

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
1.2	Language improvement	16/08/2013

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

1. Identifying the Project

Project name: Mavibayrak Biomass Power Plant Project

Contact responsible for indicators: Hande Sezer Yılmaz (hande.sezer@andoka.com) /Dr. Aslı Sezer Özçelik(asli.ozcelik@ekobil.com)

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2. General orientation for Accredited Organizations

- Inform the Ecologica Institute about all projects to which the SOCIALCARBON Standard will be applied.
- Submit all new indicators for prior approval by the Ecologica Institute.
- The Ecologica Institute will publish the approved indicators at www.socialcarbon.org for a 15-day consultation period.

3. Guidelines for SOCIALCARBON indicators

- Project developers should start by listing potential impacts, risks and stakeholders associated with the project activity according to the tables provided on the template.
- Project developers are invited to indicate the benchmarking used as sources and/or guidelines, including other SOCIALCARBON reports or indicators.
- After listing all relevant aspects of the project, the project developer must select which to be monitored through Indicators along the lifetime of the project and distribute them among the different resources of the methodology: social, human, financial, natural, biodiversity/technology and carbon.
- Each of the aspects selected shall be then detailed in an Indicator of this resource. The number of indicators will vary according to the needs of each project, but the SOCIALCARBON Team recommends a minimum of three and a maximum of ten indicators for each resource.
- Next, the indicators receive scores ranging from the worst scenario (level 1) to the best scenario (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 related to the activities; surpasses them through the adoption of good practices and voluntary initiative 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 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.

The Environmental Impact Assessment procedure for the Söke Mavibayrak Biomass Power Plant has been conducted in line with the Turkish legislation. The result of the screening process was the Project Description Report (PDR) which was submitted to the authorities. Based on the PDR the Provincial Directorate of Environment and Urbanism issued the "EIA Not Required" decision.

The Project Description Report describes potential environmental impacts of the plant and mitigation measures to avoid, minimize or compensate the adverse impacts during the construction and operation phases of the Project. This report also clarifies responsible parties for the implementation of the mitigation measures; the timing of implementation; monitoring and audit requirements. For a summary of PDR Please see (Document 1)

The following Table is a summary list for the social, economic and environmental activities

Activity	Aspect	Impact	Effect		Comments/ Observation
			Beneficial	Adverse	
Fuel Switch	Use of renewable biomass	Creation of new markets through use of renewable biomass	X		Monitored by the Carbon Resource: Indicator - Green marketing
Carbon Credit Project	Application of the SOCIALCARBON Methodology	Encouraging corporate social responsibility	X		Monitored by the Social Resource: Indicator: Diversity Indicator: Community development Indicator: Employee satisfaction surveys Monitored by the Human Resource: Indicator: Training and capacity building programs

Activity	Aspect	Impact	Effect		Comments/ Observation
			Beneficial	Adverse	
Fuel Switch	Use of renewable biomass	Need for financial investment		X	Monitored by the Financial Resource: Indicator - Carbon credit investments
Production of Dust	Shreding machines used to improve burning efficiency	Air quality		X	Monitored by the help of Natural Resource: Environmental Impact of the Project indicator
Production of Ashes	Renewable Biomass burning	The use of renewable biomass could increase the amount of ashes production		X	Monitored by the help of Natural Resource: Environmental Impact of the Project indicator
Collection of biomass residues from the croplands	Less use of pesticides	When the biomass residues are left to decay on the fields, the pests effect the next crop. Collection of biomass residues from croplands reduces the use of pesticides.	X		Monitored by the help of Natural Resource: Environmental Impact of the Project indicator

List of references when applicable:

(Please attach all reports, results of consultation with stakeholders, Environmental Impact Assessments or any other documents used as reference)

5. List of significant risks for the project

Present a 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	Risk	Comments/ Observation

Activity	Aspect	Risk	Comments/ Observation
Acquisition of renewable biomass	Renewable biomass exploitation	Scarcity of renewable biomass can be damaging to the project continuity	In the project area there is no scarcity of renewable biomass. A study was made in the VCS PD, although this aspect is not Monitored through the SOCIALCARBON Indicators
Logistic	Logistic in acquisition of biomass residues	The logistics in acquisition of biomass residues is a great challenge, especially considering the fact that long term agreements are not usual in this market	A study was made in the VCS PD, although is not Monitored through the SOCIALCARBON Indicators
Equipment operation	Technical issue of operating equipment	Technical issue of operating equipment with different fuels, requiring more care and maintenance, and also risking the quality of a productive process.	-
Renewable biomass market	Price of renewable biomass	The risk, in the long term, of increase on the price of renewable biomass	-
Ashes generation	Ashes residues	There is no renewable biomass quality standard, since these materials are residues. This situation could increase the amount of ashes produced.	Monitored through the SOCIALCARBON Indicators Natural Resources: Atmosphere Emissions indicator.

List of references when applicable:

<https://www.ebrd.com/cs/Satellite?c=Content&cid=1395277320618&d=Mobile&pagename=EBRD%2FContent%2FContentLayout>

6. List of stakeholders affected by the project

Present a list of stakeholders potentially impacted by the project.

Example:

Stakeholder	Brief description of how the project affects the stakeholders mentioned
Governmental Authorities:	The project activity will require being in close contact with local government authorities such as forestry department, and local representation of Ministry of Environment and Urbanization, local representation of Ministry of Energy and Natural Resources, local representation of the General Directorate of Agriculture and Söke district Municipality. These institutions shall be contacted regularly regarding environmental and other legal permits. Ministry of Forestry will be one of the main stakeholders, as they are frequently contacted regarding the supply of tree husks. Fire Department and Local Police are also stakeholders in case of emergencies.
Land owners	In order to acquire the land still needed for stock yards and placement of poles for the transmission lines, some land has to be either bought or rented from land owners.
Residents of the local communities, particularly the villages in close proximity to the project location	The project may emit dust and smoke, the residents of the nearby communities may be effected from these emissions.
Farmers	As the project uses cotton stems as fuel, local cotton farmers are one of the main stakeholders. They are impacted positively because the project owners help remove the stem residues, therefore removing the pests that may be harmful for the next crop.
Waste removal parties	They are collecting ash unless ash is given to a third party as a raw material.
Local residents interested in temporary or permanent employment with Mavi Bayrak Enerji (harvesting, plant operations)	The project is providing jobs to local inhabitants. Some work as unskilled and skilled workers some as security staff. If possible, the priority is given to the local inhabitants when recruiting to a position.
Local shops and service providers	Catering services are procured from a local caterer. Also the employees that are working in shifts are given tickets which they can use in local shops
<i>Internal Stakeholders</i>	
GIH (Global Investment Holding) employees and management (GIH with all its affiliates and subsidiaries, mainly GE)	The project will require new techniques to manage the biomass. All of the project employees are trained especially on occupational health and safety. The project also has a dedicated training budget for the training needs of the employees.
Temporary construction workers, subcontractors	The project will provide job opportunities to temporary construction workers and subcontractors.
Seasonal workers (harvesting)	During the harvesting season, the project will provide job opportunities to remove the cotton stems from the fields.

List of references when applicable:

(Please attach all reports, results of consultation with stakeholders, Environmental Impact Assessments or any other documents used as reference)

Draft STAKEHOLDER ENGAGEMENT PLAN GLOBAL BIOMASS PROJECT - CORPORATE AUDIT AND ENVIRONMENTAL AND SOCIAL (E&S) ASSESSMENT OF THE PROJECT

7. Indicators

a. SOCIAL

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

Name of the indicator	Brief description
Project's Social Impact	Evaluates if the project resulted in significant socio-economic impacts due to the fuel switching project, eg: <ul style="list-style-type: none"> - Jobs and/or income generation; - Working conditions improvements, and - Others
Stakeholders ¹ Involvement	Evaluates the stakeholders' involvement, like: suppliers, investors, government, and non-government organizations; through dialogue and engagement in developing policies, strategies and identifying risks related to the project.

¹ Based on: “*Diálogo e engajamento das partes interessadas (page. 19)*” (stakeholders) - Ethos 2008

Name of the indicator	Brief description
Involvement of the renewable biomass suppliers ²	Aims to assess if there are criteria for selection and evaluation of the renewable biomass suppliers for the Project activity; and if they consider criteria as: fulfillment with environmental legislation; engagement in environmental issues or climate change.
Relation with the local community	Evaluates the relationship among the project owner and the community in the surroundings of the project, as well as his contribution in social events and activities.
Regulatory Risk	Evaluates possible restrictions set on public entities (eg. Environmental entities) or new national and international legislations, which aim the greenhouse gases limitation, that may affect, directly or indirectly, the project.

Indicator	1	2	3	4	5	6
Social Impact of the Project	Significant negative social impacts. Or There is no knowledge.	There is not a significant relevance in negative social impacts.	There are no significant impacts.	Is expected that the project produce some positive social impacts, but there is no evidence if benefits are really happening.	Significant positive impacts, however not measured.	Measured and significant positive impacts.
Stakeholders Involvement	There is no dialogue or projects engagement with the stakeholders. OR Serious opposition relating to the project implementation.	Project disclosure to the stakeholders (eg. Lectures, workshops, or media), however without a structured plan (eg. punctual disclosures).	Project disclosure to the stakeholders, with a structured plan (eg. Integrated to an environmental marketing strategy). OR With a consultation	Project disclosure to the stakeholders, with a structured plan. and With a consultation process.	Beyond previous, there is a grievance mechanism to facilitate a platform for the stakeholders' feedbacks.	Stakeholder comments collected via the grievance mechanism is taken into consideration and included in the implementation of the project

² Based on: "Critério de seleção e avaliação de fornecedores (page. 48)" Ethos 2008

Indicator	1	2	3	4	5	6
			process.			processes. .
Renewable biomass supply chain	Selection and evaluation policy of suppliers, not existent.	Suppliers' selection is only based on quality, continuity, price and deadline.	There is a selection and evaluation policy of suppliers.	Selection and evaluation policy, which regards criteria relating to environmental compliance.	In addition, regulations on selection and evaluation of suppliers include extra-environmental criteria (e.g. adoption of environmental standards).	Beyond previous, suppliers are periodically evaluated to evidence conformity with the requirements.
Relation with the local community	The project owner is involved in conflict situations with the communities located around the project.	The project developer has no relations with the local community.	The project developer only sponsors in a random way sports and cultural events, or some philanthropic causes of the local community.	The project developer only sponsors in a random way sports and cultural events, or some philanthropic causes of the local community, and he has control about it.	In addition to the last item, the project owner promotes its own actions to benefit the local community (events, seminar, parties, and projects).	The project owner has plan and goals for the social contribution with communities located around the project.
Regulatory risk	The entrepreneur states that he doesn't have knowledge about the theme.	Probably, but uncertainties exists about its real dimension absences of formal risks	Probably, with some certainty about the real dimension of the impacts, but without adequacy measures.	Probably, with some certainty about the real dimension of the impacts, adequacy of current measures.	Indirect or highly unlikely.	Project is aligned with the restrictions imposed by public entities.

b. HUMAN RESOURCE

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.

Name of the indicator	Brief description
Human Capital to manage the carbon project	Assesses the capacity and capability of professionals involved in the carbon project.
Human Capital to implement the Project	Evaluates if the carbon project is subject to risks or bad performance due to project owners' lack of capacity

activities.	or availability of human resources for managing the operational activities or participating in the carbon project design activities.
Training on Climate Change ³	Assesses the entrepreneur's initiative in offering plans and training programs on climate change, including, strategies and frequency.
Actions of Health and Security	Evaluates the existence and performance of campaigns, leisure and goal and plans regarding to health and security.

Indicator	1	2	3	4	5	6
Human Capital to manage the carbon project	Responsible for the project implementation are not clearly designated.	Only external consultants are involved in the project management of carbon.	The professionals involved with the project don't have knowledge and experience in the environmental area.	The professionals involved with the project have some knowledge and experience in the environmental area, acquired in the company.	The professionals involved with the project have knowledge and experience in the environmental area.	The professionals involved with the project have knowledge and experience in climate change.
Human Capital to implement the Project activities	The carbon project has been impacted due to the difficult of some project owners in meeting regulatory requirements.	The carbon project has been impacted due to continuously fails of some project owners in management of operational activities.	Minor impacts on the carbon project due to lack of management systems or low capacity of human resources of some project owners.	The carbon project has not been impacted, but some gaps or weaknesses were identified regarding lack of management systems or low capacity of human resources of some project owners.	Competent human resources facilitating the design and certification process of the carbon project, but lack of comprehension about the carbon project.	Competent human resources and good comprehension about the carbon project.
Training on Climate Change	There is no capacity courses in climate change to the professionals involved with the Project.	Sporadic participation of the professionals involved with the project through lectures or external courses in climate	Programs of lectures and training courses on climate change only to employees involved with the project.	Programs of capacity courses in climate change to internal workers in different areas.	Program of courses and training on climate change that includes both internal and external workers (eg. suppliers and	The entrepreneur encourages or participates in research programs related to climate change.

³ Environmental education and awareness page 42 - ethos 2008

Indicator	1	2	3	4	5	6
		change.			partners).	
Actions of Health and Security	Occurrence of serious accidents in the last 12 months in the unit where the project takes place.	There were no serious accidents, but no campaign, lecture or training was done in the last 12 months in the unit where the project takes place.	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).	The project owner developed regular campaigns, meetings, training regarding occupational health and safety in the last 12 months.	In addition to the previous item, the project owner has goals and planning regarding the occupational health and safety with difficulties to execute.	Goals and planning regarding the occupational health and safety, with satisfactory execution in the unit where the project takes place.

c. FINANCIAL

Financial Resource: Basic capital in the form of cash, credit/debt and other economic goods which are or may become available.

Name of the indicator	Brief description
Renewable Biomass Supply	Evaluates the availability and diversity of biomasses and suppliers, considering the guarantee of fuel supplying.
Electricity Production	Evaluates the evolution of the project's electricity production capacity in the last year and its comparison with the planned production and the previous years' production values.
Expectation	Evaluates the existence of the project owner's expectations concerning the business in the next few years.
Competitive Advantage	Evaluates if the Company obtained some economic benefits (cost reduction, offering products or services of low-carbon emission) or image improvements due to the project developing or other actions focus on climate change.
Carbon market	Evaluates the situation of commercialization of the carbon credits' of the period, considering its chronological valorization.

Indicator	1	2	3	4	5	6
Renewable Biomass Supply	Biomass is found sporadically and the price changes upon sporadic bargain.	Only a few guaranteed biomass suppliers exist making it difficult to ensure continuous fuel supply.	There are guaranteed suppliers for only one type of biomass.	There are structured contracts for only one type of biomass but the contracts are for short periods.	There are structured contracts for more than one type of biomass but the contracts are for short periods.	Biomass supply is guaranteed via long term contracts with suppliers.
Electricity Production	The electricity production declined significantly in the last year (in comparison with the previous year and the planned production figures), causing big losses for the project owner.	The electricity production declined in the last year (in comparison with the previous year and the planned production figures), even though the losses were considered negligible for the project owner.	The electricity production remained stable (in comparison with the previous year and the planned production figures) in the last year.	The project produced at least 5% more electricity than the previous year, and the planned production figures were achieved.	The project produced at least 10% more electricity than the previous year, and the planned production figures were achieved.	The project produced at least 15% more electricity than the previous year, and the planned production figures were exceeded.
Expectation	Business retraction.	There are no expectations.	Business stability.	Business expansion, but without established plans.	Business expansion, with established plans.	Business expansion, with realization of viability studies of technical, financial and environmental aspects.
Competitive Advantage	The company already had economic or image loss, related to the absence of initiatives to mitigate climate change.	The project had a negative impact on the company's economic performance or in its image.	The project didn't have a significant impact on company's economic performance or image improvement.	The project didn't have a significant impact on company's economic performance; however the project makes part of a sustainability strategy of the company.	The project had a positive impact on the company's economic performance or in its image.	The project is aligned with business strategies related to the offering of sustainable products or services or low carbon emission.
Carbon market	Credits of the period are not yet commercialized.	Credits of the period are under negotiation.	Part of the credits of the period was commercialized.	Credits of the period were commercialized, but with prices lower than the period before.	Credits of the period were commercialized.	Credits of the period were commercialized, with prices higher than the period before.

d. NATURAL

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.

Name of the indicator	Brief description
Environmental impact of project	Evaluates if the project resulted in significant environmental impacts due to the fuel switching, as for example: <ul style="list-style-type: none"> - Reducing the pressure on the exploitation of natural resources; - Improvement of environmental conditions (air, soil, water, etc.); - Other.
Environmental Management	Evaluates the environmental management procedures adopted by the project owner, including the organization and coordination of actions and documentation such as impacts identification, monitoring, and emissions of periodic report, as well as the existence of a regular certification.
Environmental Legislation	Evaluates the accordance of the project (or the unit where the project takes place) with environmental laws and norms, including agreements with public authorities, such as environmental licenses and requested authorizations for installation and occupation of your project developer
Lawsuit Procedures	Evaluates if the project (or the unit where the project takes place) was involved with any lawsuit or administrative sanctions executed by public agencies, people, aiming the environment and human health protection or repair.
Energy	Evaluates the fuel used, as well the origin and control of the biomass.
Atmosphere Emissions	Evaluates the control over the atmospheric emissions involving the gases emitted during the productive process, except the greenhouse gases.

Indicator	1	2	3	4	5	6
Environmental impact of project	Significant negative environmental impacts. OR There is no knowledge.	Not significant relevance of negative environmental impacts.	There are no significant impacts.	Is expected that the project produce some positive impacts, but there is no evidence if benefits are really	Significant positive impacts, however not measured.	Measured and significant positive impacts.

Indicator	1	2	3	4	5	6
				happening.		
Environmental Management	There is no systemic approach involving the environmental aspects or disorganized structure, or there are no emissions of periodic reports.	Punctual approaches of environmental matters and there is no periodical report regarding these matters.	Gaps in the environmental management system or difficulties to implant and emit periodic reports.	Efficient Environmental Management System, with periodic emissions of reports, but with some difficulties.	Efficient Environmental Management System, not necessarily with certifications, with periodic emissions of reports and evaluation, including studies of risk evaluation and environmental impacts.	Certified Environmental System, with efficient structure and periodic reports and evaluations.
Environmental Legislation	There is no knowledge about the environmental legislation and norms.	The project owner knows the legal obligations, but has no environmental license, or it was suspended for not accomplishing the constraints.	The project owner has environmental license, but he has difficulties in keeping up to the requirements of the license. He may present some temporary unconformity.	The project owner has environmental license, but with difficulties to accomplish the constraints.	The project owner has environmental license according to the constraints and deadlines set.	Besides the previous item, the project owner has a systematic control of the licensing process not only based on national environmental legislation but also for the major EU environmental acquis.
Lawsuit procedures	Last year the project has faced public civil action due to the potential risk or effective damage of public health or environment.	Last year the project has faced judicial action by public agencies due to potential risk or effective damage of public health or environment. - The Company was convicted in the final stage.	Last year the company has received a warning from public agencies due to potential risks or effective damage for public health or environment.	The project: - Last year the project has received a warning by monitoring agency due to potential risk or effective damage of public health or environment. -Company has already rectified its situation.	Last year the company has faced a public civil action, judicial action or received a warning due to the potential risk or effective damage of public health or environment. -Company was not convicted.	Last year the project didn't face any public civil action, judicial action or warning due to the potential risk or effective damage of public health or environment.
Energy	The project owner uses native wood.	Partial substitution: The project owner uses native wood and renewable biomass.	Total substitution: The project owner uses renewable biomass, but they	Total substitution: The project owner uses renewable biomass, but they have difficulties to	Total substitution: The project owner uses renewable biomass without	In addition to the last item, the project owner has systematic procedures of

Indicator	1	2	3	4	5	6
			have difficulties to obtain, to prove the origin, the legality or the quantity of the biomass.	obtain, to prove the origin, the legality or the quantity of part of the biomass.	difficulties to obtain, to prove the origin, the legality or the quantity of the biomass.	renewable biomass control, with basis registered in an electronic way and the company publishes periodic reports.
Atmosphere Emissions	<ul style="list-style-type: none"> - There is no monitoring of the emissions. - There are no actions to control and reduce the emissions. 	<ul style="list-style-type: none"> - There is monitoring, but the project owner can't guarantee that it is in conformity with the legislations, and the monitored values are not guaranteed to be under the permitted emission limits. - There are no actions to control and reduce the emission. 	<ul style="list-style-type: none"> - There is no monitoring of the emissions. - There are actions to control and reduce the emissions with evident results, however the results are not measured. 	<ul style="list-style-type: none"> - There is monitoring, but the project owner can't guarantee that it is in conformity with the legislations and the monitored values sometimes are over the permitted emission limits. - There are actions to control and reduce the emissions with evident and/or measurable results. 	<ul style="list-style-type: none"> - There is monitoring and the project owner can guarantee that it is in conformity with the legislations, and the monitored values are under the permitted emission limits - There are actions to control and reduce the emission with evident results. 	<ul style="list-style-type: none"> - There is monitoring and the project owner can guarantee that it is in conformity with the legislations, and the monitored values are always under the permitted emission limits. - There are actions to control and reduce the emission with measurable results.

e. TECHNOLOGY

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.

Name of the indicator	Brief description
Technological improvements	Evaluates the introduction of new technologies due to project activities.
Boilers/Kilns efficiency	Evaluates the level efficiency of the boilers/kilns used in the productive process.
Maintenance of machinery	Evaluates the existence of maintenance and calibration of the equipments involved with the project.

Indicator	1	2	3	4	5	6
Technological improvements	There is no introduction of new technologies due to the project implementation.	There are introduction of new technologies, but these technologies are not considered incremental.	There are introduction of new technologies due to the project implementation, but is related to the acquisition of new equipment now available in the national market.	The project developer develops its own technologies or acquires it in the international market.	In addition to the previous item, the project developer invests in instruments that seek continuous improvement of its technological processes.	In addition to the previous item, there is a Policy of technological improvement that is developed and applied by the project developer.
Boilers/ Kilns efficiency	The project developer has only boilers/kilns with low efficiency.	The project developer has mixed composition of the boilers/kilns: - Boilers/kilns with low efficiency; - Boilers/kilns with average efficiency.	The project developer has composition of boilers/kilns with medium efficiency.	The project developer has boilers/kilns with mixed composition -Boilers/kilns with low efficiency; -Boilers/kilns with high efficiency.	The project developer has boilers/kilns with mixed composition, with predominant use of boilers/kilns with high efficiency.	The project developer has boilers/kilns with high efficiency.
Maintenance of machinery	The project developer does not perform maintenance or calibration of the equipment involved in the project.	The project developer takes corrective maintenance in the equipment involved in the project only as necessary.	The project developer maintains internal and periodic maintenance in the equipment involved in the project.	The project developer does external and periodic maintenance of the equipment involved in the project.	The project developer does preventive maintenance and relies on certified bodies to calibrate the measurement equipment.	In addition to the previous item, the project developer has a Policy related to the Maintenance of the Machinery.

f. CARBON

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

Name of the indicator	Brief description
Additionality	Evaluates if the reduced greenhouse gases emissions that were additional; this means, without the project, the reductions wouldn't happen. This item evaluates the tools used to confirm the additionally according to national and international standards.

Name of the indicator	Brief description
Emission Reductions Calculations & Monitoring	Evaluates the methodologies used to calculate the greenhouse gases emission reductions; the monitoring; and if it is appropriate to the national and international standards.
Validation & Verification	Evaluates the existence of partial or total validation/verification of the project by a third part, and if it is accredited by UNFCCC, and if the validation and verification procedures are in according to national and international standards.
Project Performance	Evaluates the project performance comparing the GHG emission reductions estimated in the PDD- Project Design Document and in the monitoring report - MR.
Project Integration with climate policy	<p>Aims to assess if the company adopts practices or other strategies for managing GHG emissions and whether the project is integrated with these actions.</p> <p>Examples of practices or strategies of management:</p> <ul style="list-style-type: none"> - Establishment of management mechanisms for control and reduction of GHG; - GHG emission inventories; - Mitigation projects or adapt to climate change, etc.

Indicator	1	2	3	4	5	6
Additionality	The project is not considered additional.	The project is additional but the additionally is limited to the project boundaries.	There are uncertainties about the additionality, partial or total.	The project is considered additional, but it doesn't use internationally and/or nationally recognized standards.	The project is considered additional, and it uses internationally and nationally recognized standards.	The project is considered additional according to the criteria stated in a methodology approved by the CDM Executive Board.
Emission Reductions Calculations & Monitoring	Absence of a specific methodology to calculate the emission reductions AND/OR the project does not have a monitoring plan, or	The project has an emission reductions calculation methodology limited to the project portions.	There are some doubts about the methodology consistence for calculation of the base line and monitoring plan.	The project possesses a consistent methodology to calculate the emission reduction and it possesses a consistent monitoring plan, approaching all the dimensions of the	In addition to the previous item, the methodology of the baseline and the monitoring plans are based on internationally recognized standards.	The project possesses a methodology to calculate the emission reductions, and a monitoring plan based in a methodology approved by the CDM Executive Board.

Indicator	1	2	3	4	5	6
	has only a partial or insufficient monitoring.			project.		
Validation & Verification	There is no validation or verification done by a third party.	Validation and verification by a third party is limited to parts of the project.	Validation/verification of the project is done by an independent third party, which is not registered in the UNFCCC (DOE ⁴) or other GHG program.	Validation/verification of the project is done by an independent third party, registered in a GHG program other than UNFCCC (DOE ⁵)	Validation/Verification is done by a DOE.	Validation/ Verification are done by a Designated Operational Entity, based on internationally recognized procedures.
Project Performance	Not successful. 0% of the carbon credits predicted for the monitoring period were effectively generated.	Very Low. From 01% to 25% of the carbon credits predicted for the monitoring period were effectively generated.	Low. From 26% to 50% of the carbon credits predicted for the monitoring period were effectively generated.	Reasonable: From 51% to 75% of the carbon credits predicted for the monitoring period were effectively generated.	Good: From 76% and 95% of the carbon credits predicted for the monitoring period were effectively generated.	Excellent: More than 95% of the carbon credits predicted for the monitoring period were effectively generated.
Project Integration with climate policy	Besides the fuel switching project, the company does not provide any further action related to climate change.	The fuel switching project is seen as an isolated action, but the company also develops other actions related to the climate changes.	The fuel switching project is regarded as part of a larger strategy in the context of climate change.	In addition to the previous item, the company prioritizes preventive actions and has an area or committee responsible for climate change.	In addition to the previous item, the company treats climate change like a transverse theme in its organization structure and includes climate change in its strategic planning.	The company develops new businesses (or new models to existing businesses), takes into account, since its conception, the climate change theme and opportunities related to it.

8. Bibliography

⁴ Designated Operational Entity.

⁵ Designated Operational Entity.

The development of these Indicators was based on:

COSTA, Alexandre B. **Desenvolvimento Sustentável e Regulação Ambiental no Setor Petróleo: Aspectos da legislação Ambiental no Brasil.** Universidade Federal do Rio de Janeiro - Instituto de Pesquisa e Planejamento Urbano e Regional. 2000.

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