

TEMPLATE AND GUIDANCE FOR SUBMISSION OF NEW SOCIALCARBON® INDICATORS

DOCUMENT REVISION HISTORY

Version	Description of the main adjustments	Review Date
01	First version.	02/2010
1.1	Re-formatted	09/06/2011

Content

1. Identifying the Project
2. General orientation to Accredited Organizations
3. Guidance for elaboration of SOCIALCARBON indicators
4. List of potential positive and negative social, economic and environmental impacts
5. List significant risks for the project
6. List of stakeholders directly or indirectly affected by the project
7. Benchmarking
8. Indicators

1. Identifying the Project

Project name: Santa Catarina Composting Project

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2. General orientation to Accredited Organizations

- a. Inform the Ecologica Institute about all projects in which the SOCIALCARBON Standard is to be used, reporting if the establishment of new indicators is necessary.
- b. Submit all new indicators for prior approval by the Ecologica Institute.
- c. The Ecologica Institute will publish the approved indicators at www.socialcarbon.org for a 15 days consultation period.

3. Guidance to elaborate SOCIALCARBON indicators

- Indicators should be set out and used to detail the main benefits and impacts arising from the carbon offset project for the six resources of the SOCIALCARBON Standard.
- The number of indicators varies according to the need of project, although the SOCIALCARBON Team recommends at least three and a maximum of ten indicators for each of the six resources.
- Project developers should list and assess main:
 - Impacts
 - Risks
 - Stakeholders
 - Best practices or existing sustainable indicators for project activity.
- After listing all the relevant aspects of the project, the project developer must select those relevant to be monitored along the lifetime of the project and distribute them among the different resources of the methodology: social, human, financial, natural, biodiversity/technology and carbon.
- Next, the indicators receive scores ranging from the worst scenario (level 1) to the ideal situation (sustainable use of resource - level 6), according to the following guidelines:

Scores	Classification	Characteristics
1 and 2	Critical	Existence of irregularities; high socio-environmental risk; significant levels of social and environmental degradation; or situation of extreme hardship, which significantly compromises the quality of life of the population.
3 and 4	Satisfactory	Meets all the legal requirements relating to its activities; surpasses them through the adoption of good practices and voluntary actions in some cases; or the quality of life reaches the minimum acceptable standard but requires improvement.
5 and 6	Sustainable	Exceeds its legal obligations and/or common practice in the market, in many cases adopting the best-possible practices for the sector; or communities have reached a sustainable livelihood, with adequate access to material and social goods, are capable of recovering independently from situations of stress, and are not causing the deterioration of basic environmental resources through their activities.

4. List of potential positive and negative social, economic and environmental impacts

The description of social, environmental and economic impacts does not demand new research but must be based on other existent sources of information, for example: reports, results of consultation with stakeholders, similar projects or opinions of experts. If required by the national competent authorities, documents about the analysis of the environmental impacts and mitigation programs must be presented.

Activity	Aspect	Impact	Effect		Comments/Observations
			Benefic	Adverse	
Aerobic decomposition during composting	Reduction of GEE emissions and Hydrogen Sulfide	<ul style="list-style-type: none"> - Changes in air quality - Reduction of smell due to decomposition 	X		Carbon Resource: <ul style="list-style-type: none"> - Project Performance Technology Resource: <ul style="list-style-type: none"> - Maintenance of Composting Site
Aerobic decomposition during composting	Reduction of Liquid Waste	<ul style="list-style-type: none"> - Reduction of smells - Reduction of diseases agents - Reduction of soil pollution - Reduction of water pollution - Possibility of increasing liquid waste - Benefits for stakeholders 	X		Technology Resource: <ul style="list-style-type: none"> - Maintenance of Composting Site - Compost Quality Natural Resource: <ul style="list-style-type: none"> - Physical and chemical analysis of the compost Human Resource: <ul style="list-style-type: none"> - Diseases Agents Financial Resource:

					- Number of animals
Aerobic decomposition during composting	Production of minerals and water	Generation of compound	X		Financial Resource: - Generation and commercialization of compound
Carbon Credits Project	Commercialization of the credits	- Income generation for families involved in the project	X		Financial Resource: - Commercialization of carbon credits
Aerobic decomposition during composting	Technology changes for treating swine wastes	- Less leaching and percolation into water bodies - Diffusion of technology - Reduction of Health Risks for humans and animals	X		Human Resource: - Control of microorganism Natural Resource: - Physical and chemical analysis of the compost Technology Resource: - Qualidade do composto - Difusão de tecnologia
Aerobic decomposition during composting	Addition of value to the final product	- Income generation for families involved in the project	X		Financial Resource: - Generation and commercialization of the compost - Income generation due to carbon credits Social Resource: - Satisfaction of small farmers - Economic dependency

Installation of a mechanized composting system	Costs of the installation and substratum	- Demand of financial investments		X	Financial Resource: - Credit
Composting Project	Third part validation and verification	- Rigidity during evaluation of Brazilian legislation		X	Carbon Resource: - Validation/Verification Natural Resource: - Environmental Legislation
Composting Project	Empowerment	- Increase of autonomy for swine units(farms)		X	Social Resource: - Association/Cooperative - Economic Dependency
Composting Project	Application of Social Carbon Methodology	- Incitement to better practices - Stakeholders consultation		X	Human Resource: - Health and Safety Practices Natural Resource: - Environmental Management Carbon Resource: - Technological diffusion - Stakeholders consultation

5. List of significant risks for the project

For example: lack of funds, risk of scarcity of natural resources (biomass, water, degradation of soil, etc.)

Activity	Aspect	Risks	Comments/ Observations
Composting activity	Storms	Damage to the composting site structure. Example: Destruction of translucent tiles, impairing the compost due to contact with rain and wind	Technology Resource: - Maintenance of composting site
Composting Activity	Sawdust unavailability	Interruption of the compost generation. Example: High prices or unavailability of sawdust in the project region	Technology Resource: - Generation and commercialization of the compost
Swine	Reduction of food security	Quitting the project. Example: Swine is not profitable anymore, and the farmers prefer to invest in different economic activities	Social Resource: - Satisfaction of the small farmers - Financial Dependency

6. List of stakeholders directly or indirectly affected by the project

Present a list of stakeholders potentially impacted by the project.

Stakeholders	Description of how the Project affects stakeholders
Small Farmers	Regional swine farmers that are not participating of the project will be stimulated to use cleaner technologies for managing swine waste.
Local Communities	Local community will be benefited due to positive environmental impacts of the project (composting takes the place of the containment pond), such as reduction of smells, reduction of water and soil pollution, reduction of diseases agents.
Authorities	The third part verification will require inspection of Brazilian legislation accomplishment within project boundaries during the whole project life, supporting environmental agencies.
Suppliers	Project demands installation of new equipments, new inputs (sawdust) and technical assistance for composting site.
Integration Companies	Companies that possess their own farm/grange for supplying swine are going to be affected, because the partners are going to produce swine with sustainable practices and will have the possibility to increase their production.

7. Indicators

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

Indicator	Description	Evaluation Methods
Association and Cooperatives	<p>Evaluates if the swine farmer is involved in sector associations or cooperatives.</p> <p>Association: Group of two or more people that are organized for defending common interests, non profit with a legal personality (IE, 2011)</p> <p>Cooperative: Organization of, at least, seven physical people, united through cooperation and mutual support, with democratic and participative management, with common social and economic goals, which legal aspects are distinct from other societies (IE, 2011).</p>	<p>Documents</p> <p>Photos</p>
Economic Dependency	<p>Evaluates financial dependency of the swine farmer regarding his production, as well as the income generated by new activities introduced due to the compost production.</p>	<p>Documents</p> <p>Site visit</p>
Satisfaction of the farmer	<p>Evaluates the satisfaction of the farmer regarding the GEE emissions reduction project.</p>	<p>Interviews</p> <p>Questionnaires</p>

Indicator	1	2	3	4	5	6
Association and Cooperatives	Absence of associations or cooperatives; individualism is predominant.	There are associations and cooperatives in the region, though the swine farmer is not involved in any of them.	The swine farmer is involved in associations or cooperatives, though it was observed internal conflicts and/or lack of structure among these organizations.	The swine farmer is involved in associations or cooperatives, though his participation is not active.	The swine farmer is actively involved in associations and cooperatives.	In addition to the last item, the participation in associations or cooperatives resulted in positive benefits for the farmer's business.
Economic Dependency	The farmer depends only on the swine production and this activity brought him injuries.	The farmer depends only on the swine production and this activity brought him financial instability (some months the performance brought injuries and others, incomes).	The swine farmer depends on swine production and also carries on subsistence activities.	The swine farmer depends on swine production, which is stable.	The swine farmer depends on swine production, which is stable, and carries on: - Subsistence activities; OR - Depend on another economic activity.	The swine farmer depends on more than two economic activities (in addition to the swine production).
Satisfaction of the farmer	The swine farmer is not satisfied at all and is planning to quit: - The composting activity, AND - The carbon	The swine farmer is not satisfied at all and is planning to quit: - The composting activity, OR - The carbon markets.	The swine farmer is indifferent to the composting and/or the carbon Project.	The swine farmer is satisfied with composting, but it was observed difficulty to apply to carbon markets.	The swine farmer is satisfied with the carbon Project and composting.	In addition to the last item, the swine farmer share his experience and support other farmers to use the same technology.

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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
Control of Microorganisms	Evaluates biological characteristics of the compost regarding risks for human, animal and environmental health. The parameters evaluated are the presence and amount of the following: total amount of coliforms (bacteria that indicates contamination of the compost- CT), faeces coliform (bacteria commonly found in faeces-CF), faeces streptococcus (EF) and Salmonella (EMBRAPA, 2007; EMBRAPA, 2008).	Documents
Diseases Agents	Evaluate actions undertaken in order to control diseases within the swine farm boundaries. Mechanical Control: Actions hindering the Access to diseases agents and that avoid that the agents enter the plant site through gaps in the physical structure. (EMBRAPA, 2007; EMBRAPA, 2008). Chemical Control: Use of chemical products, such as anticoagulant, poison, among others Use (EMBRAPA, 2007; EMBRAPA, 2008). Biologic Control: Use of natural enemies of the diseases agents (EMBRAPA, 2007; EMBRAPA, 2008).	Documents Site Visit Interviews
Health and Safety Practices	Evaluates health and safety practices adopted in the swine farm.	Documents Site visit

Indicator	1	2	3	4	5	6
Control of microorganisms	There is no concern in undertaking biologic analysis of the compost.	The swine farmer is looking for resources to undertake the biologic analysis of the compost; currently barriers, such as prices, hinder this possibility	The biologic analysis is undertaken sporadically, though it presents irregularities regarding the patterns recommended by Public Health Agencies.	The biologic analysis is undertaken periodically, but the parameters analyzed do not accomplish Public Health Official Standards all the time.	The biologic analysis is undertaken periodically and the parameters analyzed accomplish Public Health Official Standards all the.	In addition to the last item, the analysis results are available for the public.
Diseases Agents	There is no concern regarding the control of diseases agents.	The swine farmer is trying to overcome barriers to undertake control of diseases agents (i.e: obtaining financial resources).	There are some initiatives to control diseases agents, though they are not sufficient; since presence of diseases agents was observed.	The control of diseases agents includes one of the following actions: mechanical, chemical or biologic.	The diseases agents control uses at least two kinds of actions: mechanical, chemical and biologic.	Há um programa de controle de vetores (roedores, moscas, etc).

Health and Safety Practices	<p>Safety equipments are not available. There are no hygiene and health practices regarding the swine unit.</p>	<p>Safety equipments are not available OR there are no hygiene and health practices regarding the swine unit.</p>	<p>The safety equipments are available, though they are used inadequately (i.e: there are no control of the use and withdraw). AND there are few actions geared towards Hygiene AND Health issues in the swine unit.</p>	<p>The safety equipments are available, though they are used inadequately (i.e: there are no control of the use and withdraw). AND there are few actions geared towards Hygiene OR Health issues in the swine unit.</p>	<p>The swine unit undertakes a program for disinfection and cleaning in order to guarantee a healthy environment OR all the safety equipments are available and are used correctly.</p>	<p>The swine unit undertakes a program for disinfection and cleaning in order to guarantee a healthy environment AND all the safety equipments are available and are used correctly.</p>
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Financial Resource: The basic capital in the form of cash, credit/debt and other economic goods which are available or potential.

Indicator	Description	Evaluation Methods
Number of Animals	<p>Evaluates the control of the swine unit regarding amount of animals and if this amount is increasing or decreasing during the Project cycle.</p>	<p>Documents Interviews</p>
Generation and commercialization of the compost	<p>Evaluates the amount of compost generated as well as its commercialization by the farmer.</p>	<p>Documents Interviews</p>
Commercialization of the carbon credits	<p>Evaluates the context of the carbon credits commercialization during the period analyzed by the report.</p>	<p>Documents</p>

Indicator	1	2	3	4	5	6
Number of Animals	There is no control of the amount of animals in the swine farm.	There was a significant decrease in the number of animals.	There was an insignificant decrease in the number of animals.	Amount of animals is the same as project baseline.	The amount of animals increased insignificantly after the project implementation.	The amount of animals increased significantly after the Project implementation.
Generation and commercialization of the compost.	There was no generation of compost.	The compost generated was not commercialized, since its characteristics were not adequate.	The compost was generated but it was not commercialized due to lack of buyers, or because it was used to supply internal demand.	A part of the compost was commercialized.	More than 50% of the compost was commercialized.	In addition to last item, demand for the compost increased.
Commercialization of the carbon credits	During current period, no credits were commercialized.	During current period, credits were already negotiated, though no sales were concluded.	During current period, less than 50% of the credits were sold.	During the current period, more than 50% of the credits were commercialized.	During the current period, all the credits were sold.	In addition to last item, the Project has its future credits already in process of negotiation.

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

Indicator	Description	Evaluation Method
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Environmental Management	Evaluates procedures for environmental management adopted by the swine farmer, including the organization and coordination of actions and documents regarding the swine activities: nutrition, water use, installations, use of the waste for other activities (EMBRAPA, 2007; EMBRAPA, 2008; SOCIALCARBON STANDARD, 2011b)	Documents Interviews
Environmental Legislation	Evaluates if the swine farm is in accordance with Brazilian environmental standards and legislation (Ex: Operational License, Forestry Legislation Requirements, etc) (SOCIALCARBON STANDARD, 2011b)	Documents
Chemical and Physical Analysis of the Compost	Evaluates if, during the period analyzed, chemical and physical analysis of the compost were undertaken.	Documents

Indicador	1	2	3	4	5	6
Environmental Management	None of the environmental aspects of the swine farm are considered in the management plan.	Less than 50% of the environmental aspects of the swine farm are considered through the implementation of some actions, but with no documentation.	More than 50% of the environmental aspects of the swine farm are considered through the implementation of some actions, but with no documentation.	There is a management system, though it is difficult to implement the actions.	There is an environmental management system efficient with periodic reports.	There is an environmental management system certified by third part.

<p>Environmental Legislation</p>	<p>The entrepreneur is not aware of the Brazilian environmental legislation.</p>	<p>The entrepreneur is aware of his legal duties, though he has no License, or the License was suspended since the demands were not accomplished.</p>	<p>During the period analyzed, the swine farm needs to accomplish a Term for Conduct Adjustment (in Portuguese, TAC); this means that the farm has some pre-defined deadline for accomplishing the environmental legislation.</p>	<p>There is an environmental license, though the entrepreneur faces difficulties to accomplish the demands. The License does not accomplish, temporarily, the demands.</p>	<p>There is an environmental license and all the demands are accomplished, though the entrepreneur faces difficulties to accomplish other Brazilian legislations (i.e: forestry code).</p>	<p>The swine farmer accomplishes all Brazilian environmental rules and legislation.</p>
<p>Chemical and Physical Analysis of the Compost</p>	<p>There is no concern in regard with chemical and physical analysis of the compost.</p>	<p>The swine farmer faces difficulties to obtain resources to undertake chemical and physical analysis of the compost. The farmer is looking for possible alternatives.</p>	<p>Either a chemical or a physical analysis of the compost is undertaken.</p>	<p>Chemical and Physical Analysis of the compost are undertaken sporadically.</p>	<p>Physical and Chemical analysis of the compost are undertaken periodically.</p>	<p>In addition to this, information regarding chemical and physical parameters analyzed are available to the public.</p>

Technology Resource: evaluates the conditions of access to new technologies, as well as its contribution to the economic development and diminished

Indicator	Description	Evaluation Method
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Compost Quality	Evaluates the level of dry matter, the concentration of nutrients (C, N, P2O5, K2O, Ca e Mg), and the presence of heavy metal; and if these parameters are adequate for maintenance of soil, water and vegetation quality.	Documents Interviews
Maintenance of the composting site	Evaluates if the maintenance of the composting site (Mechanic and Automatic Composting Unit) is carried out periodically, even by the swine farmer or by an independent Company.	Documents Interviews
Technology Diffusion	Evaluates the contribution of the project for technology diffusion, which comprises knowledge diffusion and implementation of new Technologies.	Documents Interviews

Indicator	1	2	3	4	5	6
Compost Quality	The quality of the compost was never assessed.	The quality of the compost was not assessed by laboratorial tests, however it was tested in crops and it was positive.	The compost is not in accordance with the specifications of water levels and levels of nutrients (C, N, P2O5, K2O, Ca e Mg).	The compost is not in accordance with the specifications of water levels OR levels of nutrients (C, N, P2O5, K2O, Ca e Mg).	The compost is in accordance with the specifications of water levels AND levels of nutrients (C, N, P2O5, K2O, Ca e Mg).	In addition to this, information regarding quality of compost is available to the public.

<p>Maintenance of the composting site</p>	<p>It was not observed maintenance practices in the composting site.</p>	<p>The swine farmer carries on practices towards the maintenance of the composting site, though he faces difficulties, for instance: bad smell due to lack of water or problems during aeration.</p>	<p>The swine farmer carries on practices towards maintenance of the composting site, with no difficulties.</p>	<p>The swine farmer carries on practices towards maintenance of the composting site, and sporadically, the maintenance is made by a specialized company.</p>	<p>The maintenance of the composting site is made regularly by a specialized Company.</p>	<p>In addition to last scenario, the equipments are calibrated according to established deadlines.</p>
<p>Technology Diffusion</p>	<p>The swine farmer is not committed with technology diffusion.</p>	<p>The swine farmer would commit to support technology diffusion, though he is not aware which procedures should be undertaken.</p>	<p>The technology diffusion approaches are informal.</p>	<p>Project contributes for technology diffusion through knowledge transfer, through formal methods.</p>	<p>Besides contributing with knowledge transfer, it also contributes for technology diffusion through the implementation of Technologies which differs from baseline scenario.</p>	<p>In addition to previous scenario, the project contributes for the technical capacitating and implementation and operation of these technologies.</p>

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

Indicator	Description	Evaluation Methods
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Project Performance	Evaluates the Project performance analyzed by the SCR in comparison with the emission reductions estimated by the PD. (SOCIALCARBON STANDARD, 2011b)	Documents
Stakeholders Consultation	Evaluates if stakeholders were informed and consulted regarding Project activity and its impacts, during the analyzed period.	Documents Interviews
Validation and Verification	Evaluates if the Project was partially or totally validated/verified by a third part and if the third part is accredited by the UNFCCC, as well as if the national and international Standards are being accomplished (SOCIALCARBON STANDARD, 2011b).	Documents

Indicator	1	2	3	4	5	6
Project Performance	0% of emission reductions were verified.	Very Low. From 1 to 25% of the emission reductions during the period were verified.	Low. From 26 to 50% of the emission reductions of the period were verified.	Reasonable. From 51 to 75% the emission reductions of the period were verified.	Great. From 76 to 95% of the emission reductions of the period were verified.	Excelent. More than 95% of emission reductions were verified.
Stakeholders Consultation	Stakeholders are not aware of the project activities.	Stakeholders were informally communicated, though they did not have Access to send comments and suggestions for the project developers.	Stakeholders were communicated through formal letters, and they had opportunity to send comments and suggestions to the Project developers.	In addition to the letters, other methods were carried out for engaging stakeholders, such as lectures, group activities, and others.	In addition to previous scenario, the project provides permanent channels for stakeholders consultation.	There are evidences that the stakeholders 'suggestions and comments were considered and realized by the project developer.
Validation/ Verification	The Project was not validated/verified by a	Only some aspects of the Project	The Project was validated/verifie	The Project was validated by a	The validation and verification are	The validation and verification are

	third part.	were validated/verified.	d by a third part, which is not accredited to UNFCCC.	third part, but it is registered in more than one GHG Program.	made by a DOE, accredited by the UNFCCC.	made by DOE, using methods and procedures recognized internationally.
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