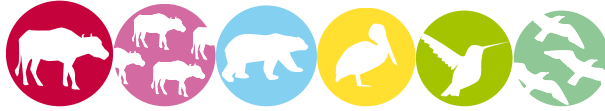


GOLD STANDARD PASSPORT

CONTENTS



- A. Project title**
- B. Project description**
- C. Proof of project eligibility**
- D. Unique Project Identification**
- E. Outcome stakeholder consultation process**
- F. Outcome sustainability assessment**
- G. Sustainability monitoring plan**



- H. Additionality and conservativeness deviations**



- Annex 1 ODA declarations**

SECTION A.	Project Title
-------------------	----------------------

Santander and Las Tapias Renewable Energy Project

Version 04

Document completed on 19/07/2012.

SECTION B. Project description

The project activity is the project of Las Tapias 3 and Santander Ceramics, which are both red ceramics industries located in Colombia. Las Tapias 3 Ceramic is located at Bogotá, in the state of Cundinamarca. Ceramic Santander is located at Soacha municipality, also in the state of Cundinamarca. The ceramic industries produce ceramic bricks, destined mainly for the regional market in the metropolitan area of Bogotá. A brief description of the situation on each ceramic before and after the initiation of the project activity follows:

Las Tapias 3 Ceramic

This ceramic factory began operations in 1994. It used to operate two beehive¹ kilns and one hoffmann² kiln using coal as fuel. For the development of the project, the proponent invested in the installation of one tunnel³ kiln. The ceramic has also acquired new equipments, including a carbojet (an automatic feeder), for the project development.

At *Las Tapias 3 Ceramic*, the feeding process in the kilns was done manually. The project involves an increase in fuel volumes, since the renewable biomass has lower energy content than coal, leading to higher volumes for a given amount of energy. Therefore, feeding the kilns demanded investments in the automatic feeders, increasing production costs. Figures below illustrate the situation before and after the project activity.



Figure 1. Beehive kiln in for Ceramic Las Tapias 3 before the project initiation.

¹ Beehive kilns are circular kiln, with a domed roof and are built of ordinary bricks. The circular wall is totally in contact with the outside air. More information at: <<http://www.fao.org/docrep/x5328e/x5328e08.htm#7.2.1.design>>. Last access on 12/12/2010.

² "Hoffman" is a very old type of kiln, which has parallel chambers where the heat from one chamber is used in the next, therefore recycling the generated heat in the previous chambers.

³ A tunnel kiln is a type of continuous kiln that is typically open on both ends and heated centrally. Bricks may be passed through the device in an uninterrupted fashion, allowing large volumes to be processed without shutting off the kiln between batches.



Figure 2. Tunnel kiln installed as the project in Ceramic Las Tapias 3.

Santander Ceramic

This ceramic factory began operations in 1985. It used to operate two Pampa⁴ kilns using coking coal as fuel. For the development of the project, the proponent invested in the installation of one Hoffmann kiln and one Chamber kiln. The ceramic has also acquired new equipments, including a wood shredder and a carbojet, all involved in the project development. The wood shredder is used in order to cut the bigger pieces of wood and allow their entrance into the kilns. The use and monitoring of this new equipment and new fuels (biomass) called for training of the employees.

At Santander Ceramic, the feeding process in the kilns was done manually. The project involves an increase in fuel volumes, since the renewable biomass has lower energy content than coal, leading to higher volumes for a given amount of energy. Therefore, feeding the kilns demanded investments in the automatic feeders, increasing production costs. Figures below illustrate the situation before and after the project activity.



Figure 3. Pampa kiln at Santander Ceramic (pre-project situation).

⁴ Pampa kilns are also known as “Arab” kilns. These are intermittent kilns, with rectangular shape, thick walls to retain heat and no chimney or roof. Pampa kilns present very low efficiency due to insufficient air flow and primitive design.



Figure 4. Chamber kiln at Santander Ceramic (project situation).

In 2010, Santander Ceramic has used an average of around 49 tons of renewable biomass and 307 tons of coal per month. This is equivalent to a proportion of nearly 8% of renewable biomass and 92% of fossil fuel, on an energy basis⁵. The proportion of renewable sources shall grow during the crediting period, reaching 80% in the last year of the first crediting period. The project intends to allow the complete fuel switch to renewable biomass, but this may be achieved only during the second crediting period.

Estimated start date of construction: This project started construction on 20/02/2008 for Santander Ceramic and on 01/08/2008 for Las Tapias 3 Ceramic. The starting date of the project is before the "*Time of first submission*" as per Gold Standard definitions. Hence, the project is applying for retroactive registration according to Gold Standard Toolkit Section 1.2.6. More information on the history of the project implementation can be found in Section A.2 of the PDD.

⁵ Consumption in tons of fuel was converted to Terajoules according to Net Calorific Value of each fuel. More information available on Section 4.

SECTION C. Proof of project eligibility

C.1. Scale of the Project

Please tick where applicable:

Project Type	Large	Small
	☐	☐
	☐	☐
	☐	☐
	☐	☒
	☐	☐
	☐	

C.2. Host Country

The host country is Colombia.

C.3. Project Type

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	✓	☐
Does your project activity classify as an End-use Energy Efficiency Improvement project?	✓	☐

Please justify the eligibility of your project activity:

The project is in compliance with Gold Standard eligibility criteria, as per Section 1.2 of the GS Toolkit v.2.1 and also the additional specific eligibility criteria detailed in Annex C. The partial fuel switch from fossil fuels to renewable biomass is applicable as long as the project ensures a minimum 50% of utilization of renewable fuels for retrofit plants to be achieved within 3 years after registration and a minimum 80% of utilization of renewable fuels for greenfield projects to be achieved from the outset⁶. Furthermore, the project satisfies all applicability conditions of the following Gold Standard approved methodology: “*Ecologically Sound Fuel Switch to Biomass with Reduced Energy Requirement*”, version 1.0⁷. Project eligibility is further detailed in Section B.2 of the Project Design Document.

The main focus of this Project is to allow the substitution of fossil fuel (coal) with renewable biomass while improving energy efficiency in the production process of two red ceramic industries in Colombia. Therefore, the project qualifies to both eligible project categories under the Gold Standard: Renewable Energy Supply and End-use Energy Efficiency Improvement.

The project is capable of generating real, measurable and verifiable emission reductions due to fuel switch to renewable biomass and due to the reduction in energy demand to produce bricks. All measures are considered additional to the common practice and are not mandated by any laws or regulations.

Furthermore, the project will use exclusively demonstrably renewable biomasses whose source can be verified and is expected to generate emission reductions of less than or equal to 60 kt CO₂ equivalent per year.

Pre Announcement	Yes	No
Was your project previously announced?	☐	✓
The project has not been previously announced to be going ahead without the revenues from carbon credits. In May 2007, Sustainable Carbon visited ceramic factories located in and around the metropolitan area of Bogota, Colombia. These visits were intended		

⁶ This information was last confirmed by the Gold Standard Regional Manager for Latin American on September, 2011

⁷ Methodology available at: <
http://www.cdmgoldstandard.org/fileadmin/editors/files/6_GS_technical_docs/manuals_and_methodologies/GS_Methodology_Switch_to_Biomass_Fuel.pdf>. Last visit 21/01/2011.

to promote the benefits of voluntary GHG reduction projects in which owners of small to medium-sized business could participate in order to finance the transition to a cleaner energy matrix that otherwise would be too financially-burdensome to execute without having access to the international carbon market.

Later that year, Sustainable Carbon was invited to participate in the seminar “III Curso Internacional de Ceramica (Third International Course on Ceramics)”, organized by the Universidad Francisco de Paula Santander, in Cucuta, Colombia (Sustainable Carbon also participated in the same event in 2008). In both occasions, lectures about carbon projects were held for the owners of ceramic factories and related businesses.

During 2008, Sustainable Carbon made more visits to other ceramic factories in and around Bogota and Medellin, Colombia, when data for the feasibility assessment were collected from some factories, including information from Ladrillera Santander in the city of Soacha. The Camara de Comércio de Bogotá (Commerce Chamber of Bogota) was also contacted regarding the possibility to develop carbon projects within the ceramic industry.

In May 2010, Sustainable Carbon established a partnership with Ecoeficiencia, a Colombian-based company for environmental services and consulting in order to continue the development of projects in Colombia. The first decision made was to develop a project with some ceramic factories in the metropolitan region of Bogotá as some had made investments in energy-efficient technologies with the aim to enter the carbon market. In 2008, two ceramics in that region – Ladrillera Santander D/M S en C and Ladrillera Ruiz y Moreno Compañía Sociedad en Comandita (group where Las Tapias 3 is included) – invested in the replacement of their low efficient kilns. In addition, the entrepreneurs from these factories also plan to replace a large part of their coal consumption with locally-sourced renewable biomasses. Sustainable Carbon and Ecoeficiencia wish to jointly develop a voluntary GHG reduction project under the protocols of the Gold Standard so as to obtain recognition for the voluntary measures undertaken by these factories. The project has not been announced at any moment before the consideration of carbon credit revenues, as the ceramics were aware of such benefits since the site visits made by Sustainable Carbon in 2007 and 2008. However, there wasn't a specific process of documenting the decisions of the ceramic owners with regard to the consideration of possible carbon revenues. This occurred mainly because small and medium-sized ceramic factories lack a culture of documenting investment decisions. Hence, the ceramics included in the project were aware of the benefits of the voluntary carbon market before investing in the project measures (kiln replacement and fuel switching). No announcement on the project measures was made prior to the site visits by the project developers. Communications between the project participants regarding the elaboration of carbon projects is available for the validation process. More details on the actions taken by the PP for the development of the emission reduction project are provided in the PDD.

C.4. Greenhouse gas

[See Toolkit 1.2.d]

Greenhouse Gas	
Carbon dioxide	✓
Methane	☐
Nitrous oxide	☐

C.5. Project Registration Type

Project Registration Type	
Regular	☐

Pre-feasibility assessment	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)
	✓	☐	☐

If Retroactive, please indicate Start Date of Construction dd/mm/yyyy: 20/02/2008 for Santander Ceramic and 01/08/2008 for Las Tapias 3 Ceramic.

SECTION D. Unique project identification

D.1. GPS-coordinates of project location

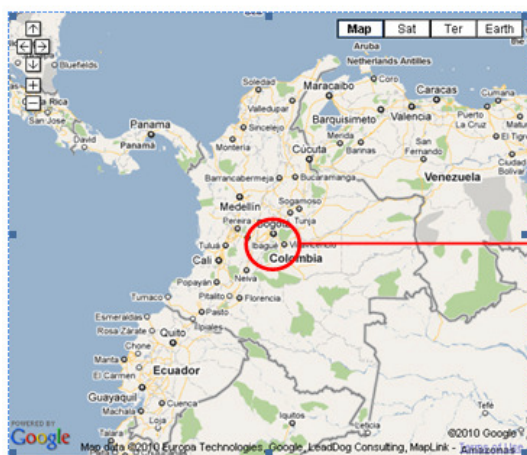
Las Tapias 3 Ceramic	Coordinates
Latitude	4°30'24.73"N
Longitude	74° 8'58.25"W
Santander Ceramic	Coordinates
Latitude	4°31'13.67"N
Longitude	74°11'54.50"W



Explain given coordinates

These coordinates indicate the main entrance to the ceramic industries included in the project.

D.2. Map



SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

This project is applying under the retroactive project cycle. According to Section VIII.b.4 of the Gold Standard v2.1 requirements, Project Proponents submitting a project activity for retroactive registration shall NOT conduct a Local Stakeholder Consultation but instead must apply for a Pre-feasibility Assessment.

As requested during the pre-feasibility assessment, project proponents have developed the Stakeholder Feedback Round in accordance to Gold Standard recommendations for the Local Stakeholder Consultation process.

Section E.2 of this document provides more information on the Stakeholder Feedback Round.

E.2. Stakeholder Feedback Round

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

There was one physical meeting, on October 31th, 2011, in Mochuelo Bajo, in the city of Bogotá, located in *Cundinamarca* state.

In a general way, the meeting was very useful. In the meeting, the participation from the community was made possible. Stakeholders included people related to the community, as business owners and neighbourhood associations.

Most of the comments included aspects related to improvement on air and water quality and the contribution to the climate change.

Improvement in working conditions was also highlighted, especially regarding workers who manage the kilns. With the acquisition of new technology for kilns the workers' contact with the kilns heat was reduced, also reducing the physical efforts of workers in the production sector of the ceramics.

There was a negative comment in the meeting about lack of interest by the environmental authority. No negative comments were received on the Project activity. Some suggestion of improvements on the design of the consultation meetings were received, regarding the choice of time and duration of the meetings

and commenting some technical issues could have been discussed in more detail.

The agenda of the meeting included the following subjects:

- Opening of the meeting

The meeting started with a brief presentation of the speaker and of the companies involved in the project: Ecoeficiencia and Sustainable Carbon. We also invited the participants to introduce themselves and introduced to them the context in which the project is inserted, explaining in a simple manner about climate change, global warming,

including topics on Greenhouse Effect and the carbon market.

An explanation was given about what is an emission reduction project and which are its main objectives. The purpose of the meeting was also explained to the participants as part of the Gold Standard project cycle. Stakeholders were informed that such meeting was being made in order to allow stakeholders to discuss about the project activity and to propose improvements.

- Explanation of the project

The project proponents were introduced, as well as the project location in two different cities of the *Cundinamarca* state – *Bogotá* and *Soacha*.

We demonstrated the actions proposed by project activity, which includes the substitution of fossil fuels for renewable biomasses to generate thermal energy and energy efficiency measures, such as the construction of new kilns and installation of new equipments (like automatic feeders), which reduces the amount of biomass consumed, prevent excessive smoke emissions and reduce the employees contact with the heat from the kilns.

Images of the renewable biomass utilized in the project activity (such as rice husk and sawdust) were shown to attendants and a brief explanation on what constitutes renewable biomass was provided.

The timeline of the project was also demonstrated, as well as the next steps involved until the issuance of Voluntary Emission Reductions.

- Blind SD exercise

The Blind SD Exercise was developed in the following way:

- 1- An explanation was given in a very simple manner regarding the meaning of sustainable development and its three dimensions considered by the Gold Standard – Social, Human and Financial and Technological – including the indicators associated to each dimension.
- 2- Each indicator was explained in a general manner, using pictures and given examples to enable participants to associate the indicators to their experience and to the project activity.
- 3- Afterwards, we asked about the participants' opinion, asking if they considered the implementation of the project would have positive, negative or neutral impacts on each indicator.
- 4- After the Blind SD exercise, our evaluation on the project impact on the indicators was shown to attendants, allowing them to comment such evaluation.

- Questions for clarifications about the project

Participants were given the opportunity to ask questions during the meetings, especially in three occasions: during the Blind SD exercise, following the presentation of the Monitoring of SD indicators and at the end of the meeting.

- Discussion on monitoring SD

First, we demonstrated the monitoring plan that would be used to monitor the indicators considered to have non-neutral impacts. Afterwards, we asked the participant's opinion on how to monitor such indicators, always seeking for improvements or new ideas about

the monitoring procedures.

- Closure of the meeting

During the closure of the meeting, we allowed some time for participants to ask questions or raise comments about the project activity. We also distributed the evaluation form and asked them to sign the attendance list.

Following the meetings, letters were sent to relevant stakeholders (the same stakeholders invited for the physical meetings) describing how the consultations process was developed.

A summary of the stakeholder comments received and how they were assessed was also described on such letters. In this same letter, stakeholders were informed on how to make additional comments on the project and on how to obtain the current version of the project PDD and Passport. These documents were made available on Sustainable Carbon website (<http://www.sustainablecarbon.com/Interaction/>).

SECTION F. Outcome Sustainability assessment

F.1. 'Do no harm' Assessment

[See Toolkit 2.4.1 and Toolkit Annex H]

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
Human rights			
1. The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human right abuses	Not relevant. The project is not expected to result in Human right abuses. Colombia ratified several treaties and conventions on human rights, including the American Convention on Human Rights (also known as the Pact of San José) ⁸ .	Low	None
2. The project does not involve and is not complicit in involuntary resettlement	Not relevant. The project does not involve any kind of resettlement or relocation.	Low	None
3. The project does not involve and is not complicit	Not relevant. The project has no impact on cultural	Low	None

⁸ More information on: http://en.wikipedia.org/wiki/American_Convention_on_Human_Rights.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
in the alteration, damage or removal of any critical cultural heritage.	heritage.		
LABOUR STANDARDS			
4. 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.	Not relevant. The project will not affect the employees' freedom of Association. As of June 2010, Colombia had ratified 60 conventions of the International Labor Organization (ILO) ⁹ .	Low	None
5. The project does not involve and is not complicit in any form of forced or compulsory labour	Not relevant. The project will not involve any form of forced or compulsory labour. Colombia has ratified ILO Convention 29 on forced and compulsory labor ¹⁰ .	Low	None
6. The project does not employ and is not complicit in any form of child labour.	Not relevant. The project will not involve any form of child labour. Colombia is a party of the International Programme on the Elimination of Child Labour (IPEC) and has ratified several conventions related to the subject, such as The Minimum Age Convention (118), The Worst Forms of Child Labour Convention (No. 182) and the Convention on the Rights of the Child (CRC) ¹¹ .	Low	None

⁹ More information on: <<http://webfusion.ilo.org/public/db/standards/normes/appl/appl-byCtry.cfm?CTYCHOICE=0140&lang=EN>>.

¹⁰ More information on: <<http://webfusion.ilo.org/public/db/standards/normes/appl/appl-byCtry.cfm?CTYCHOICE=0140&lang=EN>>

¹¹ More information at: <<http://www.ilo.org/ipeinfo/product/viewProduct.do?productId=7794>>.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
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	Not relevant. The project will not result in any form of discrimination. Colombia has ratified international conventions on discrimination, such as the ILO 100 and ILO 111 conventions ¹² .	Low	None
8. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environment	Relevant. The project might expose workers to the risk of accidents and other safety related concerns. The use of renewable biomass might result in exposing workers to particulate emissions if due if due caution is not taken.	Medium. Health and safety regulations are complied with. The project is expected to have a positive effect on the working conditions. However, workers who load the rice husk (an available renewable biomass in the region, described in the PDD) to feed the kilns are exposed to airborne particulate matter, which irritates eyes and lungs. As a mitigation measure, the project will monitor Actions of Health and Security in each ceramic.	Monitoring actions of Health and Security and making available to workers the Individual Protective Equipment (IPE) on each ceramic, which provides protection against airborne particulates (respiratory masks, eye goggles, Gloves). This is better described in the Sustainability Monitoring Plan (Section G of this document).

¹² More information at: <http://webfusion.ilo.org/public/applis/appl-byCtry.cfm?lang=EN&CTYCHOICE=0140&hdroff=1>.

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
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	Sustainable Carbon has significant experience with the project measures. It has helped over 40 ceramics in Brazil to apply renewable biomass as fuel. Ecoeficiencia has significant experience with environmental projects and services.	Low	None
10. 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 big conservation value, or (d) recognized as protected by traditional local communities.	The project will predominantly use abundant biomass residues as fuels. Hence, the impact on environmentally protected areas is not expected. As a mitigation measure, the project will monitor the origin of biomass used to assure they are renewable and do not result in environmental degradation.	Low	Monitoring the origin of biomass, as described in the Sustainability Monitoring Plan (Section G of this document).
ANTI-CORRUPTION			
11. The project does not involve and is not complicit to corruption	Not relevant. The project does not involve corruption. Colombia has ratified the United Nations Convention against Corruption ¹³ .	Low	None
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
None	None	None	None

¹³ More information at: < <http://www.unodc.org/unodc/en/treaties/CAC/signatories.html> >.

F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
Air quality	None	Relevant to Goal seven: Ensure Environmental Sustainability. The project will decrease the consumption of fossil fuels and mitigate atmospheric pollution. Colombian Millenium Development Goals include measures to reduce air contamination in urban areas ¹⁴ .	Low efficiency kilns were used in the baseline, which is a common practice in Colombian red ceramic industries ¹⁵ . Some of these kilns had no roofing or chimneys, thus not allowing the control of atmospheric emissions. The low efficiency also demanded higher amounts of fuels, contributing to high levels of air pollution. On the other hand, the Project kilns are equipped with chimneys and allow the control of atmospheric emissions. However, as this project is proposing the fuel switch to renewable biomass, a neutral scoring is being conservatively considered, since the ceramic owners have no experience in using this type of fuel. The lack of experience might lead to temporary increase in smoke emissions due to the increased amount of fuel needed to meet the ceramics energy demand.	0
Water quality and quantity	None	None	None. The fuel switching and energy efficiency project is not expected to result in impacts in water quality and quantity. Although water is used in the brick production process during the molding phase, the project only involves modifications in the burning and drying phases, where impacts on water are unlikely to occur. The use of water shall remain similar to the baseline situation, where major significant impacts on water quality and quantity are not observed.	0
Soil condition.	Monitoring the	Low relevance	The project might result in environmental pollution in case	0

¹⁴ Information on Colombian MDG are available at: < <http://www.pnud.org.co/sitio.shtml?apc=i1-----&s=a&m=a&e=B&c=02010>>. Last vist 14/01/2011.

¹⁵ Please refer to the PDD for information on the common practice analysis.

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
	procedures related to the control and disposal of ashes following Social Carbon® procedures		appropriate procedures to manage and dispose ashes are not followed. During the project operation, ashes result from the burning of fuels (both coal and biomass). In the baseline situation, the ceramics try to minimize the environmental impact of the ashes by recycling it or selling it to third parties and raw material. However, proper procedures are not always observed and the potential for environmental impacts exists. With the project activity, new kinds of fuels will be used (renewable biomasses) and the generation of ashes might increase. Therefore, the project proponents will monitor the procedures to control and dispose ashes on each ceramic. The project will apply the following indicator from Social Carbon Standard®¹⁶: Social Carbon indicators for Ceramic Industry¹⁷: Ashes - Evaluates the procedures adopted by the entrepreneur in order to control the ashes and its destination. This indicator is used to guaranty that appropriated measures is taken to regarding the displacement of ashes in over 40 ceramic industries in Brazil, through a more practical method based on participatory interviews and meetings with stakeholders. The project situation is analyzed on a periodical basis and is scored from 1 to 6, where 1 represents a critical situation and 6 represents a sustainable scenario.	

¹⁶ The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: <<http://www.socialcarbon.org/>>.

¹⁷ Available at: <http://www.socialcarbon.org/uploadDocs/Documents/Indicators_for_Industries_of_the_Ceramic_Sector_v8_English.pdf>. Last visit on 14/01/2011.

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
			For the Ashes indicator, the following scenarios are defined: 1. Ashes deriving from the biomass burning in the kilns are discarded without any environmental control. 2. Part of the ashes is designed in an inadequate way and the other part is reused/donates without specific control. 3. Ashes are totally reused or donated, but without specific control. 4. Ashes are totally reused or donated, with control of the quantity and destination of the material. 5. In addition to the last item, part of them is commercialized. 6. The company presented management system that includes procedures to store, to monitor, to reduce the generation, and others. Therefore, the project proponent will rely in site visits and interviews to determine the level of control over the handling and disposal of ashes. The aim of the project is to assure environmental impacts are avoided and a sustainable use and disposal of ashes is obtained.	
Other pollutants	None.	None	None. The project includes the installation of new equipments (such as automatic feeders) that could lead to increased noise emissions. However, these equipments present low noise emissions, not exceeding the permitted levels of emissions.	0
Biodiversity	None.	None.	None. The fuel switching and energy efficiency project is not expected to result in impacts on biodiversity. The project will use as fuel preferably locally abundant biomass residues as	0

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
			fuel. The project is not expected to result in land use change nor in pressure on ecosystems or biomass chains.	
Quality of employment	No.	Low relevance.	The project is likely to result in positive impacts in the quality of employment. The baseline situation includes some inefficient kilns that had no roofing or chimneys, thus not allowing the control of atmospheric emissions. These kilns exposed workers to significant levels of air pollution. Besides, the project includes a certain level of automation in the logistics, improving the working conditions of employees responsible for feeding the kilns with bricks and fuels. To monitor the project impact on the quality of employment, the project will apply the following indicator from Social Carbon Standard®¹⁸: Social Carbon indicators for Ceramic Industry¹⁹: Actions of Health and Security – evaluates the existence and performance of campaigns, leisure and goal and plans regarding to health and security. This indicator is used in over 40 ceramic industries in Brazil, through a more practical method based on participatory interviews and meetings with stakeholders. The project situation is analyzed on a periodical basis and is scored from 1 to 6, where 1 represents a critical situation and 6 represents a sustainable scenario. For the Actions of Health and Security indicator, the following scenarios are defined:	+

¹⁸ The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: <<http://www.socialcarbon.org/>>.

¹⁹ Available at: <http://www.socialcarbon.org/uploadDocs/Documents/Indicators_for_Industries_of_the_Ceramic_Sector_v8_English.pdf>. Last visit on 14/01/2011.

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
			1. Occurrence of serious accidents in the last 12 months. 2. There were no serious accidents, but no campaign, lecture or training was done in the last 12 months. 3. Only occasional campaigns or lectures of awareness regarding the occupational health and security in the last 12 months AND/OR Security internal communication in specific places (ex: posters, warnings, etc). 4. The company develops regular campaigns, meetings, training regarding occupational health and security in the last 12 months. 5. In addition to the left item, the company has goals and planning regarding the occupational health and security with difficulties to execute. 6. Goals and planning regarding the occupational health and security, with satisfactory execution. Therefore, the project proponent will rely in site visits and interviews to assess the project situation regarding health and security measures. A positive impact is achieved in case the identified score (from 1 to 6, as above) increases in the long term and does not decrease to below the identified baseline during any year of the crediting period.	
Livelihood of the poor	No.	None.	None. The project is not expected to affect the living conditions of the poor.	0
Access to affordable and	No.	Relevant to Goal seven: Ensure Environmental	The project is expected to positively impact the access to affordable and clean energy services. The measures applied	+

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
clean energy services		Sustainability. The project will produce energy from renewable sources and promote energy efficiency. Colombian Millennium Development Goals include measures to reduce GHG emissions and to promote alternative energy sources and the rational use of energy²⁰.	by the project activity will result in renewable energy generation (by utilizing renewable biomasses) and also in energy efficiency measures (by installing more efficient kilns). Energy efficiency measures allow the ceramics to reduce their energy demand for their productive process, while the use of renewable biomasses provide alternative and clean energy sources that were not utilized in the baseline situation. Therefore, the access to clean energy is ensured while reducing total energy demand by the project operators. To monitor the project impact on this indicator, the following parameters will be used: 1. <u>Total energy produced from renewable sources</u>: the amount of renewable biomass used by each ceramic will be monitored during the crediting period. By using default values of energy content, the project proponents will be able to determine the amount of renewable energy produced during each year of the crediting period. Hence, this parameter relies in the monitoring of the amount of renewable biomass (in tonnes or m³), while being monitored in Terajoules of renewable energy. 2. <u>Energy demand per production output</u>: the energy demand per production output will be monitored by determining the amount of energy (in TJ) needed to produce 1,000 bricks in each ceramic during each year of the crediting period. The total energy utilized (both from coal and renewable biomasses) will be determined by multiplying the amount of	

²⁰ Information on Colombian MDG are available at: < <http://www.pnud.org.co/sitio.shtml?apc=i1-----&s=a&m=a&e=B&c=02010>>. Last vist 14/01/2011.

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
			each fuel (in tonnes or m³) by default values of energy content. This will be divided by the production output in the same period to determine the energy demand per thousands of bricks. Hence, this parameter is monitored as TJ/1,000 bricks produced. The project aims to increase the level of energy from renewable sources while decreasing the energy demand per production output. A positive impact will be achieved in case these parameters are better than the baseline situation.	
Human and institutional capacity	No.	None.	The project is not expected to affect human and institutional capacity. The project includes the introduction of new technologies and processes that demanded additional training from some of the ceramics employees. However, as this is not considered to be very significant in scale, a neutral impact is conservatively considered.	0
Quantitative employment and income generation	No.	Low relevance.	Quantitative employment and income generation is positively affected by the project. The project involved hiring temporary employees during construction and testing phases, but in the long term this is not considered a major impact. However, the ownership of the carbon credits is considered an important income for the ceramic owners, as these resources allowed them to invest in the fuel switching and energy efficiency measures applied by the project. In the baseline scenario, the ceramics had no incentive to reduce their GHG emissions and consequently did not invest in reducing their emissions. To monitor the project impact on this indicator, the amount of	+

Indicator	Mitigation measure	Relevance to achieving MDG	Choosing parameter and explanation	Preliminary score
			Voluntary Emission Reductions (or similar assets from the carbon market) issued will be monitored. A positive impact is assured in case the project is able to generate and issue carbon credits. Project proponents will also monitor the revenues made available by the project to the biomass suppliers. Biomass suppliers are mostly individuals and companies located in the project region. In the baseline, revenues were being exclusively destined to companies that provide mineral coal, which is a fossil fuel. During the project, revenues will be directed to renewable biomass suppliers. Hence, the project will allow for a new revenue stream for companies and individuals that provide renewable fuels in the project region. A positive impact is assured in case the project provides revenues to biomass suppliers. More information is described in Section G of this document.	
Balance of payments and investment	None	None.	This indicator will not be affected by the project.	0
Technology transfer and technological self-reliance	None	None.	The project is not expected to significantly affect technology transfer and technological self-reliance. The project includes the utilization of renewable biomasses in a sector where this is not a common practice. However, the project proponents consider the use of renewable biomass has a more significant impact on the “Access to affordable and clean energy services” indicator” and conservatively consider a neutral impact on the present indicator.	0

Justification choice	
Air quality	The importance of air quality and the control of atmospheric pollution to ceramic industries can be evidenced by provisions of Resolution 909 from the <i>Ministério de Ambiente, Vivienda y Desarrollo Territorial</i> (Ministry of Environment, Housing and Territorial Development), dated 05/06/2008. In this Resolution, specific emission parameters are set for existing ceramic industries. The Resolution is available at: http://www.carder.gov.co/doc_misionales/calidad%20aire/legislacion%20Fijas/Resolucion_909_del_05_de_junio_de_2008_Fuentes_Fijas.pdf. The low efficiency and significant environmental impact of the baseline kilns is demonstrated in the following study: http://www.javeriana.edu.co/biblos/tesis/ingenieria/tesis146.pdf. Information available in Section 6.1.2.6, Page 82. Detailed analysis of atmospheric pollution of ceramic industries is found on the following study: http://www.ucbcba.edu.bo/Publicaciones/revistas/actanova/documentos/v3n2/v3.n2.gallegos.pdf. All references were accessed and proved to be available on 26/01/2011. Margins of error are not applicable to this parameter, since no quantification on the chosen indicator (Emissions to the atmosphere) was made.
Water quality and quantity	Not applicable. The fuel switching and energy efficiency project is not expected to generate any impact or risk for water resources.
Soil condition	The project will apply the following indicator from Social Carbon Standard²¹: Social Carbon indicators for Ceramic Industry²²: Ashes. This indicator is used to guaranty that appropriated measures is taken on the control and displacement of ashes in over 40 ceramic industries in Brazil, through a more practical method based on participatory interviews and meetings with stakeholders. The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: http://www.socialcarbon.org/>. The indicators for ceramics are available at: http://www.socialcarbon.org/uploadDocs/Documents/Indicators_for_Industries_of_the_Ceramic_Sector_v8_English.pdf>.

²¹ The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: <http://www.socialcarbon.org/> >.

²² Available at: http://www.socialcarbon.org/uploadDocs/Documents/Indicators_for_Industries_of_the_Ceramic_Sector_v8_English.pdf >. Last visit on 14/01/2011.

	The environmental impact of ashes production in Colombian ceramic industries is mentioned on the following study: http://www.javeriana.edu.co/biblos/tesis/ingenieria/tesis146.pdf. Information available in Section 5.1.2.3, Page 52. Margins of error are not applicable to this parameter, since no quantification on the chosen indicator (Ashes) was made. This indicator will be assessed in a predominantly qualitative manner during the crediting period,
Other pollutants	Not applicable. The project is not expected to generate any impact or risk for water resources. Colombian legislation does not establish emission standards for other parameters to ceramic industries, which indicates that these impacts are not expected to occur. See Resolution 909 from the <i>Ministerio de Ambiente, Vivienda y Desarrollo Territorial</i> (Ministry of Environment, Housing and Territorial Development), dated 05/06/2008. A link to this Resolution is available under the justification of Air quality.
Biodiversity	Not applicable. The project is not expected to generate any impact or risk for biodiversity, since utilizes biomass residues. The origin of the biomasses shall be monitored during the crediting period.
Quality of employment	The project will apply the following indicator from Social Carbon Standard®: Social Carbon indicators for Ceramic Industry: Actions of Health and Security – evaluates the existence and performance of campaigns, leisure and goal and plans regarding to health and security. The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: http://www.socialcarbon.org/. The indicators for ceramics are available at: http://www.socialcarbon.org/uploadDocs/Documents/Indicators for Industries of the Ceramic Sector v8 English.pdf. The low efficiency and significant environmental impact of the baseline kilns is demonstrated in the following study: http://www.javeriana.edu.co/biblos/tesis/ingenieria/tesis146.pdf. Information available in Section 6.1.2.6, Page 82. Detailed analysis of atmospheric pollution of ceramic industries is found on the following study: http://www.ucbcba.edu.bo/Publicaciones/revistas/actanova/documentos/v3n2/v3.n2.gallegos.pdf. This study indicates that atmospheric pollution of ceramic industries results in health complications for the surrounding population. The employees are likely exposed to such impacts. The project kilns are more efficient and allow a better control over atmospheric emissions. This benefit, associated to the automation measures included in the production process might result in improved health and security conditions for the employees. Margins of error are not applicable to this parameter, since no quantification on the chosen indicator (Actions of Health and Security) was made. This indicator will be assessed in a predominantly qualitative manner during the crediting period.
Livelihood of	None. The project is not expected to affect the living conditions of the poor.

the poor	
Access to affordable and clean energy services	The common practice in Colombian red ceramic industries is the use of coal (a fossil fuel) in low efficiency kilns. Information on fuels commonly used in industries of stones, glasses and ceramics in Colombia, is provided on the Colombian Energy Balances 1075 – 2006. Document available at: <http://www.upme.gov.co/Docs/balance_energetico_2006.pdf>. The type of kilns commonly used in Colombian ceramic industries is available in the following study: http://www.javeriana.edu.co/biblos/tesis/ingenieria/tesis146.pdf. Information taken from Section 5.1.2.1, Page 46. The contribution of the project to this indicator includes the generation of energy from renewable sources and energy efficiency measures that reduce the energy demand per production output. More information on the expected levels of fuel switch and gains in energy efficiency are found in the Project Design Document. Margins of error are likely to be small (<10%) since the monitoring will be based on information used for commercial purposes measured by third parties (measurements of the amount of biomass purchased, which is used to determine due financial compensations) and on default values published on peer reviewed articles.
Human and institutional capacity	Not applicable. The project is not expected to affect human and institutional capacity.
Quantitative employment and income generation	The project will positively affect income generation, since the ownership of the carbon credits is considered an important income for the ceramic owners, as these resources allowed them to invest in the fuel switching and energy efficiency measures applied by the project. More information on the project's expected generation of emission reductions is available in the Project Design Document. Legal arrangements between the project participants indicate that the ceramic owners will have ownership of a portion of the carbon credits generated by the project. Documents on such legal arrangement are available for the Designated Operational Entity responsible for the validation of the project. Margins of error are not yet determined for this parameter, since no quantification on the chosen indicator (Voluntary Emission Reductions issued) was made at this point. Margins of error are likely to be very small (<5%) since the monitoring will be based on the amount of VERs issued, a data which is subject to third party verification and which will be published in the Gold Standard Registry.
Balance of payments and investment	Not applicable. This indicator will not be affected by the project.

Technology transfer and technological self-reliance	Not applicable. The project is not expected to significantly affect technology transfer and technological self-reliance.
---	--

SECTION G. Sustainability Monitoring Plan

No		01
Indicator		Soil condition
Mitigation measure		Monitoring the procedures related to the control and disposal of ashes
Chosen parameter		Procedures related to the control and disposal of ashes.
Current situation of parameter		The ceramics minimize the environmental impacts of the ashes. Major incidents or impacts were not observed due to the disposal of ashes.
Estimation of baseline situation of parameter		In the baseline situation, the ceramics try to minimize the environmental impact of the ashes by recycling it or selling it to third parties and raw material. However, proper procedures are not always observed and the potential for environmental impacts exists.
Future target for parameter		The aim of the project is to assure environmental impacts are avoided and a sustainable use and disposal of ashes is obtained. The project will apply the following indicator from Social Carbon Standard® ²³ : Social Carbon indicators for Ceramic Industry ²⁴ : Ashes. The target is to obtain a higher score than the estimated for the baseline situation. The scoring system of the Social Carbon Standard is described in Section F.2.
Way of monitoring	How	Interviews and meetings with stakeholders and ceramic personel on each ceramic.
	When	Annually
	By who	Project participants ²⁵

No	02
Indicator	Quality of employment
Mitigation measure	Monitoring actions of Health and Security on each ceramic.
Chosen parameter	Actions of health and security
Current situation of parameter	Following the project measures, the baseline kilns were replaced by more efficient ones, which also allow the control over atmospheric emissions. Besides, the project

²³ The SOCIALCARBON Standard is a certification adept at bringing demonstrable social, environmental and economic benefits to the stakeholders of carbon offset projects. More information at: <<http://www.socialcarbon.org/>>.

²⁴ Available at:

<http://www.socialcarbon.org/uploadDocs/Documents/Indicators_for_Industries_of_the_Ceramic_Sector_v8_English.pdf>. Last visit on 14/01/2011.

²⁵ Sustainable Carbon and/or Ecoeficiencia Will help the ceramic owners identify the corresponding scoring of the Project scenario, following the requirements of Social Carbon Standard.

		includes a certain level of automation in the logistics, improving the working conditions of employees responsible for feeding the kilns with bricks and fuels.
Estimation of baseline situation of parameter		The baseline situation includes some inefficient kilns that had no roofing or chimneys, thus not allowing the control of atmospheric emissions. These kilns exposed workers to significant levels of air pollution.
Future target for parameter		The aim of the project is to apply the following indicator from Social Carbon Standard®: Social Carbon indicators for Ceramic Industry: Actions of Health and Security. The target is to obtain a higher score than the estimated for the baseline situation. The scoring system of the Social Carbon Standard is described in Section F.2.
Way of monitoring	How	Site visits and interviews with employees and Managers of each ceramic.
	When	Annually
	By who	Project participants ²⁶

No	03
Indicator	Quality of employment
Mitigation measure	Monitoring the IPE use
Chosen parameter	IPE use
Current situation of parameter	The current use of IPE is generally good and the ceramics comply with local regulations in the subject. However, there is some resistance by part of the employees and the ceramics do not maintain consistent monitoring of the IPEs use. In the case of utilizing rice husk as a renewable biomass, the workers who load and feed the kilns are exposed to airborne particulate matter, which irritates eyes and lungs.
Estimation of baseline situation of parameter	No specific monitoring on the IPE use exists.
Future target for parameter	The aim of the project is to obtain higher usage rates of safety equipments by employees working with biomass and around the kilns. In the case of utilizing rice husk as a renewable biomass, the ceramic managers shall ensure workers are equipped with protection against airborne particulates in the form of respiratory masks, eye goggles, and gloves. The project also aims to improve the procedures for monitoring and management of the IPE use on the ceramics. One viable option that might be implemented in the future is to reward the employees (e.g. financially or

²⁶ Sustainable Carbon and/or Ecoeficiencia Will help the ceramic owners identify the corresponding scoring of the Project scenario, following the requirements of Social Carbon Standard.

		prizes) according to the frequency of IPE use
Way of monitoring	How	Site visits and interviews with employees and Managers of each ceramic. Ceramic managers shall use spreadsheets to control the use of safety equipments by employees. Employees shall provide their signatures on such spreadsheet each time they receive safety equipment.
	When	Annually
	By who	Project participants: Sustainable Carbon and/or Ecoeficiencia will help the ceramic owners monitoring the IPE usage rate through the use of spreadsheets.

No		04
Indicator		Access to affordable and clean energy services
Mitigation measure		None.
Chosen parameter		Total energy produced from renewable sources
Current situation of parameter		Following the project measures, part of the energy used for the productive process of the ceramics comes from renewable sources ²⁷ .
Estimation of baseline situation of parameter		0 (zero). In the baseline situation, both ceramics used exclusively fossil fuels (coal) for thermal energy generation.
Future target for parameter		The aim of the project is to allow the partial substitution of coal with renewable biomasses. Project Participants intend to obtain a growing fuel switch ratio over the crediting period. However, biomass shortages might occur due to unforeseen events. The target is to generate more energy from renewable sources than the baseline situation.
Way of monitoring	How	The amount of renewable biomass used by each ceramic will be monitored during the crediting period (through purchase invoice, delivery notes or other documents concerning the acquisition of biomass). By using default values of energy content, the project proponents will be able to determine the amount of renewable energy produced during each year of the crediting period.
	When	On a monthly basis. Data will be consolidated on an annual basis
	By who	Project Participants. Staff from each ceramic shall store information on biomass purchase and acquisition. Sustainable Carbon and Ecoeficiencia shall determine the amount of renewable energy generated during the crediting period.
Chosen parameter		Energy demand per production output

²⁷ More information is available in the Project Design Document.

Current situation of parameter		Following the project measures, the energy demand to produce 1,000 bricks has been reduced to around 0.0005 and 0.0012 TJ/ thousand bricks.
Estimation of baseline situation of parameter		0.014 and 0.019 TJ/thousand bricks (for Las Tapias 3 and Santander Ceramic respectively). In the baseline situation, the ceramics used to operate inefficient kilns that demanded great amount of fuels.
Future target for parameter		The project aims to reduce the energy demand per production output. A positive impact will be achieved in case the energy demand is lower than in the baseline situation.
Way of monitoring	How	The energy demand per production output will be monitored by determining the amount of energy (in TJ) needed to produce 1,000 bricks in each ceramic during each year of the crediting period. The total energy utilized (both from coal and renewable biomasses) will be determined by multiplying the amount of each fuel (in tonnes or m ³) by default values of energy content. This will be divided by the production output in the same period to determine the energy demand per thousands of bricks.
	When	On a monthly basis. Data will be consolidated on an annual basis
	By who	Project Participants. Staff from each ceramic shall store information on fuel usage and production output. Sustainable Carbon and Ecoeficiencia shall determine the energy demand per production output.

No		05
Indicator		Quantitative employment and income generation
Mitigation measure		None.
Chosen parameter		Voluntary Emission Reductions issued.
Current situation of parameter		The project has not issued Voluntary Emission Reductions (or other forms of carbon credits) so far.
Estimation of baseline situation of parameter		In the baseline scenario, the ceramics had no incentive to reduce their GHG emissions and consequently did not invest in reducing their emissions.
Future target for parameter		The project is expected to reduce 129,239 tCO ₂ e during the first crediting period. However, the actual emission reductions will depend on the amount of renewable biomass used. Hence, a positive impact for this indicator is achieved in case the project is able to generate and issue carbon credits.
Way of monitoring	How	The issuance of Voluntary Emission Reductions (or similar assets from the carbon market) will be monitored.

	When	Annually
	By who	Project Participants. Staff from each ceramic shall store information regarding the project operation, including fuel usage and production output. Sustainable Carbon and Ecoeficiencia shall determine the emission reductions resulting from the project.

No	06	
Indicator	Quantitative employment and income generation	
Mitigation measure	None.	
Chosen parameter	Revenues for biomass suppliers	
Current situation of parameter	Currently, ceramic owners control the payments to each of their fuel suppliers.	
Estimation of baseline situation of parameter	In the baseline, revenues were being exclusively destined to companies that provide mineral coal, which is a fossil fuel..Hence, the project will allow for a new revenue stream for companies and individuals that provide renewable fuels in the project region.	
Future target for parameter	The project is allowing the ceramics to use renewable biomass as fuel. Since these types of fuels are more expensive than coal, it is likely that total revenues to biomass suppliers will increase. Furthermore, these revenues are now being destined to suppliers of renewable biomass, which will encourage the use of this type of fuel in the region.	
Way of monitoring	How	Total revenues will be monitored by storing purchase invoices, receipts of sale and other documents concerning biomass acquisition.
	When	Annually
	By who	Project Participants. Staff from each ceramic shall store information biomass acquisition and costs. Sustainable Carbon and/or Ecoeficiencia shall calculate total revenues for biomass supplier for the Project.

No	07	
Indicator	Origin of renewable biomass	
Mitigation measure	Monitoring the origin of biomass	
Chosen parameter	Origin of renewable biomass	
Current situation of parameter	Following the project measures, the ceramics have begun utilizing renewable biomass as fuel. However, the current use is still low, representing less than 10% of the energy generation.	
Estimation of baseline situation of parameter	0 (zero). In the baseline situation, both ceramics used exclusively fossil fuels (coal) for thermal energy generation.	

Future target for parameter		The project aims to allow the complete switch from coal to renewable biomasses, though this may not be achieved during the first crediting period. The estimated fuel switch ratios are described in Section B.6.3 of the Project Design Document.
Way of monitoring	How	The origin of the renewable biomass will be assessed storing documents (receipts, invoices) from the biomasses providers, thus allowing to determine its origin. The biomasses shall be considered renewable as fulfilling definitions of renewable biomass approved by the CDM Executive Board ²⁸ .
	When	Annually
	By who	Project Participants. Staff from each ceramic shall store information regarding the biomass purchase and acquisition. Sustainable Carbon and Ecoeficiencia shall assess the source of biomass and confirm they comply with CDM EB definitions of renewable biomass.

No		08
Indicator		Competing uses of biomass
Mitigation measure		Monitoring the origin of biomass.
Chosen parameter		Biomass surplus
Current situation of parameter		Following the project measures, the ceramics have begun utilizing renewable biomass as fuel. However, the current use is still low, representing less than 10% of the energy generation. So far, only biomass residues (rice husks) have been used and evidences show there is a surplus of this type of biomass. More information is available in Section B.6.1 of the Project Design Document.
Estimation of baseline situation of parameter		0 (zero). In the baseline situation, both ceramics used exclusively fossil fuels (coal) for thermal energy generation.
Future target for parameter		The project aims to allow the complete switch from coal to renewable biomasses, though this may not be achieved during the first crediting period. The project aims to use predominantly biomass residues that are abundant in the project region, in a manner to avoid the possibility of leakage emissions.
Way of monitoring	How	National and international articles and databases will be assessed to determine the availability of each type of biomass used during the project operation.
	When	Annually
	By who	Project Participants. Staff from each ceramic shall store

²⁸ EB 23, Annex 18 – Definition of renewable biomass. Available at: http://cdm.unfccc.int/EB/Meetings/023/eb23_repan18.pdf.

		information regarding the project operation, including biomass usage. Sustainable Carbon and Ecoeficiencia shall assess the availability of biomass and determine the occurrence of leakage.
--	--	--

Additional remarks monitoring

Following Gold Standard Requirements, all non-neutral indicators of the Sustainable Development Matrix are included in the monitoring plan as well as all indicators to which mitigation measures are determined.

As required by the additional specific eligibility criteria detailed in Annex C of GS Toolkit v2.1, the Sustainability Monitoring Plan also includes the monitoring of parameters related to the usage of renewable biomass. Monitoring parameters are included in order to assure all biomass used in from renewable origin and to allow the assessment of leakage from the use of such biomass. These parameters are described in the above tables.

SECTION H. Additionality and conservativeness



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

Not applicable. The project has followed Gold Standard requirements of additionality. The project has applied the *Tool for the demonstration and assessment of additionality* (version 05.2) to demonstrate additionality.

H.2. Conservativeness

Conservativeness is assured by applying approved methodologies and methodological tools. The project applies the following methodology that is approved under the Gold Standard: “*Ecologically Sound Fuel Switch to Biomass with Reduced Energy Requirement*”, version 1.0. The demonstration of additionality is done by applying the “*Tool for the demonstration and assessment of additionality*”, version 05.2. The most recent version at the time of first submission are applied.

Conservativeness is also achieved by utilizing historical data from each project site for the ex-ante calculation of baseline and project emissions. Internal data is partially used to determine baseline emissions (such as the production of bricks in the baseline period), but are considered to be of a reliable nature since they are used to assess the productivity of each factory by the General Manager.

The consumption of fossil fuels during the baseline period was taken from suppliers invoices, a third party information which is used for commercial purposes (to determine financial compensations between the ceramic owners and the suppliers). Hence, this information is also considered to be reliable. During the project monitoring, the consumption of fuels (renewable biomasses) will also be taken from invoices or receipts or purchase from third party fuel suppliers. This set of data was chosen based on the prerogative of conservativeness and is considered to be the most reliable data available to determine baseline emissions and emission reductions.

Data from the most recent year before the project initiation is used. The baseline scenario is identified considering published data on the red ceramic sector in the project region (Colombia). More information is available in the Project Design Document. The project monitoring will also be based on third party information regarding fuel consumption (invoices or sales receipts), ensuring data on fuel usage is from a independent and verifiable source,

Project proponents have also assessed similar projects listed in the **Gold Standard Registry** to check if the similarity between the identified baselines. One project was identified²⁹ and the baselines are similar, i.e. the consumption of coal in inefficient kilns.

Given the above, the principle of conservativeness is complied with.

²⁹ The following Project is considered similar, since it includes similar measures in a red ceramic industry in Colombia: “Energy Efficiency and Partial Fuel Switch at Ladrillera Alcarraza”. More information available at: <http://www.co2.org.co/?IDPagina=114>. Last visit on 31/01/2011.

ANNEX 1 ODA declaration

There is no public funding involved in this project activity. The project does not receive Official Development Assistance. As per Section 1.2.5 of the Gold Standard v2.1 Toolkit, a written declaration of the project's Non-use of ODA was submitted to the Gold Standard Registry.