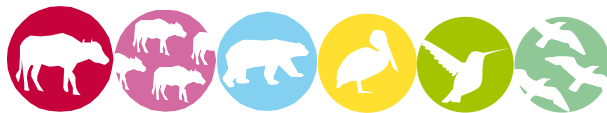


PROJECT GAIA COOK STOVE PROGRAMME OF ACTIVITIES - CPA0002 DJIBOUTI PASSPORT (GS4602)

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SECTION A. Project Title

Title: Project Gaia Cook Stove Programme of Activities - CPA0002 Djibouti (GS4602)

Date: 21/09/2015

Version no.: 0.1

SECTION B. Project description

The purpose of the CPA, under the **Project Gaia Cook Stove Programme of Activities (PG PoA)** is to displace the use of non-renewable biomass and fossil fuel for cooking in households through the distribution of energy efficient cook stoves powered by ethanol, a renewable energy source. The CPA is of the small-scale type falling under sectoral scope: Energy industries renewable/non-renewable sources.

The CPA will be implemented within the national boundary of Djibouti. Stove units distributed under this CPA will not exceed a total installed/rated capacity of 45MWth while individual stoves will have a rated capacity not exceeding 150 kWth.

Project Gaia Inc. will be the Coordinating/Managing Entity (CME) of the programme while the CPA implementer will be Gaia Association.

As the CPA implementer, Gaia Association will be responsible for the following:

- Ensure that the CPA is implemented.
- Operate and maintain the CPA for the duration of the project;
- Keep records of parameters as per the monitoring plan and provide hard and electronic records to the CME on a regular basis and provide the CME and DOE with required documents and access to stove users.
- Make available staff for validation and verification where applicable.

Besides reducing the green house gases the project will result in the following sustainable development benefits in line with the PG PoA.

Environmental Benefits

1. The programme will reduce deforestation and forest degradation in areas where non-renewable biomass is used as a source of fuel. This will contribute to the overall stability of forest ecosystems, which support biodiversity and maintain cultural and aesthetic value of forestlands.

Social-economic Benefits

1. The project will reduce indoor air pollution through reduced combustion of non-renewable biomass and fossil fuels in households/communities/SMEs. According to the WHO report on indoor air pollutions (2007)¹, toxic smoke from the combustion of firewood and fossil fuels is

¹ World Health Organization, Indoor Air Pollution: National burden of Disease Estimates. Geneva: WHO (2007)

responsible for a range of deadly chronic and acute health effects such as child pneumonia, lung cancer, chronic obstructive pulmonary disease, and heart disease, particularly for women and children who spend a large portion of their time near the fireplaces.

2. The project will also help to free time spent in search of wood fuel in places where non-renewable biomass is the fuel of choice. This will ensure that household members, particularly women have enough time to care for their children and attend to other responsibilities such as pursuing income-generating activities, education, leisure and rest. According to the Global Alliance for Cook Stoves² lack of access to cooking fuel forces women and children to spend many hours gathering firewood up to 5 hours per day or spend significant household income on fuel purchase.
3. The project will reduce the risks and danger faced by women and girls when collecting firewood for cooking. Women and girls are the primary collectors of firewood. The search for firewood exposes them to attack, rape and gender violence as they venture into unsafe territories.
4. The project will contribute to the national hydrocarbon balance by reducing the amount of kerosene imports for cooking purposes at the household level

The CPA will introduce measures that will reduce the emission of carbon dioxide through the displacement of fossil fuel and the use of non-renewable biomass. The CPA will involve the distribution of energy efficient cook stoves powered by ethanol to households for cooking purposes. The CME will work with the CPA implementers in the distribution of the stoves to the end-users.

The stoves to be distributed will have a higher efficiency compared to the baseline technology, which is composed of inefficient wood fuel cook stoves, and/or kerosene powered stoves. Emission reduction will therefore be achieved.

The stoves will be of the following specifications

1. Single Burner Stainless Steel Stove

- The stove is made out of stainless steel burner parts, body of stainless steel; galvanized steel and high quality enamel finish with one burner. The stove has an approximate lifetime of 10 years.
- Has a power rated capacity of 1.5KW per burner
- The stove burn using only ethanol
- Can burn 1 litre of ethanol in 4.5 hours under high power and 9 hours under low power
- Has only one burner for cooking
- Efficiency of the stove is greater than 60%

2. Double Burner Stainless Steel Stove

- The stove is made out of stainless steel burner parts, body of stainless steel, galvanized steel, and high quality enamel finish with double burner. The stove has an approximate lifetime of 10 years.
- Has a power rated capacity of 1.5kW per burner making a total of 3.0 kW its capacity
- Can burn 1 litre of ethanol in 4.5 hours under high power and 9 hours under low power
- Has only double burner for cooking
- Efficiency of the stove is greater than 60%

² <http://cleancookstoves.org/impact-areas/women/>; Accessed on 1 April 2015.

3. Single Burner Aluminium stove

- All stainless steel burner parts, body of aluminium, galvanized steel, aluminium. Single burner with a rated lifetime of 6 years
- Has a power rated capacity of 1.5KW per burner
- Can burn 1 litre of ethanol in 4.5 hours under high power and 9 hours under low power
- Efficiency of the stove is greater than 60%

4. Double Burner Aluminium Stove

- All stainless steel burner parts, body of aluminium, galvanized steel, aluminium. Double burner with a rated lifetime of 6 years
- Has a power rated capacity of 1.5KW per burner making a total of 3.0 KW its capacity
- Can burn 1 litre of ethanol in 4.5 hours under high power and 9 hours under low power
- Efficiency of the stove is greater than 60%

Figure 1 and Figure 2 below show typical stove types to be distributed under the CPA; Figure 3 shows the fuel canister.



Figure 1: Double burner stove



Figure 2: Single Burner stove



Figure 3: Ethanol fuel canister



Estimated project start date:

The first stoves under this CPA are expected to be distributed in December 2015.

SECTION C. Proof of project eligibility

C.1. Scale of the Project

Project Type	Large	Small
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

		<input type="checkbox"/>
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C.2. Host Country

The project will be implemented in Djibouti, which is a Non-Annex I³ country and eligible under the Gold Standard. Djibouti does not have a green house cap on it.

C.3. Project Type

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

³ http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php

Does your project activity classify as waste handling and disposal project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Please justify the eligibility of your project activity:

According to Gold Standard v2.2 rules, the eligibility of the project activity is defined by a number of aspects. The justification of the project eligibility criteria are discussed as follows:

Scale of the project activity: The Project Gaia Cook Stove Programme of Activities - CPA0002 Djibouti forms part of the Project Gaia Cook Stoves Programme of Activities. The CPA will distribute energy efficient cook stoves powered by ethanol, a renewable energy source. Individual cook stove units distributed under the CPA have a rated capacity of either 1.5kWth or 3.0 kWth depending on the specific model of a cook stove unit.

In accordance with the applicable CDM methodologies, *AMS-I.E: Switch from non-renewable biomass for thermal applications by the user* and *AMS-I.I: Biogas/biomass thermal applications for households/small users*, small-scale project activities should not exceed a capacity of 45MWth throughout the crediting period and individual units should not exceed a rated capacity of 150 KWth. It has already been demonstrated that individual units distributed under the CPA will be below a rated capacity of 150 KWth. Furthermore, the CPA will ensure that the cumulative capacity of all cook stove units distributed will not exceed 45MWth. The CPA is therefore considered as a small-scale project activity since it will remain within the small-scale thresholds. The project is also located in a Non-Annex I country with no GHG cap and is therefore eligible under the Gold Standard.

Type of project activity: The CPA falls under the renewable energy supply category defined as the generation and delivery of energy services (e.g. mechanical work, electricity, heat) from non-fossil and non-depletable energy sources. This classification is selected from the GS Toolkit V2.2 because the CPA involves the distribution of energy efficient cook stoves powered by ethanol, a renewable energy source, to users for cooking. Additionally, according to Gold Standard Annex C, the project activity classifies under the electricity and/or heat, and liquid biofuels from biomass resources.

Further eligibility criteria for biomass resources are discussed below:

Eligibility	Justification
Activities making use of non-renewable biomass resources shall not be eligible for Gold Standard registration. Project participants shall therefore provide convincing evidence that the project activities making use of renewable biomass resources. The criteria shall be monitored along crediting period and therefore be included in the sustainable monitoring plan.	<p>The CPA uses ethanol, a renewable energy source, derived from sugar molasses, a by-product of sugar processing.</p> <p>This requirement has been included as part of programme's applicability criteria that all CPAs must comply with. (See section B.2 and B.1 of the POA-DD and generic CPA-DD).</p> <p>The ethanol used for the cook stoves is considered renewable based on condition</p>

		<p>5 of EB 23 Annex 18 that states</p> <p><i>“Biomass is considered renewable if the biomass is from the non-fossil fraction of an industrial or municipal waste.”</i></p> <p>Following GS requirements this criteria shall be monitored during each CPAs crediting period and has been included in the sustainability monitoring plan.</p>	
	<p>Activities expected to make use of biomass resources already in use shall not be eligible for Gold Standard registration unless convincing evidence is provided showing that the current users are in agreement with the envisioned shift of use (potential leakage associated to such a shift must be taken into account). In the absence of such an agreement, Project Participants shall demonstrate that their project makes use of surplus biomass for each type of biomass resources used. They must do so one ex-ante on time for validation for small-scale activities, and in time for validation and for each one of the verifications (inclusions in the Sustainability Monitoring plan) for large-scale activities.</p>	<p>The CPA will not make use of biomass resources already in use. Sugar factories are the main source of molasses, the main raw material for ethanol production. A large amount of the molasses has been dumped in rivers or on land resulting in pollution. These molasses are now going to be put to better use through the production of ethanol. It can therefore be concluded that in the absence of the project, biomass used in the project activity was not used for other purposes.</p> <p>The CME also ensures that this requirement will be taken into consideration by all future CPAs included in the POA by including this to the applicability criteria provided in the CPA-DD in section D.2.</p>	
	<p>Project Participants shall demonstrate that their activity will only make use of degraded land and shall include this criterion in the Sustainability Monitoring Plan. Two exceptions may be considered: convincing evidence is provided showing that the envisioned energy crop is part of a traditional rotational cropping, or an increase of the productivity is obtained, locally and to the benefit of the current users, through measures implemented in the context of the activity so as to at a minimum compensate for the part of the land newly allocated to growing the energy crop. Compliance with these criteria above must be monitored over the crediting period and thus be part of</p>	<p>The CPA will involve the use of ethanol derived from molasses produced from sugarcane factory waste. The project activity is not and shall not be engaged in cultivation of biomass but shall instead purchase already manufactured ethanol primarily from sugar factories in Ethiopia.</p> <p>Monitoring to ascertain compliance with these criteria is therefore not required.</p>	

the Sustainability Monitoring Plan.	
Activities making use of GMOs shall declare so in a transparent way. Local stakeholders opinion on GMOs shall prevail and appropriate mitigation measures shall be put in place to address their concerns if any in a satisfactory way.	The CPA is not involved in the cultivation of biomass and does not involve any GMOs

Greenhouse gases: The project activity involves reduction of Carbon Dioxide gas (CO₂), which is one of the eligible gases under the Gold Standard as shown below:

Greenhouse gases		Greenhouse gas eligible under Gold standard	Greenhouse gas to be reduced by the project
CO2	Carbon dioxide	Yes	Yes
CH4	Methane	Yes	No
N2O	Nitrous oxide	Yes	No
PFCs	Perfluorocarbons	No	No
HFCs	Hydrofluorocarbons	No	No
SF6	Sulphur hexafluoride	No	No

Target area: The project will be implemented in the whole of Djibouti

Official Development Assistance: According to the GS rules, a project is not eligible under the Gold Standard registration if it receives ODA under the condition that credits coming out of the project are transferred, directly or indirectly, to the donor country requirements. The CPA has not received any ODA. This will be evidenced through an ODA declaration form.

Transfer of credit ownership: The carbon credits accrued from the use of the project stoves will be owned by Project Gaia Inc. who will subsequently use them for expansion of the project. The transfer of ownership of the credits will be done in a transparent and voluntary manner, which will be communicated via an end user transfer agreement. This end user agreement will have a paragraph that explains the transfer of ownership of the carbon credits.

Pre Announcement	Yes	No
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Was your project previously announced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Explain your statement on pre announcement		
The project was not previously announced to be going ahead without carbon revenue		

C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	<input checked="" type="checkbox"/>
Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

C.5. Project Registration Type

Project Registration Type	
Regular	<input checked="" type="checkbox"/>

	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
Pre-feasibility assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Retroactive, please indicate Start Date of project activity dd/mm/yyyy: _____

SECTION D. Unique project identification

D.1. GPS-coordinates of project location

Point	Latitude	Longitude
Point 1	12.7027917°	43.1283333°
Point 2	11.9765889°	43.3686444°
Point 3	11.4952556°	42.5572889°
Point 4	11.4617833°	43.2574694°
Point 5	10.9925278°	42.9671750°
Point 6	10.9889694°	41.7881194°
Point 7	12.4643583°	42.4083139°



Explain given coordinates

The coordinates indicate the boundaries of Djibouti within which the CPA will be implemented.

D.2. Map



SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

Assessment of all comments

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Gaia should also work on solar projects which can provide more benefits for Djibouti	No	Gaia is currently focusing on the distribution of ethanol cook stoves and may look into other alternatives like solar cook stoves in the future
You have to consult more institutions	Yes	<p>The project had invited a wide range of stakeholders during the design consultation phase of the project. These stakeholders were also invited to attend the LSC meeting.</p> <p>Additionally, there is another round of consultation called the stakeholder feedback round where the documentation on the project including the LSC report will be shared publicly and they can still provide any inputs that they might want to add at that stage.</p>
Emissions from the sugar factory are more compared to emissions produced from using charcoal and kerosene	No	The emissions are calculated using approved methodologies under the CDM and Gold Standard. These methodologies, if applicable, will determine the emissions from the production of ethanol in sugar factories as conservatively as possible.

<p>Gaia should set up an office in Djibouti City for easy physical access incase of any inquiry on their products.</p>	<p>Yes</p>	<p>Before the commencement of the distribution of the stoves in Djibouti households, Gaia will have an office and a distribution center in Djibouti where grievances and any other concern about the products will be tackled when they arise. For refugee camps, Gaia is working with the Ministry of Environment to collaborate with them and the UNHCR in the distribution of the stoves to the refugees.</p>
<p>The Government should be more involved in the planning of the roll out of the project, as this is a new technology.</p>	<p>Yes</p>	<p>Before the project can be rolled out in Djibouti Gaia will have to meet the requirements set by the Government of Djibouti and get the approval of the various government entities involved in such projects.</p>

Comment on ownership of carbon credits

Comment

Who will support the project in Djibouti?

Response

Gaia will establish an office in Djibouti for its distribution purpose and will ensure that it meets the necessary statutory requirements in Djibouti before they distribute the stoves to Djiboutian households. Gaia will establish a contact center in Djibouti for the same. The UNHCR and the Ministry of Environment will help Gaia in the project activities at the refugee camp. Gaia will own the credits that will be accrued from the use of the stoves and through this the project will be expanded to many other end-users in the country by subsidizing the stoves.

Summary of alterations based on comments

No aspect of the project is to be modified since none of the stakeholder comments warrant such alterations of the project.

E.2. Stakeholder Feedback Round

At the time of writing this CPA passport, the stakeholder feedback round had not yet taken place. However, the implementation plan of the stakeholder feedback round will be carried out once a review of the LSC report is completed and approved by the Gold Standard.

Once the LSC report has been submitted to the GS registry and approved, copies of these documents will be made publicly available on the website of the carbon consultant (www.carbonafrica.co.ke) and on Project Gaia website (www.projectgaia.com) and also made publicly accessible in the GS registry. All stakeholders invited to the LSC as well as relevant GS supporters will be informed via email and or telephone. Copies of these documents will also be made available upon request from the project developer.

Upon receipt of further questions or clarifications of how stakeholder comments were taken into consideration, an appropriate response will be provided. Should any of the comments require revision of the GS documentation, this will be done prior to end of validation of the project.

E. 3. Discussion on continuous input / grievance mechanism

The Continuous Grievance Mechanism was discussed as follows for Djiboutian households:

Continuous input / grievance mechanism for users

	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	A book shall be placed at every distribution/sales Centre of the stoves once Gaia establishes a distribution center in Djibouti	By placing the book at the distribution/sales office the end users can easily write down their grievances and any inputs they may have. Gaia will check this book continuously.
Telephone access	The telephone number of the project supervisor shall be provided once the project begins its operations in Djibouti and establishes a contact center. Currently, the contact person for Gaia is: Wubshet Tedele based in Ethiopia: Tel no: +251116183540	Gaia Association will have a project supervisor in Djibouti who will be responsible for the project operations in Djibouti
Internet/email access	The email address of the project supervisor shall be provided once the project begins its operations in Djibouti Currently, the contact person for Gaia is: Wubshet Tedele based in Ethiopia: Email: wubshet.t.tsehayu@gmail.com Gold Standard Regional Manager: johann.thaler@goldstandard.org General Gold standard: info@goldstandard.org	Gaia Association will have a project supervisor in Djibouti who will be responsible for the project operations in Djibouti
Nominated Independent	The stakeholders saw no need for an independent mediator	

Mediator (optional)		
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SECTION F. Outcome Sustainability assessment

F.1. 'Do no harm' Assessment

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
Human Rights			
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 does not violate internationally proclaimed human rights. All participants are involved voluntarily, and the project adheres to the host country's commitment to the Universal Declaration of Human Rights (UDHR) and respect all human rights.	Low	Not needed.
The project does not involve and is not complicit in involuntary resettlement.	The proposed project does not involve and is not complicit in any resettlement, voluntary or involuntary.	Low	Not needed.
The project does not involve and is not complicit in the alteration, damage, or removal of any critical cultural heritage.	The project will not alter, damage or remove tangible property and sites having archeological, paleontological, historical, cultural, artistic, religious or	Low	Not needed.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
	cultural values. It will also not alter, damage or remove intangible forms of culture, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.		
Labour Standards			
The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights.	The project will not violate its employees' freedom of association and right to collective bargaining. The employees' are accorded freedom to associate with anyone of their choice and their right of collective bargain is entrenched in Djibouti's labour laws. Djibouti has signed ILO convention 98 ⁴ (right to organise and collective bargaining) and ILO convention 87 ⁵ (freedom of association).	Low	Not needed.
The project does not involve and is not complicit in any form of forced or compulsory labour	The project will not involve any forced labour and all employee services will be offered on a voluntary basis. In 1978, Djibouti ratified to ILO conventions 29 ⁶	Low	Not needed.

⁴ International Labour Organization- *Right to Organize and Collective Bargaining Convention*: Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312243:NO

⁵ International Labour Organization- *Freedom of Association and Protection of the Right to Organise Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312232:NO

⁶ International Labour Organisation- *Forced Labour Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312174:NO

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
	and 105 ⁷ on forced labour		
The project does not employ and is not complicit in any form of child labour.	The project activity will not employ anyone below the age of 18 nor be complicit in any form of child labour, all those employed by the project will be adults who are voluntarily engaging in support of the project through legal employment. In 2005, Djibouti ratified to ILO conventions 138 ⁸ (minimum age) and 182 ⁹ (worst form of child labour) and has legislation in place for national enforcement.	Low	Not needed.
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 does not discriminate against individuals and employment of staff is not based on gender, race, religion, and sexual orientation or on any other basis. Djibouti has signed ILO conventions 100 ¹⁰ (equal remuneration) and 111 ¹¹ (discrimination in employment/occupation)	Low	Not needed.

⁷ International Labour Organisation- Abolition of Forced Labour Convention. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312250:NO

⁸ International Labour Organisation- *Minimum Age Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312283:NO

⁹ International Labour Organisation- *Worst Forms of Child Labour Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312327:NO

¹⁰ International Labour Organisation- *Equal Remuneration Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312245:NO

¹¹ International Labour Organisation- *Discrimination (Employment and Occupation) Convention*. Available at:

http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312256:NO

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
	and has enacted legislation under the Constitution of Djibouti for such, which is enforceable nationally.		
The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe and unhealthy work environments.	<p>The project will ensure the safety of the workers involved in the distribution of the cook stoves and ethanol as well as the safety of the cook stove users handling the ethanol. This is ensured through training the users on proper use of the stoves and ethanol.</p> <p>The project does not involve any work that has the potential to expose workers to unhealthy work environments or which are hazardous and potentially dangerous</p>	Low	<p>Customers are trained on safety of operation of the cook stoves during commissioning and maintenance visits.</p> <p>Safety features of the cook stoves include a non-pressurized fuel tank that avoids spillage and a simple regulator to control the flame when in use.</p>
Environmental Protection			
The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle. The principle can be defined as: "When an activity raises threats of harm to human health or the environment,	The project activity entails the utilization of ethanol from sugar factories. The project activity (using ethanol powered cook stoves) does not involve planting, agricultural or similar activities, invasive species that are likely to cause harm. It does not also involve production of chemicals that are excessively dangerous to the environment. The	Low	Not needed.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
precautionary measures should be taken if some cause and effect relationships are not fully established scientifically.”	project activity will not produce hazardous waste. The use of ethanol for cooking will reduce dangerous smoke and gases therefore being beneficial to the environment.		
The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, 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	The use of ethanol for cooking will reduce the demand for firewood and charcoal and subsequently this will reduce deforestation in the areas around refugee camps.	Low	Not needed.
Anti corruption			
The project does not involve and is not complicit in corruption.	The project is not prone to corruption opportunities and is not involved or complicit in corruption. All transactions will be recorded and carried out in a transparent and traceable manner. Djibouti is a signatory to the UN Convention	Low	Not needed.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
	against Corruption. The Law on the prevention and combating of Corruption in Djibouti will be adhered to ¹² .		

F.2. 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	<u>Negative impact:</u> score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated <u>No change in impact:</u> score '0' <u>Positive impact:</u> score '+'
Air quality	No mitigation	MDG 7: Ensure	Parameter	+

¹² <http://www.undp-aci.org/resources/ac/legal.aspx?lc=1>

	measure required	environmental sustainability	<p>– Number of stoves sold</p> <p>Explanation</p> <p>The use of ethanol for cooking will reduce the amount of air pollution compared to when other fuels such as kerosene and firewood are used.</p> <p>The number of stoves sold translates to increased use of ethanol and therefore less air pollution.</p>	
Water quality and quantity	No mitigation measure required	MDG 7- Ensure Environmental Sustainability	<p>The use of less firewood would result in the preservation of water catchments.</p> <p>The number of stoves sold would imply that the use of wood fuel has decreased among the end users of the technology, leading to more forests being preserved and therefore resulting in conservation of water</p>	0

			<p>catchment areas.</p> <p>However, this effect would be difficult to measure and it is scored as neutral</p>	
Soil condition	No mitigation measure required	MDG 7: Ensure environmental sustainability	<p>By saving forests where fewer trees are cut down for firewood, the soil condition in forest areas is improved.</p> <p>However, there are many other factors that play a role in the soil condition and the project cannot be exclusively linked to the improvement of the soil condition.</p> <p>Because of this, the indicator is scored as neutral.</p>	0
Other pollutants	No mitigation measure required	No "other pollutant" has been identified that is of relevance to the project activity.	No other pollutants associated with the project activity or the use of ethanol for cooking was identified.	0
Biodiversity	No mitigation measure required	MDG 7: Ensure environmental	Where fewer trees are cut	0

		sustainability	<p>down for use as firewood or charcoal, more plant species and the ecosystems they support are preserved.</p> <p>However it is hard to support the notion that a quantifiable amount of biodiversity shall be preserved by the introduction of the project and thus this indicator is scored as '0'</p>	
Quality of employment	No mitigation measure required	MDG 1: Eradicate extreme poverty and hunger	<p>Parameter:</p> <ul style="list-style-type: none"> – Number of employees trained and issued with certificates <p>Explanation:</p> <p>By ensuring that project employees are trained periodically on providing better services to the stove users, the project will have equipped the employees with adequate skills to carry out their duties</p>	+

			effectively.	
Livelihood of the poor	No mitigation measure required	MDG 1: Eradicate extreme poverty and hunger	The use of ethanol reduces the amount of kerosene that is used for cooking. As a result more money may be available to households from the avoidance of kerosene use. However, this may not significantly affect the general livelihoods of the households in Djibouti. Thus, this indicator is scored as neutral.	0
Access to affordable and clean energy services	No mitigation measure required	MDG 1: Eradicate extreme hunger and poverty MDG 4: Reduce child mortality MDG 5: Improve maternal health MDG 7: Ensure environmental sustainability	Parameter – Number of stoves sold Explanation Through the project, a clean fuel for cooking will be made available as an alternative to kerosene and charcoal.	+
Human and institutional capacity	No mitigation measure required	MDG 1: Eradicate extreme poverty and hunger	Parameter 1: – Number of trainings carried out	+

		MDG 3: Promote gender equality and empower women.	<p>by the project developer</p> <ul style="list-style-type: none"> – Number of women employed by the project. <p>Explanation</p> <p>The project will offer training to the end-user population in order to equip them with the necessary knowledge of how the technology works.</p> <p>Capturing the number of women employed by the project will show that the project has contributed positively to the improvement of human institutional capacity, particularly women.</p>	
Quantitative employment and income generation	No mitigation measure required	MDG 1: Eradicate extreme poverty and hunger	<p>Parameter:</p> <ul style="list-style-type: none"> – - Number of project employees <p>Explanation</p> <p>The project will create new employment opportunities in Djibouti and</p>	+

			therefore Gaia should be able to maintain records of people employed for the project within Djibouti	
Balance of payments and investment	No mitigation measure required	MDG 8: Develop a global partnership for development	Despite the benefits that the project will offer, it is not likely to attract domestic investment as the use of ethanol cook stoves is not part of the Government's strategy	0
Technology transfer and technological self-reliance	No mitigation measure required	MDG 8: A global partnership in Development.	<p>Parameters</p> <ul style="list-style-type: none"> – Number of stakeholder sensitization meetings – Number of training sessions for end users <p>Explanation</p> <p>The project will bring in a new stove technology to the country.</p> <p>Capturing the number of workshops and stakeholder sensitization meetings</p>	+

			carried out will show how the project has translated to technology transfer and technological self reliance
Justification choices, data source and provision of references			
Air quality	<p>About 1.3 million people die prematurely every year because of exposure to indoor air pollution from biomass¹³. The majority of those exposed are women, who are normally responsible for food preparation and cooking, and infants/young children who are usually with their mothers near the cooking area.</p> <p>According to the Global Alliance for Clean Cookstoves, over 40% of the world's population cooks with open fires inside their homes, using biomass like wood and charcoal as cooking fuel¹⁴. Poor indoor air quality is a recognized risk factor for acute respiratory infections in children and a known risk factor for respiratory diseases in adults¹⁵.</p> <p>The use of ethanol cook stoves will reduce the levels of air pollution from particulate matter and carbon monoxide to levels below WHO guidelines¹⁶.</p>		
Water quality and quantity	<p>The interactions between forests and water and the benefits of forests for water supply are multiple. Through the stabilisation of soils, forests minimize erosion and hence reduce the impairment of water quality due to sedimentation. Deforestation will increase, as more wood for fuel is needed, accelerating erosion and leaching and increasing water pollution.</p> <p>Water availability is the main hindrance to agricultural productivity and livelihood security in Djibouti. Water availability also contributes to developing agro-pastoral systems highly resilient to increasing climate and rainfall</p>		

¹³ International Energy Agency Report (2010): *Energy For Cooking In Developing Countries*

¹⁴ Global Alliance for Clean Cookstoves. *Cookstoves and Non-Communicable Diseases [Online]*. Available at: <http://www.cleancookstoves.org/resources/fact-sheets/cookstoves-and-disease-1.pdf> [Accessed: 19 October 2013]

¹⁵ Smith K, Samet J, Romieu I, Bruce N. (2000): *Indoor air pollution in developing countries and acute respiratory infections in children*. Thorax, 55: 518-532.

¹⁶ Pennise, D., et al. Indoor air quality impacts of an improved wood stove in Ghana and an ethanol stove in Ethiopia. Energy for Sustainable Development [online]. Elsevier. June 2009, vol. 13(2). Available from: <https://cleancookstoves.org/binary-data/RESOURCE/file/000/000/91-1.pdf>

	<p>variability. As a result of Djibouti's harsh arid and semi-arid climate, water in the country is very scarce¹⁷. Many people face diseases and health problems, often caused by poor sanitation and a shortage of clean water. According to UNICEF, more than 49% of people in the rural areas in Djibouti do not have access to a protected source of drinking water¹⁸.</p>
Soil condition	<p>Inappropriate land use activities like deforestation often cause changes in the soil condition, which in turn contributes to soil erosion. Soil health and maintenance of soil fertility are of vital importance for the people of Djibouti and for the country's agricultural production and economy. Land degradation is a serious problem and is a key barrier to achieve sustainable agricultural yields¹⁹</p> <p>The introduction of ethanol as an alternative source of energy for firewood and charcoal will reduce the cutting down of trees and prevent loss of vegetation cover thereby protecting the soil condition essential for farm productivity. In Djibouti, vegetation cover is significantly less than in the past, partly due to climate change (it has become hotter and drier), and also due to the impact of human activities like felling trees for wood fuel and overgrazing by the pastoralists²⁰.</p>
Other pollutants	<p>No other pollutants resulting from the project activity have been identified.</p>
Biodiversity	<p>Deforestation leads to the loss of plant species as well as animal species that lose their habitats²¹. The introduction of ethanol fuel as an alternative to firewood and charcoal will help in conservation of forests and the diversity of biological resources and processes available for future generations within the project boundary. According to Djibouti's National Biodiversity Strategy and Action Plan, the principal issues to be addressed include alleviation of advanced degradation caused by anthropogenic pressures like deforestation²².</p>

¹⁷ UNDP (2013): *Environment and Energy- Djibouti Project Brief*. Available at: http://www.undp-alm.org/sites/default/files/downloads/projectbrief_-_djbouti-af_-_march2013.pdf

¹⁸ UNICEF (2011). *Crisis in the Horn of Africa. Humanitarian Action Update*: Available at: <http://www.mercyworld.org/uploads/projects/125-2614bb54/userassets/files/2176%20Horn%20of%20Africa%20Emergency.pdf>

¹⁹ Berry, L., 2003, Land degradation in Djibouti: its Extend and Impact. ftp://ftp.fao.org/agl/agll/ladadocs/DJIBOUTI_LD_CASE_STUDIES.doc

²⁰ USAID/REDSO (2005). Appendix A. *Djibouti Environmental Analysis: Tropical Forests, Biodiversity and Environmental Management*. http://pdf.usaid.gov/pdf_docs/pa00jx75.pdf

²¹ FAO (2001): *State of the World's Forests*: www.fao.org/docrep/fao/003/y0900e/y0900e00.pdf

²² Ministry of Housing, Urbanisation and Environment. (2006) *National Biodiversity Strategy Action Plan* <https://www.cbd.int/doc/world/dj/dj-nbsap-01-fr.pdf>

Quality of employment	Unemployment remains the crucial social and economic challenge for Djibouti. The rate of unemployment is estimated at 60% of the total population and 90% of youths, 15 to 24 years of age, are unemployed ²³ . The project activity will lead to training and employment of staff members and artisans during the distribution and maintenance phases within the project boundary.
Livelihood of the poor	<p>A household survey conducted in Djibouti showed that poverty has affected 74.4% of the population, 42.2% of who were in a situation of extreme poverty²⁴.</p> <p>The project activity will provide clean and efficient household cooking solutions. Ethanol cookstoves will appreciably reduce indoor air pollution. Most of the victims of indoor air pollution are women and children and they are prone to respiratory health complications as a result of this. In addition, the amount of time and money spent gathering firewood or preparing charcoal will be freed for childcare, education or income-generating activities.</p> <p>Consequently, the project activity will protect women and girls from exposure to risks associated with firewood collection and use of kerosene stoves. It will also raise awareness of the health risks associated with cooking using non-renewable fuels.</p>
Access to affordable and clean energy services	<p>In developing countries, especially in rural areas, 2.5 billion people rely on biomass to meet their energy needs for cooking. This number is expected to increase to over 2.7 billion by 2030 because of population growth.²⁵</p> <p>According to Djibouti Multiple Indicators Survey, over 80% of Djibouti's households use kerosene for household needs, but its high cost remains a factor limiting access on the part of poor households, for which firewood constitutes the substitute energy source, primarily in rural areas and in nomad encampments²⁶.</p> <p>Ethanol as an alternative to firewood, charcoal and fossil fuels is an efficient and clean source of energy that will reduce indoor air pollution.</p>
Human and institutional capacity	Despite legal efforts and creation of a Ministry for the Promotion of Women and Family Planning in 2008, major gender disparities remain in literacy and access to jobs.

²³ International Monetary Fund (2013) *Country Report: Djibouti* <http://www.imf.org/external/pubs/ft/scr/2013/cr1378.pdf>

²⁴ National Initiative for Social Development (INSD). *Poverty Reduction Strategy Paper (PRSP)*

²⁵ IEA Report: *Energy For Cooking In Developing Countries* (2010).

²⁶ Ministère de la Santé République de Djibouti (2006) *Enquête Djiboutienne à Indicateurs Multiple (EDIM)*
http://www.who.int/fctc/reporting/party_reports/djibouti_annex1_mics_report_2006_fr.pdf

	<p>Wide gender disparity persists, with only 39.5% of women literate in 2012 compared with 60.1% of men²⁷. Djibouti's Human Development Index (HDI) value for 2013 is 0.467— which is in the low human development category— positioning the country at 170 out of 187 countries and territories²⁸</p> <p>Introduction of the ethanol cook stoves project will train and employ both men and women who will in return earn income to provide for their basic needs.</p>
Quantitative employment and income generation	<p>The project activity will train and employ local individuals during the distribution and maintenance phases of the ethanol cook stoves. This will lead to an increase in the number of jobs within the project boundary and generation of income for those employed. This income will be useful for meeting basic needs and improving their livelihood.</p>
Balance of payments and investment	<p>Djibouti is a country with few resources and recognizes the crucial need for foreign investment to stimulate economic development and support its balance of payments. Djibouti has an estimated annual real GDP growth rate of 5% and inflation is not a concern, due to the fixed tie of the Djiboutian franc to the US dollar (177.7 Djibouti Francs: 1 US dollar²⁹. Foreign direct investment totalled 21% of Djibouti's GDP in 2012.</p>
Technology transfer and technological self-reliance	<p>The project activity will involve training of local individuals on the distribution and maintenance of the ethanol cook stoves. The stoves recipients will also get trained on safety measures in handling and operating the cook stoves and ethanol. The ethanol cook stoves will replace woody biomass and/or fossil fuels within the project boundary. Ethanol cook stoves are efficient and provide clean energy with no emission of green house gases and particulate matter. The technical design of the ethanol cook stoves makes it safe and easy to operate.</p>

²⁷ Africa Development Bank (2014) *African Economic Outlook: Djibouti*

²⁸ UNDP (2013) *Human Development Index Trends: Djibouti*. Accessed at: <http://hdr.undp.org/en/countries/profiles/DJI>

²⁹ World Trade Organization (2014). *Trade Policy Review of Djibouti*. https://www.wto.org/english/tratop_e/tpr_e/s305_e.pdf

SECTION G. Sustainability Monitoring Plan

No	1	
Indicator	Air quality	
Mitigation measure	Mitigation not required	
<i>Repeat for each parameter</i>		
Chosen parameter	Number of ethanol cook stoves sold and still in operation	
Current situation of parameter	In the current situation, households use wood fuel and kerosene for cooking purposes. These fuels when used produce carbon monoxide and particulate matter, which are pollutants that affect the human respiratory system.	
Estimation of baseline situation of parameter	<p>In the baseline scenario, the households use firewood and charcoal for cooking purposes. This causes indoor air pollution, which affects the respiratory health of women and children in households.</p> <p>With the introduction of ethanol cook stoves, the use of a cleaner fuel for cooking will will reduce the amount of air pollution and thereby improve the air quality.</p>	
Future target for parameter	By more people embracing the use of the ethanol powered stoves there will be less air pollution and an overall improvement in the air quality within households.	
Way of monitoring	How	Monitoring the number of ethanol powered cook stoves sold
	When	At point of sale
	By who	CME

No	6	
Indicator	Quality of employment	
Mitigation measure	No mitigation measure required	
<i>Repeat for each parameter</i>		
Chosen parameter	Number of project employees trained and issued with	

		certificates and number of training workshops carried out.
Current situation of parameter		The rate of unemployment is estimated at 60% of the total population and 90% of youths, 15 to 24 years of age, are unemployed.
Estimation of baseline situation of parameter		Following a historical check of ethanol cook stoves in Djibouti, there are no trained personnel equipped with skills to offer maintenance services or provide training to stove recipients on safe handling and operation of ethanol cook stoves
Future target for parameter		Through training held for the staff members by the project developer, more knowledge and skills will be imparted leading to a more competent work force. Directly, the project will result in more people getting income by being employed by Gaia.
Way of monitoring	How	Number of employees trained and issued with certificates.
	When	During trainings.
	By who	CME

No	8
Indicator	Access to affordable and clean energy services
Mitigation measure	No mitigation measure required
<i>Repeat for each parameter</i>	
Chosen parameter	Number of ethanol cook stoves distributed
Current situation of parameter	Currently there aren't any projects that make use of ethanol cook stove technology that is to be introduced by Gaia. Most households in Djibouti depend on wood fuel for their cooking needs
Estimation of baseline situation of parameter	As most of the households depend on kerosene and wood fuel for their cooking needs there is a lot of indoor air pollution through emission of greenhouse gases and particulate matter that cause respiratory health problems.
Future target for parameter	The project activity will introduce the use of ethanol fuel for cooking, which is a clean source of energy. This will improve indoor air quality and prevent unsustainable harvesting of forest resources. Continual implementation of the project will allow more people to adopt the technology, which focuses on the use of a

		renewable source of energy. With more purchases the stoves will become more affordable to households.
Way of monitoring	How	The CME will maintain a stove distribution record
	When	Annually
	By who	CME

No	9
Indicator	Human and institutional capacity
Mitigation measure	No mitigation measure required
<i>Repeat for each parameter</i>	
Chosen parameter	Number of women employed by the project.
Current situation of parameter	<p>Wide gender disparity persists, with only 39.5% of women literate in 2012 compared with 60.1% of men³⁰. Djibouti's Human Development Index (HDI) value for 2013 is 0.467—which is in the low human development category—positioning the country at 170 out of 187 countries and territories³¹</p> <p>Additionally, the rate of unemployment in Djibouti is felt mostly by women where it is 68.5% compared to men at 54.5%³².</p>
Estimation of baseline situation of parameter	<p>Women and children are the primary collectors of firewood. The search for fuel exposes women and girls to attacks, rape and gender violence as they venture into unsafe territories.</p> <p>The ethanol cook stove project activity will protect women and girls from exposure to risks associated with firewood collection. It will also raise awareness of the health risks associated with cooking using non-renewable fuels. The time spent in gathering wood fuel is freed for childcare, education or income-generating activities.</p> <p>In addition, the project will employ both men and women who will in return earn income from the implementation of the project to meet their basic needs.</p>
Future target for parameter	More women will be employed as the project continues to be implemented

³⁰ Africa Development Bank (2014) *African Economic Outlook: Djibouti*

³¹ UNDP (2013) *Human Development Index Trends: Djibouti*. Accessed at: <http://hdr.undp.org/en/countries/profiles/DJI>

³² UNICEF. *Situation in Djibouti: Human Development*. Accessed at: http://www.unicef.org/djibouti/overview_3604.html

Way of monitoring	How	Employment records indicating the gender distribution
	When	Annually
	By who	CME

No	10	
Indicator	Quantitative employment and income generation	
Mitigation measure	No mitigation measure required	
<i>Repeat for each parameter</i>		
Chosen parameter	Number of people employed by the project.	
Current situation of parameter	Currently the rate of unemployment in Djibouti stands at 60% of the total population and 90% of youths, 15 to 24 years of age, are unemployed.	
Estimation of baseline situation of parameter	<p>Unemployment has remained a challenge for Djibouti's socio-economic development. With a population growth rate of 1.5%³³, the labor force has continued to grow faster than what the economy can gainfully and productively employ.</p> <p>The project activity will lead to training and employment of local staff and artisans to be deployed during the distribution and maintenance phases of the project activity.</p>	
Future target for parameter	With the implementation of the project more people will be employed leading to a reduction in the unemployment rate and increased income through salaries.	
Way of monitoring	How	Employment records
	When	Annually
	By who	CME

No	12	
Indicator	Technology transfer and technological self-reliance	
Mitigation measure	No mitigation measure required	
Chosen parameter	Number of stakeholders sensitization meetings & Number of	

³³ The world Bank (2013) *Population Growth Database: Djibouti*

		training sessions for end users
Current situation of parameter		
Estimation of baseline situation of parameter		<p>In the absence of the project activity, firewood, charcoal and kerosene fuels are used for cooking purposes. The introduction of more efficient and affordable ethanol fuel is a new technology that will be embraced by many households.</p> <p>Stakeholders will be trained on the relevance of the project and its contribution to the sustainable development of the region. These sensitization meetings will raise awareness and hence a larger population will embrace the technology over time.</p> <p>A group of individuals will also receive training to gain skills and knowledge on distribution, safe handling, operation and maintenance of the ethanol cook stoves.</p>
Future target for parameter		
Way of monitoring	How	Records of stakeholders meetings and training sessions
	When	Annually
	By who	CME

Additional remarks monitoring

Monitored parameter for Gold Standard Eligibility	
No	For Gold Standard Eligibility
Indicator	Use of renewable biomass by the project
Mitigation measure	No mitigation measure required
<i>Repeat for each parameter</i>	
Chosen parameter	Number of stoves sold and still in operation
Current situation of parameter	
Estimation of baseline situation of parameter	At present, households make use of non-renewable biomass resources in the form of firewood and charcoal for cooking purposes
Future target for parameter	The ethanol-powered stoves will make use of ethanol derived from molasses, a by-product of sugar processing ³⁴ . According to the definition of renewable biomass from EB 23 Annex 18, ethanol is considered as renewable biomass under condition

³⁴ Ashden Awards Case Study pg. 5

		5 which states <i>“Biomass is considered renewable if the biomass is from the non-fossil fraction of an industrial or municipal waste”</i>
Way of monitoring	How	Number of stoves sold and still in operation
	When	Annually or Biennially
	By who	CME

SECTION H. Additionality and conservativeness

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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

The CPA/project will prove additionality using the *Tool for demonstration additionality of small-scale project activities* (version 10.0)

In line with paragraph 11 of the Methodological tool: *Demonstration of additionality of small-scale project activities Version 10.0*, documentation of barrier is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW).

Distribution of cook stoves to households/ communities/SMEs forms part of the positive list in accordance with paragraph 2(c) which states that:

“Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds”

The cumulative capacity of the total number of cook stoves that are expected to be distributed under this CPA will be less than 5% of the small scale CDM thresholds as explained in the CPA-DD.

H.2. Conservativeness

For conservativeness purposes Baseline emissions and overall emission reductions were calculated based on approved CDM methodology *AMS-I.E 'Switch from non-renewable biomass for thermal application by the user' version 06.0* and *AMS-I.I 'Biogas/biomass thermal applications for households/small users' version 04.0* which are among the methodology permitted by the Gold Standard.

ANNEX 1 ODA declaration

According to the GS rules, a project is not eligible under the Gold Standard registration if it has received or benefited from ODA under the condition that credits coming out of the project are transferred, directly or indirectly, to the donor country providing ODA assistance. The CPA has not received any ODA. This will be evidenced through submission of a signed ODA declaration form.