



CODE OF SUSTAINABLE PRACTICE

For the value chain of ethanol stove program in Madagascar

Abstract

Outline the requirements of all project participants to ensure that the program has minimal negative impact the environment or society

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Sources and references:

The code of sustainable practice is based on the from the following reference sources:

1. BUNSUCRO <http://www.bonsucro.com>
2. Brazilian Sugar Cane Industry Association <http://sugarcane.org/sustainability>
3. UNFCCC General Guidelines on leakage in biomass projects
https://cdm.unfccc.int/Reference/Guidclarif/ssc/methSSC_guid04.pdf
4. Decree – Law of Madagascar on 2013-013

Part of the value chain to be certified

A separate certification report shall be prepared for each of or 3 main components in the ethanol value chain, including

1. Distillery and feedstock supply
 - a. A certificate confirming that the micro distillery is expected to be in compliance with the Code of Sustainable Practice. To be issued prior to start of construction of any micro distillery to be included in the program.
 - b. A certificate confirming that the micro distillery is in compliance with the Code of Sustainable Practice. To be issued after commissioning of the micro distillery.
2. Local Project Implementation Partners and retailers

Guiding principle

The process of certification of compliance with the Code of Sustainable Practice shall cause as little harm as possible. The certification process shall not restrict the expansion of the program, or contribute to unnecessary cost that will reduce the profit of partners in the value chain, and thereby reduce the rate of expansion of the program.

In addition to certifying compliance with the Code of Sustainable Practice, the certifier shall provide assistance and advice on how the partners can comply with Code of Sustainable Practice.

The process of Certification of Sustainable Practice aim to encourage all parts of the value chain to improve their practices to achieve a degree of Sustainable Practice that is higher than the minimum requirement for certification. In doing so, the certifier will provide recommendations for improvements beyond what is required for compliance with the Code of Sustainable Practice.

Certification Process

1. Identification of project activity that seek certification of compliance with the Code of Sustainable Practice
2. Submit the Code of Sustainable Practice to the project participating, and schedule site visit for compliance check. The certifier shall then inform the project participant about the process of what will be checked and what the project participant must prepare prior to site visit.

3. Site visit and check that the project partners is in compliance with all parts of the Code of Sustainable Practice.
 - a. If part of the operations is found not to comply with the code of Sustainable Practice, then a list of required changes should be prepared by the program Safeguard Manager.
 - b. A follow up review is done and point (a) above is then repeated until the partners is in compliance with the code of Sustainable Practice or it concluded that the partner will not be in compliance with the Code of Sustainable Practice.
4. Certificate of Compliance of Sustainable Practice is issued
5. A copy, either in the form of a signed document, or as a PDF file, will be sent to the partner and to other stakeholder that has expressed interest in getting a copy of the particular certificate or a copy of all certificates of compliance with the Code of Sustainable Practice.

Details of Code of Sustainable Practice

The parties that seek to be certified for compliance with the Code of Sustainable Practice shall contact the Safeguard Manager. All partners that sign a partnership agreement with Green Development will be requested to be certified for compliance with the Code of Sustainable Practice.

General Guidelines

The safeguard manager shall be responsible for certification of all parties supported by the program.

The safeguard manager will not only certify the program participants, but will also assist with processes required to be certified. This include, but might not be limited to;

- Arranging a stakeholder consultation prior to pre-approval of proposed micro distilleries.
- Arrange for Health Safety and Environment training
- Conduct an Environmental Impact Analysis for new distilleries to be established.
- Provide access to technical support and recommend solutions that can might be needed for compliance to the Code of Sustainable Practice.
- Inform the parties about legal requirements and regulations

If certification of compliance with the Code of Sustainable Practice cannot be issued, the party that requests such certification shall be provided, in writing, with the reasons for non-compliance. Recommendations to changes that might lead to compliance shall also be provided.

Non-Compliance with the Code of Sustainable Practice

If one or more aspects of the requirements have not been met, the safeguard manager shall assist the entity to adjust its processes to meet the requirement.

If it is not possible, or it is prohibitively difficult or costly to meet the compliance requirement, then the safeguard manager shall make a recommendation for further action that could have two outcome.

1. Recommend that the potential partner should be certified for compliance with the Code of Sustainable Practice. If such a recommendation is given, then a short report justifying the recommendations shall be sent to the following 4 entities for review and comments;
 - a. The appropriate government entity with the government of Madagascar
 - b. The appropriate entity within the World Bank
 - c. The board of Angovo Man'Eva
 - d. Green Development

The recommendations of the certifier shall be considered valid, if one or more of the 4 entities listed above does not provide a written objections to such recommendation within 30 days.

2. Recommend that the unit is not certified for compliance with the Code of Sustainable Practice. If such a recommendation is given, then a short report justifying the recommendation shall be sent to the same 4 entities as listed under point A above. The recommendations of the certifier shall be considered valid, if one or more of the 4 entities listed above does not provide a written objection to such recommendations within 30 days

The party that seeks to be certified will receive a copy of the proposed recommendation by the safeguard manager prior to it being submitted to the 4 entities. The party will then be invited to provide their own written justification and argument for being certified. Such a justification shall be provided to the safeguard manager within 10 days, and shall be enclosed with the recommendation given to the 4 entities listed above.

Labor requirement

Applies for all entities along the ethanol value chain.

- The operations shall not rely on the use of Child labor. The operations shall not rely on any labor under the age of 15 or the minimum age as regulated by the labor law.
- The operations shall pay the minimum salary in Madagascar. Salary shall not be less than 130,000 AR per month for full time work or less than the minimum wage in Madagascar at any time.
- All staff shall receive required training do to their job, in addition to training related to Health, Safety and Environment. This apply to all staff working at distilleries and retailers.

Sampling

For certification process for Retailers and for feedstock producers, the certification process shall reply on sampling of a random selected number of retailers and feedstock producers. This to reduce the cost of the certification process.

If a LPIP have more than 50 retailers, then 10 retailers shall be sampled. If the partner has less than 6 retailers, then all the retailers shall be checked for compliance with the Code of Sustainable Practice.

Sampling for feedstock producers, shall include a minimum of 5 farmers that provide feedstock for ethanol production to each distillery which provide ethanol to the program. If there is more than 50 farmers that provide feedstock to a single distillery, then 10 farmers shall be selected for compliance with the Code of Sustainable Practice. If some of the farmers that provide feedstock to the distillery has more than 10 ha of land used for feedstock production, these farmers shall be selected for compliance with the Code of Sustainable Practice before the any other farms are selected randomly.

Requirements specific for Distilleries

Waste management

The distillery shall have a system in place for managing the waste from the distillery process. This shall at a minimum requires that biological degradable waste is separated from non-biologically degradable waste.

The non-biological waste shall be disposed of in an environmentally safe way. This includes all plastic containers, building material and equipment that have been disposed.

The bio-degradable waste shall be disposed of in a way that cause minimal harm to the environment. The distillery shall be encouraged to and shall be provided with information about, but shall not be required to:

3. Use the vine left over after the distillation process, in a biogas digester to generate biogas that can be used as energy for the distillery.
4. Make the bio-degradable waste available as biomass for feedstock production.
5. Enhance the value of the bio-degradable waste by mixing it with locally available waste such a feather or bones or bagasse in a compost environment to enhance the nutritional value of the waste as a biomass.
6. Have facilities in place to dry the waste so that it can easily be disposed of or brought to the fields as biomass for the feedstock production.

Record keeping

The distillery shall keep records of all feedstock used in the production of ethanol. The records shall include a minimum of;

- Type of feedstock (Sugar cane, or molasses etc.)
- Date of purchase
- Price paid per ton of feedstock
- Name of Supplier of the feedstock.

The distillery shall keep a record of all sales of ethanol and shall include;

- Volume of ethanol sold, in liter
- Date of sale
- Price per liter ethanol sold
- Name of the buyer of the Ethanol.

Stakeholder consultation

Stakeholder consultation shall be conducted for distilleries prior to initial certification of compliance with this Code of Sustainable Practice. The stakeholder consultation meeting will

be arranged by the safeguard manager, and will be arranged before any certificate of compliance with the code of sustainable practice is issues.

Environmental Impact Assessment

An Environmental Impact Assessment shall be carried out for all distilleries. The Environmental Impact Assessment shall be carried out by the safeguard manager in conjunction with the initial certification of compliance with this Code of Sustainable Practice.

For distilleries with a capacity to produce in excess of 5,000 liter ethanol a day, an Environmental Impact Assessment shall be made by a 3rd party and shall be approved by the government in accordance with national regulations.

Availability of land for feedstock production

Data and recommendation from bio-mapping shall be used to determine if there may be sufficient land available for feedstock production. If the bio-mapping do not confirm that sufficient land is available for feedstock production around the site of the distillery, then additional scrutiny and studies shall be carried out to determine if feedstock could be provided without adverse effect on food production, forests or any eco-system.

The micro distillery have to prove that sufficient land is available to provide feedstock. The available land shall not be less than what is specified in the table below;

Daily capacity of micro distillery	Ha of land needed for sugarcane production
200 liter	15
500 liter	40
1,000 liter	80
2,000 liter	160
5,000 liter	400

The land available for feedstock production shall not have been covered by forest in the last 10 years, or being used for food production.

Requirements specific for feedstock production

Certification for feedstock productions, will be assessment of a random sample of feedstock producers that produce sugarcane to a distillery or for individual farms that have more than 10 ha of land which feedstock is produced.

Soil protection.

- The farmers shall not use excessive pesticide. International guidance or national regulations for the maximal volume of pesticide used shall be followed.
- The farmers shall not use excessive use of chemical fertilizers. International or national regulations for the use maximum volume of chemical fertilizers shall be followed.
- The farmer shall use biomass for fertilizing, and such biomass might include processed waste from the wine, from the distillery.
- The farmer shall be encouraged to use No-till production systems
- The farmers shall be encouraged to use Crop rotation with alternative crops such as food crops when the soil conditions imply that this will improve the soil quality.

The farmers shall be informed about recommended use of pesticide and chemical fertilizers. The farmers shall also be informed about recommended use of biomass to protect the soil and secure acceptable yield.

Water use

The farmers shall be informed about recommended practice for water use and about available technologies to improved soil protection and improved yield by improved watering practice.

Alternative use of the land

It shall be determined if the feedstock production has:

- Adverse effect of reduced food production.
The certifier may accept adverse effect of reduced food production as a result of the project activity, if the total reduction in food production in the region is reduced by less than 10% as a result of the project activity.
- Adverse effect of replacing people as a result of the project activity.
The certifier may accept adverse effect of people being replaced as a result of the project activity if the total population in the area decrease by less than 10% as a result of the proposed project activity. The substantial number of people need to be resettled, as a direct result of project activity, the project implanter shall have a resettlement plan in compliance with World Bank guidance and local regulations.
- Adverse effect as a result of the use of fertilizers
The certifier may accept adverse effect of the use of fertilizers if the use on fertilizers, excluding biomass, is done in accordance with national or regional guidance and it is found that excess amount fertilizers or pesticides has not been used. The use of biomass shall not be considered as fertilizer in this context.
- Adverse effect of deforestation as a result of project activity
 - The certifier can neglect effect of deforestation of a project activity if the land has not been covered by forest in the last 10 years prior to project start.
 - If some, but relatively minor part of the land used for cultivation of feedstock has been forested in the last 10 years, then the certifier shall use the more detailed

guidelines from the UN “General Guidelines on leakage in biomass projects” to determine if the project could be certified

If there is any uncertainty if a project comply with the two bullet points above, then the certifiers shall seek 3rd party assistance to determine if the project could be certified. The World Bank and the government of Madagascar will be invited to provide such 3rd input. The 3rd parties will then have 30 days to provide a written opinion. If no opinion is provided by the 3rd party, the certifier might proceed and use his or her opinion to decide of the project should be perceived as in compliance with the Code of Sustainable Practice.

Resettlements of people living on the land used for feedstock production

The project will only consider challenges related to the resettlement of people under the condition that the people that will be resettled as a result of the project activity have:

- Lived permanently on the land to be used for feedstock production.
- Lived there for at least 10 years prior to start of program.
- Lived there up until the time when the decision to change the crop to grow feedstock for ethanol production has been taken.
- They are resettled as s direct result of the project activity

No action need to be required to compensate the people that will be resettled as a result of the project activity if;

- The people has been offered housing of similar quality that what they had before they would be resettled
- They have been offered a job with the same or better compensation than they had before they would be resettled.

Information about rights and conditions for compensation related to resettlements shall be provided in the stakeholder consultation to be held before project activity can be certified for compliance with the “Code of Sustainable Practice”. Any request for compensation shall be put forward by those that claim such compensation no less than 10 days after the stakeholder consultation meeting. Such a request shall be sent to the project developer, with a copy to the safeguard manager.

The program partner is encouraged to seek a voluntary agreement with people that might be resettled as a result of the program activities.

If any people claim right to compensation as a result of forced resettlement, then;

1. These people will be required to provide a written justification for their claim and the compensation that they seek.
2. A group representing the local government, CCM and the project developer shall then assess the claim. If the claim is found to be invalid or unjustified by all the people in the group assigned to assess the claim, the claim shall be dismissed.
 - a. If the claim is dismissed, the people that claim compensation shall then be informed about the decision to dismiss the claim. The people that claim compensation shall then be provided with the option to challenge the decision not to grant them any right to compensation.
 - b. The people claiming compensation shall then be provided with contact information of a representative for the Central Government and a Representative

- from the World Bank in Madagascar to which the claim for compensation can be submitted.
- c. The request from the people claiming compensation, shall then be forwarded to the Central Government and the World Bank together with a written justification for the initial decision that the claim is unwarranted by the initial evaluation of the claim.
 - d. If neither the representative from the Government or the representative from the World Bank support the validity of the claim for compensation for resettlement within 10 days of receiving the request, then the initial decision that the people have no rights to compensation for being resettled shall be final.
3. If it is concluded that there is a valid claim for compensation for resettlement, then the project developer shall provide alternative land and households at similar or better standard than what they had prior to being requested to move.

Responsibility for compliance to the guidelines related to resettlement of people shall be the sole responsibility of the entity that will sell the feedstock to the ethanol producers, or the ethanol producers if it is the same entity that will produce feedstock and produce ethanol from the feedstock.

Ethanol retailing

- A written Notice of instruction in the Malagasy and French language must accompany the ethanol stove with the following information;
 - Use manual
 - Warranty
- The ethanol containers (bottles) shall be labeled. The label shall be in Malagasy and in French, and shall at a minimum include the following:
 - Name of the ethanol supplier
 - Contact information of the supplier, including phone number or email
 - Stating the minimum strength of the ethanol.
 - Warning sign illustrating that the content is flammable.
 - The volume of liquid in the bottle
 - Warning that the liquid can be harmful if attempted to drink
- The staff selling the ethanol and the ethanol stoves shall have received training on how to operate the ethanol stove safely, and efficiently
- All waste, including but not limited to empty containers shall be disposed of in a environmentally acceptable way.
- The seller shall train the buyer on how to use the stove effectively and safely.
- Retailers shall register all buyers of ethanol stoves with the smart phone application provided by Green Development. The retailers shall be trained in use of the smart phone application and shall have the required smart phone to make the registration for every ethanol stove sold.
- The retailers shall be able to provide records of monthly volume of ethanol sold, and shall be able to document the supplier of the ethanol.

Retailers might be selected randomly for inspected to confirm compliance with the Code of Sustainable Practice.

Certification confirming compliance with Code of Sustainable Practice

Appendix 1 – Certification of compliance of proposed micro distillery

1	The proposed Distillery is owned by a Malagasy national or by an organization that is registered as a legal entity in Madagascar	
2	Have legal right to the use of land for the micro distillery	
3	Environmental Assessment Analysis has been carried out, and confirm that there is no major negative environmental risk associated with the distillery	
4	Local Stakeholder consultation has been carried out	
5	Sufficient water resources are available that the distillery has legal access to	
6	The distillery has a plan for environmentally sound waste disposal	
7	The distillery has a plan for renewable energy production	
8	The plant have secured access to land sufficient to produce or secured supply of feedstock equal to 50% of plant capacity	
9	The proposed owner of the plant is a Malagasy national or an organization that is registered as a legal entity in Madagascar.	
10	Proposed distillery meet all technical requirements and specifications	
11	The local government has not issued any written objections against the establishment of the distillery	
12	The central government has not issued any written objections against the establishment of the distillery	
13	Both the local and the central government has been informed about the plan to set up the distillery and been asked if they have any objections to this.	

Recommended, but not required, action for improvements:

Date of certification

Certification completed by:

Safeguard Manager, CCM

Signed

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Appendix 2 – Certification of feedstock production

1	Feedstock producer has legal right to the use of the land	
2	Feedstock production is sustainable based on bio-Mapping	
3	Feedstock producers pay labor in excess of minimum salary	
4	Feedstock producers do not rely on child labor	
5	Land for feedstock production is not perceived as a sensitive ecosystem	
6	The right of use of the land for feedstock production is disputed	
7	The use of the land for feedstock production does not contribute to a considerable reduction in food production.	
8	Feedstock production meet requirements for soil protection	
9	Feedstock production meet requirement for water usage	
10	The feedstock production does not contribute to increased deforestation	
11	There is no negative social or environmental impact as a result of the project as compared to alternative use of the land.	
12	There is no negative impact associated with alternative use of land for feedstock production	

Recommended, but not required, action for improvements:

Date of certification

Certification completed by:
Safeguard Manager, CCM

Signed

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Appendix 3 - Certification of retailers

1	Ethanol is denatured according to requirement	
2	Ethanol is bottled according to requirement	
3	The ethanol is labeled according to requirements	
4	Retailer has been trained according to requirement	
5	User instructions is enclosed with all stoves sold	
6	Users is given training and instructions on how to use the stove safely	
7	Users is given training and instructions on how to use to stove efficiently	
8	Users are given a written warranty of at least 3 years, and informed about the warranty at the time of sale	
9	The retailers is registering all households with the smart phone application.	
10	Ethanol sold as a purity of at least 90%	
11	Retailer has received the required training	
12	Retailer has appropriate waste management system in place	
13	Product information including user manual and warranty conditions is included with every stove sold	
14	Retailers has required records for documenting sales ethanol	

Recommended, but not required, action for improvements:

Date of certification

Certification completed by:

Safeguard Manager, CCM

Signed

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Appendix 4 - Certification of Distillery

1	Ethanol produced has a purify of at least 90%	
2	Ethanol is denatured before it leaves the distillery site	
3	The distillery has access to renewable energy for the operations of the distillery	
4	The distillery does not rely on the use of non-renewable energy for operations	
5	All employees have received training related to Health, Safety and Environment	
6	The ethanol is stored in closed containers that is non-combustible and water proof, that are at a safe distance from any source of ignition (flame, sparks, solar ray etc).	
7	The ethanol containers are clearly marked according to regulations	
8	The distillery comply with the requirement of being fenced in a way that restrict unauthorized people to enter.	
9	The entrance to the facility has signs that clearly state that the site is dangerous and flammable. The sign shall state that smoking within the facility is forbidden.	
10	Keep good records of all ethanol sold and all the feedstock used.	
11	All employment is in compliance with national regulations	
12	All employees have received training related to their word at the distillery	
13	The distillery has all the legal licenses required for operations	

Recommended, but not required, action for improvements:

Date of certification

Certification completed by:
Safeguard Manager, CCM

Signed

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