

BRAZILIAN RED CERAMIC FACTORIES INDICATORS

DOCUMENT REVISION HISTORY

Version	Description of the main adjustments	Review Date
01	First version.	20/08/2013
1.1	Post-Public Consultation	05/09/2013

1. Identifying the Project
2. List of potential social, economic and environmental impacts
3. List significant risks for the project
4. List of stakeholders affected by the project
5. Benchmarking
6. Indicators

1. Identifying the Project

Project name: Brazilian Red Ceramic factories Indicators

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2. List of potential social, economic and environmental impacts

Activity	Aspect	Impact	Effect		Comments/ Observation
			Beneficial	Adverse	
Fuel Switch	Use of renewable biomass	Greenhouse Gas Emissions Reductions	X		Monitored by the: Monitoring Report
Fuel Switch	Use of renewable biomass	Creation of new markets through use of renewable biomass	X		Monitored by the Carbon Resource: Indicator - Green marketing
Fuel Switch	Use of renewable biomass	Need for financial investment		X	Monitored by the Financial Resource: Indicator - Carbon credit investments
Carbon Credit Project	Commercialization of credits	Income generation for ceramics	X		Monitored by the Financial Resource: Indicator - Planning and control
Carbon Credit Project	Validation and Verification	Greater rigor in compliance with Brazilian environmental legislation	X		Monitored by the Natural Resource: Indicator - Brazilian environmental legislation
Carbon Credit Project	Application of the SOCIALCARBON Methodology	Encourages improvement in working conditions and product quality	X		Monitored by the Human Resource: Indicator: Additional employee benefits Indicator: Health and safety practices

					<p>Monitored by the Technological Resource:</p> <p>Indicator: Technological advances to improve efficiency of the production process</p> <p>Indicator: Technological advances to improve the general conditions of the working environment</p> <p>Indicator: Product quality</p>
Carbon Credit Project	Application of the SOCIALCARBON Methodology	Encouraging corporate social responsibility	X		<p>Monitored by the Social Resource:</p> <p>Indicator: Diversity</p> <p>Indicator: Community development</p> <p>Indicator: Employee satisfaction surveys</p> <p>Monitored by the Human Resource:</p> <p>Indicator: Training and capacity building programs</p>
Carbon Credit Project	Application of the SOCIALCARBON Methodology	Encouraging good environmental practices	X		<p>Monitored by the Natural Resource:</p> <p>Indicator: Environmental management</p> <p>Indicator: Voluntary environmental initiatives</p>

3. List of significant risks for the project

Activity	Aspect	Risk	Comments/ Observation
Fuel Switch	Use of renewable biomass.	Unavailability of renewable biomass—seasonality of production	<p>Monitored by the Natural Resource:</p> <p>Indicator: Biomass supply</p>

		may jeopardize the Project technically and financially.	
Carbon Credit Project	Poor financial results.	Project abandonment.	Monitored by the Carbon resource: Indicator: Project performance
Carbon Credit Project	Application of the SOCIALCARBON Methodology.	Upheavals—the expectations generated by the project stakeholders should be managed cautiously.	Monitored by the Carbon Resource: Indicator: Stakeholder consultation

4. List of stakeholders affected by the project

Present a list of stakeholders potentially impacted by the project.

Stakeholder	Brief description of how the project affects the stakeholders mentioned
Workers	The fuel switch will improve the way staff feed the furnaces and they will have access to new equipment. The project will also encourage potential benefits related to professional training, quality of life, and health and safety in the workplace.
Local Community	The project encourages measures to create a dialogue and improve relationships with the residents surrounding the project. It also promotes community benefits such as improving the local environment and investment in social initiatives.
Suppliers	The project creates demand for renewable biomass suppliers and necessary technological adaptations.
Local Authorities	The project promotes the sustainable development of the surrounding region and will possibly impact services and activities of local administrative authorities including: education, waste disposal, health, sanitation, environmental licensing.
Civil Society Organizations	The project may allocate resources and/or promote activities in partnership with civil society organizations, trade unions, religious entities and others.

5. Benchmarking

The following documents were used as a reference for the newest version of indicators:

- 1) Indicators for Ceramic Industries of the Sector, Version 8.2, June 2011. Available at: http://www.socialcarbon.org/wp-content/themes/socialcarbon/docs/Industries_Ceramic_Sector_v8.2_09_06_2011.pdf
- 2) Online system for Ethos Indicators - 2nd Generation. Available at: <http://www3.ethos.org.br/conteudo/iniciativas/indicadores/indicadores-ethos-de-2a-geracao/sistema-on-line-2a-geracao/#.Ug0TeZK1Frw> Last accessed on August 15, 2013.
- 3) Ethos-Sebrae CSR Indicators for Small and Medium Businesses. Available at: <http://www3.ethos.org.br/conteudo/iniciativas/indicadores/indicadores-ethos-de-2a-geracao/indicadores-para-micro-e-pequenas-empresas/#.Ug0Y8pK1Frw> Last accessed on August 15, 2013.

We also used the experience and expertise we have gained from applying the indicators to monitor the benefits of the carbon projects in the Ceramic Industry in Brazil. Below is the list of the reports used as a reference and inspiration:

- Alagoas
- SOCIALCARBON Report Point 0, Point 01 and Point 02: Cerâmicas Bandeira e Capelli.
- Amazonas
- SOCIALCARBON Report Point 0 and Point 01: Cerâmicas Rio Negro, Novicel e Fronteira.
- SOCIALCARBON Report Point 0: Cerâmica Nova.
- Ceará
- SOCIALCARBON Report Point 0, Point 01, Point 02, and Point 03: Cerâmica CGM and Assunção.
- Mato Grosso do Sul

- SOCIALCARBON Report Point 0: Cerâmica Tijolos Trevo.

- Minas Gerais

- SOCIALCARBON Report Point 0, Point 01, Point 02, Point 03 and Point 04: Cerâmica Santorini and Maracá.

- SOCIALCARBON Report Point 0 e Point 01: Cerâmica Ituiutaba.

- Pará

- SOCIALCARBON Report Point 0, Point 01, Point 02, Point 03: Cerâmicas Kamiranga, Cenol & Telha Forte and Menegalli.

- SOCIALCARBON Report Point 0, Point 01, Point 02 : Cerâmicas Barbosa and Cavalcante

- Pernambuco

- SOCIALCARBON Report Point 0, Point 01: Cerâmicas Buenos Aires and ICEPE

- SOCIALCARBON Report Point 0, Point 01, Point 02: Cerâmicas Kitambar, GE Teobaldo, Maguary, JL Silva, Bom Jesus and Barro Forte.

- Rio de Janeiro

- SOCIALCARBON Report Point 0, Point 01, Point 02, Point 03 and Point 04: Cerâmicas Nova Dutra, Vila Nova and Santa Izabel.

- SOCIALCARBON Report Point 0, Point 01, Point 02, Point 03: Cerâmicas Argibem, Vulcão, Santa Izabel, Guaraí, Itabira, GGP, Sul América and Olaria São Sebastião.

- São Paulo

- SOCIALCARBON Report Point 0, Point 01, Point 02 and Point 03: Cerâmica Irmãos Fredi.

- SOCIALCARBON Report Point 0, Point 01 and Point 02: Cerâmicas Luara, Tapajós, Lucevans, Nascente, Sol Nascente, União, Dois Companheiros, Por-do-sol.
- SOCIALCARBON Report Point 0 and Point 01: Cerâmica Panorama.
- SOCIALCARBON Report Point 0: Cerâmica Lara.
 - Sergipe

- SOCIALCARBON Report Point 0, Point 1, Point 02, Point 03: Cerâmica Velotex.
 - Tocantins

- SOCIALCARBON Report Point 0, Point 1 e Point 02: Cerâmicas Milenium and Reunidas.
- SOCIALCARBON Report Point 0: Cerâmica São Judas Tadeu.

6. Indicators

Social Resource: The networks, social duties, social relationships, relationships of trust, affiliations, and associations.

Indicator	Description	Evaluation Methods
Diversity	Evaluates the employment opportunities provided by the ceramic industry to historically excluded social groups, such as: women, ex-convicts, the elderly, the indigenous, the illiterate and the disabled.	RAIS, CAGED, Social inclusion policies and programs that value diversity
Community Development	Evaluates the existence of management practices that contribute to local community development.	Interviews and / or questionnaires. Complementary or supplementary evidence main include receipts, invoices, partnership contracts, statements.
Employee satisfaction surveys	Evaluates existing systems for employee feedback (questions, suggestions and complaints) and the measures taken in response to the feedback to make improvements.	Suggestion slips, suggestion box, employee satisfaction surveys, meeting attendance lists, photos.

Indicators	1	2	3	4	5	6
Diversity	There are currently no employees at the factory from minority groups and there are no plans to hire minorities.	There are currently no employees from minority groups, but the factory has made plans to hire minorities.	Less than 15% of employees belong to a minority group.	Between 15 ≤ 30% of employees are from minority groups.	More than 30% of employees are from minority groups.	In addition to more than 30% of employees being minorities, the factory presents initiatives or combat forms of discrimination.
Community Development	The factory has no initiatives/	The factory responds to	The factory supports community	In addition to scenario 3, the	The factory is formally involved in	In addition to scenario 5, the

	activities planned that benefit the local community.	occasional (not continuous) requests for assistance.	members or civil society organizations: - Regularly: one per month; OR - Significant: at least 10 different parties were benefited.	factory lends out equipment, space and/or provides manpower for activities that benefit the local community.	the development and implementation of social and/or environmental projects in partnership with public entities and/or civil society organizations.	factory has formalized planning in order to maximize their contribution to local community development, through survey with the community, establishing new partnerships, etc.
Employee satisfaction surveys	Lack of a consultation system for employee feedback.	There are attempts to implement an employee consultation system but it is not being properly utilized. Example: There is a suggestion box, but employees do not use it.	The system for employee consultation is being utilized, but is limited to a suggestion box.	In addition to scenario 3, the factory has implemented or is currently implementing one or more suggestions made by employees.	The factory promotes periodic satisfaction surveys among employees. Example: monthly meetings, book for documenting information, etc.	In addition to scenario 5, the factory has stipulated targets and timelines for solutions to employee complains.

Human Resource: The skills, knowledge, capacities for work and good health that people have. Taken together, these become fundamental for the successful pursuit of different strategies.

Indicator	Description	Evaluation Methods
Additional employee benefits	Evaluates the additional benefits provided to employees. Benefits required by law are not considered.	Questionnaires, invoices, receipts, statements, pay stubs and signed list by employees stating receipt of benefits.
Health and safety practices	Evaluates the existing health and safety practices in the factories, including the distribution and supervised use of PPE (Personal Protective Equipment) by all employees as well as health and safety programs. Note: Mandatory Programs: - PPRA: Program for Prevention and Environmental Risks. - PCMSO: Program for Controlling Medical and Occupational Health. - CIPA: Internal Commission for Accident Prevention. Required for factories with more than 20 employees. Complementary programs: - PPR: Respiratory Protection Program. - PPRPS: Program for Protection from risks in presses and Similar. - PCA: Hearing Conservation Program.	Participatory meetings, interviews, PPE control records, health and safety programs (CIPA PCMSO, PPRA), supervised EPI use (warnings, suspension), participant sign-in lists for lectures, contracts with health and safety professionals.
Training and capacity building programs	Evaluates whether the factory encourages and invests in the professional development of its employees.	Contracts, certificates, statements, planning controls.

Indicators	1	2	3	4	5	6
Additional employee benefits	The factory offers no additional benefits to employees.	Some employees receive an additional benefit.	All employees receive sporadic additional benefits, independent of	All employees receive an additional benefit monthly.	All employees receive more than one additional benefit monthly.	All employees receive more than one additional benefit monthly

			frequency.			and there are also award programs based on merit.
Health and safety practices	There is no control of PPE distribution. None of the health and safety programs required by law are being implemented.	PPE distribution is being controlled OR there is at least one health and safety program required by law being implemented.	The factory meets all legal requirements.	The factory meets all legal requirements and: (a) penalizes employees who do not properly use the PPE and/or (b) has signs encouraging the use of PPE in the factory and/or (c) The factory promotes lectures and events addressing issues related to health and safety in the workplace.	In addition to scenario 4, the factory contracts or has a technical professional or safety engineer on staff to ensure best practices in the company.	In addition to scenario 5, the factory develops complementary programs such as PPR, PPRPS and PCA; and/or The factory encourages physical activity or conducts activities for disease prevention.
Training and capacity building programs	The company has not invested in lectures nor professional training courses for staff.	The factory organized occasional lectures.	Training courses were offered to individual employees, but not to all employees.	In addition to item 3, the individual employees who were contemplated by the training courses replicate the knowledge via lectures to other employees; and/or	In addition to scenario 4, the factory has an internal campaign to encourage employees to complete their high school education; and/or	In addition to scenario 5, the Ceramic factory has established a strategic plan regarding training and capacity building programs.

				Regular lectures were offered to employees (at least two per semester).	The factory promotes a literacy program for youth and adults.	
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Financial Resource: Basic capital in the form of cash, credit/debt and other economic goods which are or may become available.

Indicators	Description	Evaluation Methods
Biomass supply	Evaluates the type, source and quantity of renewable biomass used as fuel, as well as the profile of suppliers.	- Questionnaires and monitoring report spreadsheets.
Planning and Control	Evaluates the existence of financial planning and controls in regards to carbon credits sold by factory.	- Planning and control spreadsheets
Carbon credit Investments	Evaluates whether proceeds from the sale of carbon credits was invested in factory improvements or activities that benefit the local community.	- Questionnaire and/or control spreadsheets

Indicator	1	2	3	4	5	6
Biomass supply	The factory has no control of the source and amount of biomass used; and/or the factory is using non-renewable fuel in the production process.	The factory only has partial control of the source and amount of biomass used.	The factory has total control of the source and amount of renewable biomass used, however 100% of the biomass comes from renewable wood.	The factory has total control of the source and amount of renewable biomass used and less than 50% of the fuel is coming from agro-industrial waste.	The factory has total control of the source and amount of renewable biomass used and more than 50% of the fuel is coming from agro-industrial waste.	The factory has total control of the source and amount of renewable biomass used and 100% of the fuel is coming from agro-industrial waste.
Planning and	The factory has no	The factory has	The factory has	The factory has	The factory has	The factory has

Control	organized controls of the income received from carbon credit sales nor the destination for proceeds.	partial control of the income received from carbon credit sales and the destination for proceeds.	organized controls of the income received from carbon credit sales, but control of the destination for proceeds is partial.	organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. However, the factory presents no future planning.	organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. However, the factory presents incomplete future planning.	organized controls of the income received from carbon credit sales, as well as of the destination for proceeds. The factory presents satisfactory future planning (timeline, budget, responsible involved and benefits).
Carbon credit Investments	The income generated by carbon credit sales was not invested in the factory nor in the community, or there are no organized controls of the allocation of proceeds.	Less than 20% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 20 and 40% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 40 and 60% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 60 and 80% of the income generated by carbon credit sales was invested the factory or in the community development.	Between 80 and 100% of the income generated by carbon credit sales was invested the factory or in the community development.

Natural Resource: The stock of natural resources (soil, water, air and environmental services (soil protection, maintenance of hydrological cycles, pollution sinks, pest control, pollination, etc.), from which resources for livelihoods are derived.

Indicator	Description	Method of evaluation
Environmental Management	Evaluates initiatives and structured/certified environmental management systems in regards to managing waste, water, air, soil, energy and nature conservation. Note: the use of renewable fuel shall not be deemed an initiative, since it is a prerequisite for becoming a carbon project.	Questionnaires, interviews, photos, site visits. Complementary or supplementary evidence main include receipts, invoices, partnership contracts, statements among other documents.
Brazilian environmental legislation	Evaluates whether the factory has a water grant (for those making use of a well or pond), - federal technical registry, operating license and license for clay extraction and is in compliance with the conditions established by the documents. It also evaluates the promotion and fulfillment of agreements with local stakeholders.	Licenses.
Voluntary environmental initiatives	Evaluates voluntary environmental initiatives that improve or establish new environmental assets and services, as well as those that raise environmental awareness of workers, their families and the surrounding community.	Questionnaires, interviews, invoices, partnership contracts, photos, and any document that evidence established projects/initiatives.

Indicators	1	2	3	4	5	6
Environmental Management	There are no environmental management initiatives.	There are up to two specific initiatives to prevent/reduce the main environmental impacts caused by the ceramic factory.	There are more than two initiatives to prevent / reduce the main environmental impacts caused by ceramic factory.	In addition the scenario 3, the factory is structuring an environmental management system in the company.	The factory has implemented a formal environmental management system.	The factory's environmental management system has been certified by a third party.

Brazilian environmental legislation	<p>The factory does not possess any of the following:</p> <ul style="list-style-type: none"> -operating license -license for clay extraction -water grant - federal technical registry 	<p>The factory only posses two of the following:</p> <ul style="list-style-type: none"> -operating license -license for clay extraction -water grant - federal technical registry 	<p>The factory only posses three of the following:</p> <ul style="list-style-type: none"> -operating license -license for clay extraction -water grant - federal technical registry 	<p>The factory posses all of the following:</p> <ul style="list-style-type: none"> -operating license -license for clay extraction -water grant - federal technical registry <p>However, they do not meet all the conditions established by them.</p>	<p>All licenses are up to date and all conditions established by them are being met.</p>	<p>In addition to the previous scenario, the factory collaborates with public administration and/or civil society organizations for cooperation with environmental projects.</p>
Voluntary environmental initiatives	<p>The factory is not involved in voluntary environmental initiatives.</p>	<p>The factory has implemented only one internal environmental initiative. Example: Planting ten tree saplings on factory grounds.</p>	<p>The factory has implemented more than one internal initiative or is showing continuity for an existing Initiative. Example: Periodic planting of saplings on factory grounds.</p>	<p>The factory has implemented more than one initiative or ongoing initiative whose benefits extend to workers families.</p>	<p>In addition to the previous scenario, the benefits of the initiatives also extend to community members.</p>	<p>In addition to the previous scenario, the factory promotes voluntary environmental initiatives with civil society organizations and/or public administration.</p>

Technology Resource: evaluates the conditions of access to new technologies, as well as the contribution of technology to economic development and diminished impact on the environment.

Indicator	Description	Method of Evaluation
<p>Technological advances to improve efficiency of the production process</p>	<p>Evaluates the general condition of infrastructure and machinery/equipment used in the production process, in regards to the following:</p> <ul style="list-style-type: none"> - Brick drying methods: The factory possesses a dryer that recycles the heat from kilns or a small drying furnace. - Efficiency of kilns: The factory utilizes continuous furnaces (ex: hoffman, mobile, tunel) or the factory uses intermittent kilns, but which are adapted to improve their efficiency. - Kiln temperature control: The factory keeps a record of thermocouples or uses digital controls. - Kiln feeds: The factory feeds kilns using automatic or semi-automatic equipment. - Production: The factory control and records production at different stages of the production process (eg sales, ceramic devices that enter in the kiln). - Infrastructure: During the period analysed, infrastructural improvements in the factory were carried out, for instance: construction/renovation of toilets, refectory, cloakroom lecture hall, among others. 	<p>Interviews with staff, receipts, contracts, photos.</p>
<p>Technological advances to improve the general conditions of the working environment</p>	<p>Evaluates the following general conditions of the working environment: cleanliness, noise, heat, lighting and appropriate signage.</p> <ul style="list-style-type: none"> - Cleanliness: There is not excess dust and debris (ex: broken bricks and iron) around the factory. - Noise: The factory applies programs for noise control that comply with legislation. - Heat: The factory uses equipment to reduce employee exposure to heat (eg fans, exhaust, etc). - Lighting: The factory uses equipment to maintain a well-lit working environment (ex: translucent tiles, LED or mercury lamps, etc). 	<p>Questionnaires and interviews, on-site visits, evidence of existing respiratory protection, hearing conservation, or other relevant programs.</p>

	- Appropriate signage: <ul style="list-style-type: none"> ✓ Warning signs indicating danger, or caution; ✓ Warning signs indicating inflammable liquids; ✓ Warning signs encouraging PPE use; ✓ Signs identifying and indicating location of fire fighting equipment. 	
Product quality	Evaluates whether the quality of the products was evaluated during the time period analyzed.	Internal or third party audit reports.

Indicator	1	2	3	4	5	6
Technological advances to improve efficiency of the production process.	The factory does not meet any of the characteristics described.	The factory meets one of the characteristics described.	The factory meets 2-3 of the characteristics described.	The factory meets 4 of the characteristics described.	The factory meets all of the characteristics described.	In addition to scenario 5, the factory has organized planning to improve general conditions of the production process.
Technological advances to improve the general conditions of the working environment	The factory does not meet any of the characteristics described.	The factory meets one of the characteristics described.	The factory meets 2-3 of the characteristics described.	The factory meets 4 of the characteristics described.	The factory meets all of the characteristics described.	In addition to scenario 5, the factory has organized planning to improve general conditions of the working environment.
Product quality	No efforts were made to analyze or improve product quality.	Samples of some products were evaluated by quality tests.	Samples of all products were evaluated by quality tests.	Some of the products have quality certification.	All products have quality certification.	In addition to scenario 5, the factory has an in-house quality lab.

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Carbon Resource: The type of carbon project developed, encompassing the project performance and methodologies utilized.

Indicator	Description	Method of evaluation
Stakeholder consultation	Evaluates the existence of a stakeholder consultation system (local community, workers, suppliers, local authorities, civil society organizations, and other social parties involved).	Informative letter, satisfaction questionnaire, occurrence book, etc.
Green Marketing	Evaluates whether the factory has marketing strategies geared towards selling their products based on highlighting socio-environmental practices.	Questionnaires, interviews and marketing material.
Project Performance	Evaluates the factory's perception about the results of the project, considering the generation and sale of carbon credits and also external aspects of project.	Questionnaires and interviews.

Indicator	1	2	3	4	5	6
Stakeholder consultation	During the time period analyzed, the factory did not conduct a stakeholder consultation.	During the time period analyzed, the factory conducted an informal (no records) stakeholder consultation.	During the time period analyzed, the factory conducted a formal (with records) stakeholder consultation; however negative comments were made regarding the project.	During the time period analyzed, the factory conducted a formal (with records) stakeholder consultation, and no negative comments were made regarding the project.	As well as the previous scenario, there are continuous means of communication with stakeholders.	As well as the previous scenario, the next consultation is being planned together with stakeholders.

<p>Green Marketing</p>	<p>The factory does not have marketing strategies based on their environmental practices.</p>	<p>The factory markets their environmental practices only using one means of communication. Example: magazine advertisement.</p>	<p>The factory markets their environmental practices using more than one means of communication. Example: magazine advertisement and billboard.</p>	<p>The factory has an established green marketing strategy, but still has not seen positive results.</p>	<p>The factory has an established green marketing strategy and sees positive results.</p>	<p>As well as the previous scenario, the factory has plans to invest in Green marketing.</p>
<p>Project Performance</p>	<p>The factory is very dissatisfied and threatens to abandon the carbon project.</p>	<p>The factory is dissatisfied, but does not plan to abandon the carbon project.</p>	<p>The factory is indifferent about the carbon project.</p>	<p>The factory believes the carbon project is something positive, but has complaints.</p>	<p>The factory is very satisfied with the carbon project.</p>	<p>In addition to the previous scenario, the factory considers the carbon project a competitive advantage for their business and encourages other factories to adopt similar practices.</p>