

Copy Table for each indicator

[19] In case, DNH/SD assessment is done at the Programme level, SD monitoring parameters pertaining to SD aspects, safeguarding principles per technology/practice shall be provided. In case DNH/SD assessment is done at the activity level this section may not be filled.

No		1
Indicator		Air quality
Mitigation measure		Not relevant
Repeat for each parameter		Verification period
Chosen parameter		Change in presence of smoke and impacts on health and well- being.
Current situation of parameter		Households with traditional stoves report high smoke levels and possible incidence of respiratory illness.
Estimation of baseline situation of parameter		Possible health impact for traditional cookstoves users due to the presence of smoke inside the house.
Future target for parameter		Reduce the smoke exposure for cookstoves users.
Way of monitoring	How	Surveys on a sample group of stove users asking for the perceived change in presence of smoke and impacts on health and well- being.
	When	Every time a cookstove will be monitored
	By who	Monitoring agents of each VPA

No		2
Indicator		Quality of employment
Mitigation measure		Not relevant
Repeat for each parameter		Verification period
Chosen parameter		Description of working conditions: - Training of the staff involved with the project activities. The staff are trained for the distribution and to monitor the improved cookstoves. The training is carried out by MozCarbon Initiatives. The project proponent must provide the staff with the Social Security System, which includes health, pensions and labour risks.
Current situation of parameter		Staff working with Fundación Natura have received training by SENA
Estimation of baseline situation of parameter		Deficit in skilled labor for the project activity and precarious employment conditions.
Future target for parameter		Training of project staff
Way of monitoring	How	Attendee lists for training and capacity building for project staff carry out by the project proponent for each VPA. Documents that prove the affiliation to the Social Security System.

	When	Every time a cookstove will be monitored
	By who	Monitoring agents of each VPA

No		3
Indicator		Livelihood of the poor
Mitigation measure		Not relevant
Repeat for each parameter		Verification period
Chosen parameter		Money spent to buy fuel for cooking. Time spent to collect fuel.
Current situation of parameter		Households have a fix cost going toward fuel for cooking. Also, families that collect their wood fuel spend a lot of time per month on this activity and have to travel considerable distances to obtain it.
Estimation of baseline situation of parameter		Currently, households spend more money buying fuel due to higher fuel consumption using the traditional cookstoves. Therefore, savings from purchasing less fuel could be used for income-producing activities, education or other activities. Also, a reduction in the firewood demand due to the use of ICS will result in a decrease on the time spent to collect firewood.
Future target for parameter		Decrease the household monthly cost to buy fuel for cooking.
Way of monitoring	How	Reduction of fuel consumption with the improved cookstove, according to the Kitchen Performance Tests. This will be combined with surveys to clean cookstoves users asking for the perceived change in the cost and time spent cooking. Surveys will assess the reduction of the use of non-renewable energy.
	When	Every time a cookstove will be monitored
	By who	Monitoring agents of each VPA

No	4
Indicator	Access to affordable and clean energy
Mitigation measure	Not relevant
Repeat for each parameter	Verification period
Chosen parameter	Number of Beneficiaries using exclusively the project stove.

Current situation of parameter		Access to improved cookstoves through the efforts of the project proponent of each VPA
Estimation of baseline situation of parameter		Use of less efficient cookstoves
Future target for parameter		Increase the use of improved cookstoves
Way of monitoring	How	Unexpected surveys according to a random sampling. The agents will be checking if the baseline technology is still in use after the introduction of the improved technology or whether a new baseline technology is acquired and put to use by targeted end users during the project crediting period.
	When	Every time a cookstove will be monitored
	By who	Monitoring agents of each VPA

No		5
Indicator		Quantitative employment and income generation
Mitigation measure		Not relevant
Repeat for each parameter		Verification period
Chosen parameter		Number and types of jobs created.
Current situation of parameter		New staff hired specifically for the implementation of the project activity.
Estimation of baseline situation of parameter		Project proponent of each VPA without staff related to the project activities
Future target for parameter		Increase in the number of staff hired to implement the project activities
Way of monitoring	How	Contracts
	When	Every time a cookstove will be monitored
	By who	Monitoring agents of each VPA

No		6
Indicator		Technology transfer and technological self-reliance
Mitigation measure		Not relevant
Repeat for each parameter		Verification period

Chosen parameter		Number of people trained to promote the ICS and for monitoring purposes.
Current situation of parameter		Training is carry out every time a new project staff join the project team.
Estimation of baseline situation of parameter		Prior to the project the households had no or limited access to clean cookstoves, and had limited or no knowledge of this technology.
Future target for parameter		Increase in the number of people trained during the project implementation
Way of monitoring	How	The number of persons attending training sessions are recorded on a continual basis as and when trainings occur. The names of all attendees will be recorded and filed for reporting during annual monitoring.
	When	Annually
	By who	Project team

Continuous input mechanism

Additional remarks monitoring

NA

SECTION H. Additionality, conservativeness, inclusion criteria and other deviations[20]

This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

H.1. Additionality

[See Toolkit 2.3]

[20] Only for CDM PoAs

The additionality is discussed in the PoA-DD. Please, refer to document PoA-DD, section C.

H.2. Conservativeness

[See Toolkit 2.2]

The project will make sure to follow the Gold Standard principles on conservativeness for the different elements pf the project, which includes baseline evaluation, monitoring and emission reduction calculation. Therefore, the project commits to report conservative values during the project's lifetime.

H.3 Other deviations from CDM documentation (if applicable)

NA

ANNEX 1 ODA declaration

[See Toolkit Annex D]

The ODA declaration was already submitted to the Gold Standard in a previous submission.