

# GOLD STANDARD PASSPORT

## GOLD STANDARD PASSPORT

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## SECTION A. Project Title

Nairobi River Basin Biogas Project  
Passport version: 3.1  
Date: 19.02.2013

## SECTION B. Project description

The small-scale project activity aims to construct up to 10,000 domestic biogas units of mainly 2m<sup>3</sup> and 3m<sup>3</sup> gas storage capacities each for individual households of at least 2 zero-grazing cows in Nairobi River Basin. The geographical focus of the project activity is Kiambu County<sup>1</sup>, northwest of Nairobi City. Beneficiaries will be mainly dairy farmers and members of rural dairy Saccos (Saving Credit Cooperatives). The biogas units are fed with cow dung and produce renewable biogas for cooking and water heating purpose. The digesting process will also generate fertile slurry as a by-product, which can be used as manure for local agriculture (e.g. vegetable farming) and as regular income earning activity.

The project activity is saving greenhouse gas emissions by replacing non-renewable biomass (mainly fuel wood and charcoal) with renewable biogas. The project activity will also replace fossil fuels (LPG and Kerosene), however this will not be taken into account for conservativeness reasons.

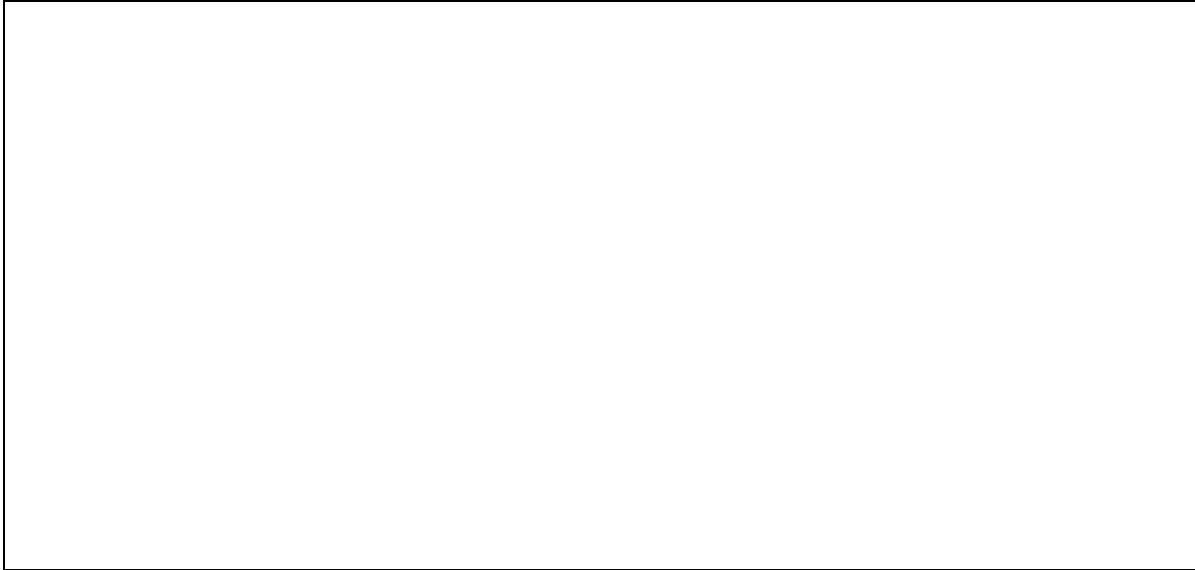
Carbon revenues will be the only source of subsidy financing. The applied CDM Methodology is AMS I.E. (version 04).

Start date of construction: 1 June 2010. Note: First couple of units were constructed during a pilot phase and commissioned in August 2010. Construction of these units were parallel to the organisation of the Stakeholder meeting, which was held in August 2010.

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<sup>1</sup> Former Kiambu district. New administration borders since 27.08.2010

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**SECTION C. Proof of project eligibility**

**C.1. Scale of the Project**

[See Toolkit 1.2.a]

*Please tick where applicable:*

Project Type	Large	Small
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	

**C.2. Host Country**

Republic of Kenya

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## C.3. Project Type

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Please justify the eligibility of your project activity:*

According to the current Gold Standard rules, the project is eligible because it generates renewable energy using renewable cow dung from zero-grazing dairy cows. Biogas serves as substitution for non-renewable fuelwood and charcoal, as well as for fossil fuels, such as LPG and kerosene.

The project falls under the Appendix B of the simplified modalities and procedures for small scale CDM project activities. CDM Methodologies: AMS I.E.

Pre Announcement	Yes	No
Was your project previously announced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>There has not been a public announcement of the project going ahead without CDM. As CDM is the only external source of funding, the project can not go ahead without CDM funding.</p> <p>Prior Consideration Form was sent to the DNA and UNFCCC on September 10, 2010.</p>		

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## C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	<input checked="" type="checkbox"/>
Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

## C.5. Project Registration Type

Project Registration Type	
Regular	<input checked="" type="checkbox"/>

Pre-feasibility assessment	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If Retroactive, please indicate Start Date of Construction  
dd/mm/yyyy: \_\_\_\_\_

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## SECTION D. Unique project identification

### D.1. GPS-coordinates of project location

	Coordinates
Latitude	1° 14' 45' S
Longitude	36° 39' 55" E



The project is implemented in many households in Nairobi River Basin. The administrative border is Kiambu county.

The coordinates of the first commissioned biogas units, located in Thogoto in the close proximity to Kikuyu town, are used to represent the physical location of the project activity:

### D.2. Map

[See Toolkit 1.6]

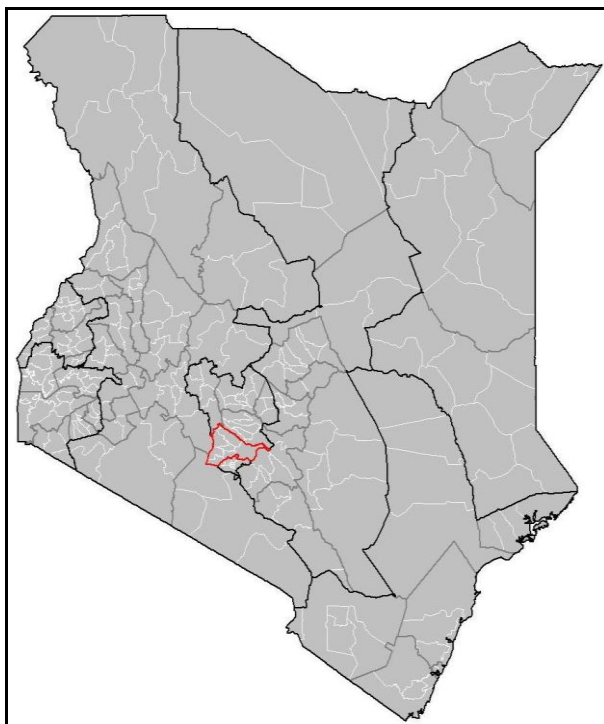


Figure: Kiambu county, Kenya

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<b>SECTION E.</b>	<b>Outcome stakeholder consultation process</b>
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<b>E.1. Assessment of stakeholder comments</b>
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Public participation for the project activity has formed an integral part of project planning; construction of biogas units would not be possible without a demand by the users. Every user voluntarily decides to implement the biogas unit and therefore decides voluntarily to participate in the project activity.

The Gold Standard Local Stakeholder Consultation was held on 21st August 2010 in Kikuyu Hospital/Thogoto, Kiambu District.

Time	Agenda	Presented by
09.00 – 09.15	Opening of the meeting/Introduction	David Karanja, SES Daniel Becker, atmosfair
09.15 – 09.30	Explanation of the project	David Karanja, SES; Daniel Becker, atmosfair
09.30 – 10.00	Questions for clarification	All participants
10.00 – 10.30	Tea Break	
10.30 – 11.30	Blind sustainable development exercise and Discussion on monitoring sustainable development	All participants
11.30 – 12.00	Closure of the meeting	David Karanja, SES
12.00 – 14.00	On site visit to commissioned biogas units	All participants

**1. Minutes of the meeting:**

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**Prayers:**

The meeting started with two hours delay at 11am with a word of prayers.

**Welcoming remarks:**

David Karanja of SES welcomed the stakeholders present and explained that the forum was for consultation and discussions to get the feedback from the stakeholders about the Nairobi River Basin Biogas project. He drew the attention of the stakeholders to the agenda of the meeting and called for their active participation.

**Introduction:**

After a short introduction of the project participants, the purpose of the meeting was explained as Consultation for Gold Standard, as well as the concepts of CDM and Gold Standard Registration with assistance from atmosfair. The stakeholders understood the importance of CDM registration and agreed that it would be wise to uptake it. The participation list was signed by all stakeholders.

**Explanation of the project activity**

David Karanja explained the main project activities: Goal of the project, project area, beneficiaries, construction and monitoring of units, training of masons and supervisors, advantages of biogas and requirements for households. Furthermore the stakeholders were updated on the progress of the pilot phase and further timelines were explained. During and after this session questions and comments arose which are summarized below:

**Question for clarification:**

**Q:** What added benefit will the biogas project using the Deenbandhu technology which is new bring to the market having in mind that there already exists other technologies in the market that have been tested over time and are working?

**A:** The Deenbandhu technology will be the cheapest biogas system introduced in Kenya. It is easy to construct and it uses locally available resources and manpower thus making it affordable to the average small scale zero grazing dairy farmers. The technology has been used in India for many years and has been financed through CDM on a number of occasions and has been shown to have a long life of up to 30 years. It's success rate is 98% as opposed to the prevailing technologies whose failure rate is well over 60%.

**Q:** In case that the farmers can't afford the cash payment what other forms of financing are available to them or have you organized?

**A:** We are currently holding talks with financial institutions around e.g. Equity Bank to see how we can assist the local farmer to afford the cost of putting up the biogas unit. Also the registration for CDM Gold Standard will ease the cost of construction

**Q:** What are subsidies and who gets them after the Gold Standard registration and at what rate?

**A:** Subsidy is a misnomer because the correct situation is trading in carbon credits. The

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farmer will therefore have a commodity - carbon credits – to sell in the international carbon market thus having proceeds that will be a contribution to the cost of the biogas unit.

**Q:** What is meant by carbon credit?

**A:** Carbon credits are obtained by evaluating how much less greenhouses gases are being emitted after the construction of the biogas units. Evaluation is done against set standards by the United Nations.

**Q:** Will not the introduction of subsidy through selling of the carbon credits destabilize the existing market of biogas construction by other competitors?

**A:** The introduction of more market players will bring competition and thus reduce a monopolistic practice prevailing in the country as of now. With this, biogas technology will be affordable to the consumers and in any case the introduction of CERs as a trading commodity is a source of income to the farmer and a motivation to maintaining the biogas unit.

**Q:** What exactly determines the amount of gas and is it possible to package the gas because there are cases when the gas produced is too much or is too little/ empty?

**A:** The amount of gas produced is determined by the amount of cow dung fed into the digester daily. The storage space in the digester is enough to store the amount of gas produced. In cases of excess gas it can be piped to other neighbours or can be used to run a generator to power irrigation pumps, chaff cutters or produce electricity but this can only be done using the large capacity biogas units.

**Q:** What is meant by monitoring and how do you plan to carry this out?

**A:** Monitoring will be done to ensure that the plants are working properly and that the end user is maintaining them as advised because the CDM Gold Standard requires that they run throughout. This will be done by trained supervisors and masons in case repairs and maintenance.

**Q:** Are there bigger capacities than 2 and 3m<sup>3</sup> and can the smaller ones already constructed be converted to accommodate larger capacities of dung?

**A:** Yes there are larger ones but are more costly. Feeding of the digester depends on its capacity and it can neither be under or over fed so as maintain them in a working condition. The conversion of small biogas units to big ones is not possible.

**Comment from Stakeholder:** It's good to inform the farmers on the available capacities so that they can decide on choice that suites them.

**Q:** If one doesn't have enough cow dung to fill the digester can the available dung be mixed with waste from other livestock e.g. pigs?

**A:** There is an analysis in the pipeline to see if that can be done.

**Q:** Other than gas, what other benefits does a biogas unit have?

**A:** The slurry that is produced is an organic fertilizer and it can be used to produce high value vegetables under organic farming. It can also be packaged and sold out to other farmers who

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do not have it but require it. The project also creates indirect job opportunities through sales. In the long term there will be a measurable conservation to the environment through reduced CO2 emissions and deforestation.

**Comment from Stakeholder:** Introduction of project is beneficial to small scale farmers as it reduces the cost of living and saves the environment. Good initiative.

**Q:** Do you plan to partner with other shareholders in the market like the Association of Biogas Constructors Kenya (ABCK) for the training of masons and supervisors and how many will be trained?

**A:** Maybe in future but for starters we will train them ourselves considering that this is a new technology and that statistics show that there has been 60% failure of other biogas projects in Kenya. So far we've trained 13 masons and 2 supervisors but we plan to add up the number as the project proceeds.

**Q:** How is sensitization being done to reach a larger population of small scale farmers and to educate them about the same?

**A:** During the baseline survey, the enumerators carried out the sensitization and creation of awareness. Furthermore awareness creation is always a part of the project activity. This consultation serves also as a multiplier for interested farmers.

### **Sustainable Development Assessment and Discussion on Monitoring Sustainable Development**

The blind sustainable exercise was explained to the stakeholders of the required assessment of the project prior to registration as a CDM Gold Standard initiative by atmosfair with assistance of SES. The sustainable indicators were reviewed and it was discussed on their impact and how they could be monitored in a practical and cost-effective way.

### **Closure of the meeting**

David Karanja thanked everybody for their participation and explained shortly the follow up of the project activity. The stakeholders gave their feedback on the consultation meeting held by filling out the evaluation form. Having no any other business the meeting ended at 1.30pm with a word of prayer.

### **2. Assessment of all comments**

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Concerns about new biogas technology in Kenya	No	Cheapest biogas system with durable and approved quality. Testing period serves to identify and mitigate implementation problems. Already existing CDM projects

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		with this technology.
Alternative financing possibilities	Yes	Currently talks with banks such as Equity Bank and other microfinance institutions such as MicroAfrica on micro credit financing.
Destabilisation of the existing market of biogas through CDM subsidies	Yes	Different approach: CDM revenues will mainly be used for incentivise proper operations, rather than directly subsidising construction costs. Introduction of the CDM project will also raise competition among biogas suppliers. The biogas project is currently limited on Kiambu District and does not have a national scope.
Inform farmers on the available capacities of digesters	Yes	Is already done. The size of the plant will be decided with the household, depending on cow dung and water availability as well as their needs and desires
Plan to partner with other shareholders in the market like ABCK	Yes	For future this will be considered as a good opportunity. But in the pilot phase the masons and supervisors will be trained by AFPRO/ own staff as Deenbandhu model is a new technology in Kenya.

### E.2. Stakeholder Feedback Round

The Stakeholder Feedback Round started on November 21, 2011 and closed on January 20, 2012.

The following steps gave stakeholders the opportunity to comment during the process of validating the project activity under the CDM and the Gold Standard:

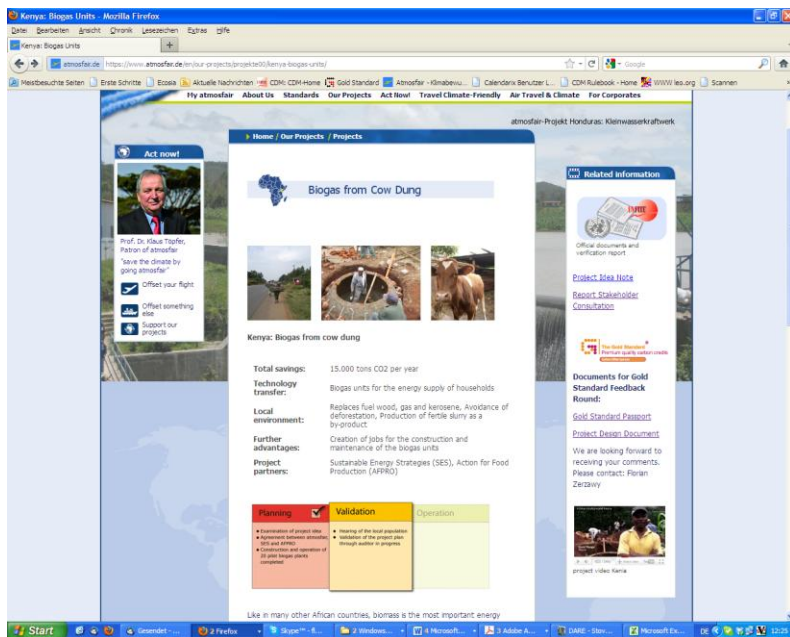
1. Stakeholders were informed (evidence provided to DOE) that they can comment

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on the PDD and the Gold Standard Passport available on the atmosfair website. In addition, PDD documents and the GS passport documents were also made available in SES's office in Nairobi.

2. Documents were available both at atmosfair's website and in the office of SES for two months.
3. Contact details for submitting comments were provided.

Screenshot of atmosfair project website:



SES also collects constant feedback when reaching out to potential biogas users- without feedback from these stakeholders SES would operate by ignoring the needs of its potential customers- something that would render its business unviable after a very short time. Hence stakeholders are provided with plenty of opportunity for feedback on the project.

## SECTION F. Outcome Sustainability assessment

### F.1. 'Do no harm' Assessment

Safeguarding principles	Description of relevance to my project	Assessment of my project risks	Mitigation measure

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		breaching it (low, medium, high)	
<p>1. The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses.</p>	<p>The project respects human rights as participation is completely voluntary. It respects personal freedom and liberty.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p> <p><b>Host country commitment to UN conventions on Human Rights:</b> International Covenant on Economic, Social and Cultural Rights New York, 16 December 1966 Kenya Accession(a), 1 May 1972 a International Covenant on Civil and Political Rights New York, 16 December 1966 Kenya Accession(a), 1 May 1972 a</p>	low	N/A
<p>2. The project does not involve and is not complicit in involuntary resettlement.</p>	<p>The project area is populated and cultivated since decades by Kikuyu. As the biogas units will be constructed in the households' compound, there will be nobody forced to resettle.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p>	low	N/A
<p>3. The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage</p>	<p>As the biogas units will be constructed in the households' compound, there will be no damage of cultural or religious heritage.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures</p>	low	N/A

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	are necessary.		
4. The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights	<p>All employees are employed by SES and have freedom of association and right to collective bargaining.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p> <p><b>Host country commitment to international conventions on labour standards and child Rights:</b> Convention on the Rights of the Child, New York, 20 November 1989. Date of signature 26 Jan 1990. Kenya is member of the International Labour Organisation</p>	low	N/A
5. The project does not involve and is not complicit in any form of forced or compulsory labour	<p>SES and the other involved parties (atmosfair) do not complicit in any form of forced or compulsory labour. All employees offering their services on a voluntary basis and are free to quit the services at any time without a menace or penalty.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p> <p><b>Host country commitment to international conventions on labour standards and child Rights:</b> Convention on the Rights of the Child, New York, 20 November 1989. Date of signature 26 Jan 1990. Kenya is member of the International Labour Organisation</p>	low	N/A
6. The project does not employ and is not	SES and the other involved parties (atmosfair) do not employ children.	low	N/A

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<p>complicit in any form of child labour</p>	<p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p> <p><b>Host country commitment to international conventions on labour standards and child Rights:</b> Convention on the Rights of the Child, New York, 20 November 1989. Date of signature 26 Jan 1990. Kenya is member of the International Labour Organisation</p>		
<p>7. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.</p>	<p>As the project area is homogenously populated by Kikuyu, there will be no pressure on ethnic conflicts. All interested dairy farmers, regardless of gender, race, religion, sexual orientation can participate in the project. The only requirement is to have at least two cows.</p> <p>Conclusion: Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p> <p><b>Host country commitment to international conventions on labour standards and child Rights:</b> Convention on the Rights of the Child, New York, 20 November 1989. Date of signature 26 Jan 1990. Kenya is member of the International Labour Organisation</p>	<p>low</p>	<p>N/A</p>
<p>8. The project provides workers with a safe and healthy work environment and is not complicit in exposing</p>	<p>As on every construction site, there is risk of accidents or injuries, but the construction works are simple and do not require heavy materials or tools. Therefore the risk of injuries or</p>	<p>medium</p>	<p>During training courses for masons and supervisors the safe construction</p>

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<p>workers to unsafe or unhealthy work environments.</p>	<p>accidents is low risk. The operation of the biogas units is safe cannot lead to any danger.</p> <p>Conclusion: Safeguarding principle is relevant to the project, as a safe and healthy work environment should obviously be in place in any construction activity. However, risks for health and safety are very low.</p> <p>Reference document: Training manual which was delivered during training courses to all masons and supervisors (File: Training manual)</p> <p><b>Host country commitment to international conventions on labour standards and child Rights:</b> Convention on the Rights of the Child, New York, 20 November 1989. Date of signature 26 Jan 1990. Kenya is member of the International Labour Organisation</p>		<p>of a biogas unit was demonstrated. A manual with special safety instructions for masons was created. The owners have been instructed in the safe operation of a unit. Supervisors monitor the operation constantly.</p>
<p>9. The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.</p>	<p>The biogas units will be fed with cow dung from zero-grazing cows and a certain amount of water in relation 50:50. The cows are fed mainly with nepia grass (<i>Pennisetum purpureum</i> Schumach). There are no other planting or agricultural activities included, as well as no usage of chemicals.</p> <p>Safeguarding principle is relevant to the project, but the natural conditions in the project area are suitable for using biogas.</p>	<p>medium</p>	<p>The Baseline survey showed that the majority of households have a water source in their compound and enough access to water for operating a biogas unit. Nepia grass is cultivated since years in the project area and ideally adapted to</p>

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	<p>Reference document: Training manual &amp; Results of baseline survey concerning environmental issues (File: Training manual &amp; Results Baseline Survey - Environmental issues)</p>		the local natural conditions.
<p>10. The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional local communities.</p>	<p>The project activity does not lead to any conversion or degradation of natural habits. Contrary the project itself reduces deforestation and contributes to the protection of forestry, water and soil resources. The biogas will be a renewable and clean energy source.</p> <p>Safeguarding principle is not relevant to the project, no mitigation measures are necessary.</p>	low	N/A
<p>11. The project does not involve and is not complicit in corruption.</p>	<p>As corruption is a widespread phenomena in many African countries it can occur as well in Kenya. But the project structures are not sensitive to corruption. Since the project is implemented directly through the local organization SES, and since local materials are used, the project implementation is not depending on bureaucratic processes, and hence is less prone to corruption.</p> <p><b>Host country commitment to international conventions on corruption:</b> Kenya has ratified the United Nations Convention against corruption on 9 Dec 2003</p>	low	N/A

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	<p>Conclusion:</p> <p>Safeguarding principle is relevant to the project, but only at very low level.</p> <p>No mitigation measures are necessary.</p>		
<b>Additional relevant critical issues for my project type</b>	<b>Description of relevance to my project</b>	<b>Assessment of relevance to my project (low, medium, high)</b>	<b>Mitigation measure</b>
N/A	N/A	N/A	N/A

### F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
Gold Standard indicators of sustainable development	If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-'	<p>Check <a href="http://www.undp.org/mdg">www.undp.org/mdg</a> and <a href="http://www.mdgmonitor.org">www.mdgmonitor.org</a></p> <p>Describe how your indicator is related to local MDG goals</p>	Defined by project developer	<p><u>Negative impact:</u> score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated</p> <p><u>No change in impact:</u> score '0'</p> <p><u>Positive impact:</u> score '+'</p>
<b>Environment</b>				
Air quality		Indoor air pollution will be		+

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		avoided through smokeless biogas. Improvement of health situation. Carbon dioxide savings due to displacement of fossil fuels and non-renewable biomass:	Respiratory problems	
Water quality and quantity	According to the mitigation measure of the safeguarding principle 9, a baseline survey showed that the majority of households have a water source in their compound and enough access to water for operating a biogas unit.	Protection of water resources through reduced deforestation. Daily usage of water with a biogas unit of 50 litres per day and unit.		0
Soil condition		Soil quality improvement through slurry utilization.		0
Other pollutants		N/A	N/A	0
Biodiversity		Reduction of pressure on natural habitats due to reduced deforestation. Some weeds might become extinct by the use of slurry.		0
<b>Social Development</b>				
Quality of employment	Mitigation measure of the safeguarding principle 8, includes training courses for masons and supervisors where safe construction of a biogas unit was demonstrated. A manual with special safety instructions for masons was created.	The masons and supervisors get permanent employment and job security. Currently 15 masons, 2 supervisors and 15 additional labour employed.	Report of trainings for masons	+
Livelihood of the poor		Reduced expenses for cooking fuels. Impossible		0

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		to reach the very poor. Savings of about 210 EUR per year are possible per household.		
Access to affordable and clean energy services		Availability of affordable and clean energy for most dairy farmers due to a innovative and cost-effective technology (< 500 EUR per unit).	Energy production of commissioned biogas units	+
Human and institutional capacity		Environmental education as a side effect.		0
<b>Economic and technical Development</b>				
Quantitative employment and income generation		Increased employment rates and income generation of masons, supervisors and unskilled labor (1 mason and 2 unskilled labour per unit).	List of Number of masons working for SES in the specific Monitoring period	+
Balance of payments and investment		Micro credit systems and alternative financing is possible.		0
Technology transfer and technological self-reliance		Transfer of an innovative and clean energy. The technology transfer takes place on two levels: First for the project participants (masons working for SES), who are trained in building biogas units. Second for the general public and end users who are trained in the operation and maintenance of biogas units. With every unit installed more end users will be included into the technology transfer.	Number of masons working for SES in the specific Monitoring period. Number of biogas units commissioned.	+

### Justification choices, data source and provision of references

Air quality	Justification for positive scoring: Combustion of fossil fuels, as well as fuelwood and charcoal
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	<p>causes health insurance and death. A strategy to reduce health and environmental impacts is shifting to biogas systems, which provide smoke-free energy:</p> <p><a href="http://www.who.int/heli/risks/indoorair/indoorair/en/index.html">http://www.who.int/heli/risks/indoorair/indoorair/en/index.html</a>;</p>
Water quality and quantity	<p>Justification for not-negative scoring: The training manual describes the daily requirement of water quantity: 50 litre per day and unit. As it can be seen in the results of the baseline survey (Document: Results baseline survey – environmental issues) the majority of household has enough water available and a water source at their farm. Furthermore according to different scientific publications deforestation has a negative impact on local water resources:</p> <p><a href="http://www.fao.org/docrep/010/a1598e/a1598e02.htm">http://www.fao.org/docrep/010/a1598e/a1598e02.htm</a></p>
Soil condition	<p>Justification for not-negative scoring: Biogas slurry as an organic fertilizer will improve the soil condition and displace chemical fertilizers with harmful effects on environmental resources such as water quality and biodiversity.</p> <p><a href="http://unapcaem.org/Activities%20Files/A01/Biogas%20Manure%20%28BqM%29%20%20a%20viable%20input%20in%20sustainable%20agriculture%20%E2%80%93%20an%20integrated%20approach.pdf">http://unapcaem.org/Activities%20Files/A01/Biogas%20Manure%20%28BqM%29%20%20a%20viable%20input%20in%20sustainable%20agriculture%20%E2%80%93%20an%20integrated%20approach.pdf</a></p>
Other pollutants	N/A
Biodiversity	<p>Justification for not-negative scoring: A number of publications address the negative impacts of deforestation on biodiversity. The farmers at the stakeholder consultation also addressed the extinction of indigenous weeds due to slurry application.</p> <p><a href="http://www.un.org/apps/news/story.asp?NewsID=36330&amp;Cr=fao&amp;Cr1">http://www.un.org/apps/news/story.asp?NewsID=36330&amp;Cr=fao&amp;Cr1</a>; <a href="http://www.wrm.org.uy/deforestation/Africa/Kenya.html">http://www.wrm.org.uy/deforestation/Africa/Kenya.html</a></p>
Quality of employment	<p>Justification for positive scoring: Quality of employment refers to changes compared to the baseline in:</p> <ul style="list-style-type: none"> <li>• Labour conditions, such as job-related health and safety</li> </ul> <p>Qualitative value of employment, such as whether the jobs resulting from the project activity are highly or poorly qualified, temporary or permanent.</p> <p>Masons will be trained to construct biogas units.</p>
Livelihood of the poor	<p>Justification for not-negative scoring: The benefits of domestic biogas for poverty reduction and sustainable development are described in various publications. Savings of fuel expenses and creation of new financial capital by making use of unused marginal land are among these. Furthermore the stakeholders addressed in the consultation, that the very poor need some additional financing possibilities to purchase livestock and a biogas unit.</p> <p><a href="http://www.fao.org/docrep/011/aj991e/aj991e00.HTM">http://www.fao.org/docrep/011/aj991e/aj991e00.HTM</a></p>
Access to affordable and clean energy services	<p>Justification for positive scoring: Dairy farmers are using CDM subsidies to purchase the Indian Deenbandhu biogas model, which is using local available resources and one of the cheapest systems currently on the world market. For more information see training manual and the website of AFPRO: <a href="http://www.afpro.org/">http://www.afpro.org/</a></p>
Human and institutional capacity	<p>Justification for not-negative scoring: Through the usage of renewable biogas, the ecological sensibility and the awareness of environmental destruction such as forest deforestation will be made conscious (Training manual).</p>
Quantitative employment and income generation	<p>Justification for positive scoring: The domestic biogas project will provide employment and business opportunities. The masons and supervisors will be paid per unit and have the possibility to self-determine their incomes. Local unemployed youth will have the chance to work as additional labor, mason and supervisor. Employment is accessible to everyone who is willing to learn and apply his skills (Documents: Training manual).</p>

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Balance of payments and investment	Justification for not-negative scoring: Beside CDM subsidies, alternative financing schemes are possible to meet the costs of the biogas unit. Negotiations with local banks and micro-credit providers are ongoing. The results will be published.
Technology transfer and technological self-reliance	Justification for positive scoring: The transfer of an innovative and clean energy will create more engagement in this sector. The stove burners which are currently imported from India will be manufactured locally. Furthermore Deenbandhu model can be adapted to local Kenyan conditions. This will increase commitment in renewable technologies. For Indian technology provider see: <a href="http://www.afpro.org/">http://www.afpro.org/</a>

### SECTION G. Sustainability Monitoring Plan

No	01	
Indicator	Air quality	
Mitigation measure	N/A	
<i>Repeat for each parameter</i>		
Chosen parameter	Status of respiratory problems	
Current situation of parameter	Around 41 biogas units of the Deenbandhu type were commissioned until February 2011.	
Estimation of baseline situation of parameter	No usage of biogas units and therefore no reduction of harming indoor pollution	
Future target for parameter	Construction of 10,000 biogas units under the project until 2015	
Way of monitoring	How	Question on questionnaire
	When	Will be performed according to the frequency specified in the PDD
	By who	Dedicated Monitoring team (see PDD)

No	02	
Indicator	Quality of employment	
Mitigation measure	Mitigation measure includes training courses for masons and supervisors where safe construction of a biogas unit was demonstrated. A manual with special safety instructions for masons was created.	
<i>Repeat for each parameter</i>		
Chosen parameter	Report on trainings for masons carried out up to the specific monitoring period	
Current situation of parameter	In the pilot phase, 14 masons and 13 additional labour were trained..	

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Estimation of baseline situation of parameter		No project and therefore no training for masons regarding the construction of biogas units
Future target for parameter		Depending on implementation plan, > 60 masons trained and sub-contracted by SES.
Way of monitoring	How	Training report and number of masons trained
	When	Once per Monitoring Period
	By who	Dedicated Monitoring team (see PDD)

No		03
Indicator		Access to affordable and clean energy services
Mitigation measure		N/A
<i>Repeat for each parameter</i>		
Chosen parameter		Thermal capacity of commissioned biogas units
Current situation of parameter		Thermal capacity of one 2 m <sup>3</sup> biogas unit is 3.35 kW (rating of the burner)- the commissioned biogas units from the pilot phase have thus a capacity of around 100 kWth.
Estimation of baseline situation of parameter		Targeted households do not use clean energy so far; they are using firewood, kerosene and LPG for cooking.
Future target for parameter		
Way of monitoring	How	Commissioning Database and calculation of thermal capacity according to equation provided in the PDD, Section B.2
	When	Once per Monitoring Period
	By who	Dedicated Monitoring team (see PDD)

No		04
Indicator		Quantitative employment and income generation
Mitigation measure		N/A
<i>Repeat for each parameter</i>		
Chosen parameter		Number of contracts with employees
Current situation of parameter		1 full time job in the field of education and demonstration for end-users, 3 supervisors for construction phases of the biogas plants, 1 operations director, 1 consultant for environmental issues (the creation of another director position is planned ). Due to financial reasons formal contracts do not yet exist.
Estimation of baseline situation of parameter		No project and therefore no contracts.
Future target for parameter		The SES management structure will be lean and masons will work as sub-contractors. However, there will be

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		someone responsible for accounting, and monitoring, Whether this is done by SES itself or outsources has not yet been decided.
Way of monitoring	How	Staff figure reported by SES
	When	Once per Monitoring Period
	By who	Dedicated Monitoring team (see PDD)

No		05
Indicator		Technology transfer and technological self-reliance
Mitigation measure		N/A
<i>Repeat for each parameter</i>		
Chosen parameter		Report on trainings for masons carried out up to the specific monitoring period. Number of biogas units commissioned (Note: all biogas units are manufactured locally)
Current situation of parameter		Around 41 biogas units of the Deenbandhu type were commissioned until February 2011.
Estimation of baseline situation of parameter		No usage of biogas units
Future target for parameter		Construction of 10,000 biogas units under the project until 2015
Way of monitoring	How	Commissioning Database,
	When	Will be performed according to the frequency specified in the PDD
	By who	Dedicated Monitoring team (see PDD)
Chosen parameter		Number of masons working for SES in the specific Monitoring period
Current situation of parameter		In the pilot phase, 14 masons and 13 additional labour were trained.
Estimation of baseline situation of parameter		No project and therefore no masons working for SES
Future target for parameter		Depending on implementation plan, > 60 masons trained and sub-contracted by SES
Way of monitoring	How	List of Number of masons working for SES in the specific Monitoring period
	When	Once per Monitoring Period
	By who	Dedicated Monitoring team (see PDD)

### Additional remarks monitoring

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## SECTION H. Additionality and conservativeness



This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### H.1. Additionality

Additionality demonstration in the PDD applies the additionality tool; therefore it is in line with Gold Standard requirements. Please refer to the relevant section in the PDD.

For the sake of completeness, the additionality argumentation as per the PDD is repeated here:

The additionality of the proposed project activity is demonstrated using the criteria outlined in Attachment A to Appendix B of the simplified modalities and procedures for small scale CDM project activities. While Project Participants are aware that the “Tool for the demonstration and assessment of additionality” (v6.0.0, EB 65) is only mandatory for large-scale projects, it is voluntarily applied in order to improve the clarity of the additionally assessment.

#### **Step 1: Identification of alternatives to the project activity consistent with current laws and regulations**

The output of the project activity consists of thermal energy from a renewable source that is used by users for cooking.

Sub-step 1a. Define alternatives to the project activity

Alternative scenario 1:

Project activity implemented as Non-CDM

Alternative scenario 2:

Continuation of current situation: Non renewable woody biomass and fossil fuels would continue to supply thermal energy for the users (baseline scenario).

Sub-step 1b. Consistency with mandatory laws and regulations

The alternative scenario “continuation of the current situation” is a realistic and credible alternative to the project scenario, since the use of woody biomass and fossil fuels for cooking is not against the laws and regulations of Kenya.

Next step:

According to the tool, Project participants can use either investment analysis (step 2) or

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barrier analysis step (step 3). They may, if they so wish, use both investment and barrier analysis step. Therefore, instead of an investment analysis, a barrier analysis is conducted.

### Step 3: Barrier analysis

Sub-step 3a. Identify barriers that would prevent the implementation of the proposed CDM project activity without CDM

The latest “Guidelines for objective demonstration and assessment of barriers” (EB 50, Annex 13) were taken into account when applying this step.

- Investment Barriers

According to the tool, investment barriers are

- *“For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. Similar activities are defined as activities that rely on a broadly similar technology or practices, are of a similar scale, take place in a comparable environment with respect to regulatory framework and are undertaken in the relevant country/region;”*

Assessment:

There is no commercial market for domestic biogas having gained any significant foothold in the country so far. According to a study commissioned by Shell Foundation around 2,000 biogas units were constructed in Kenya over the last decades, “though it is impossible to estimate what percent remain in working condition due to the dispersed and sometimes uncontrolled and informal nature of installations”<sup>2</sup>. Given a population of 38,610,097 in the 2009 census<sup>3</sup> and estimating very conservatively a household size of 10, penetration of biogas technology at household level would only be 0.05%, even if all biogas units were to function. Similar activities – installation of domestic biogas units - have only been implemented in a noteworthy amount with grants in the context of development programmes. According to a study by Shell Foundation, the history of biogas in Kenya and its relation to governmental or NGO activities is as follows:

“Mr. Tim Hutchinson built the first biogas digester in Kenya in 1957. This provided all of the gas and fertiliser that his coffee farm needed. He found the effluent (or “sludge”) an excellent fertiliser and that its application to his coffee trees greatly improved productivity. In 1958, he started constructing biogas digesters commercially, marketing the effluent as the main product with biogas as a useful by-product. Between 1960 and 1986, Hutchinson’s company (called Tunnel Engineering Ltd.) sold more than 130 small biogas units and 30 larger units all over the country. Hutchinson biogas digesters (some still working after fifty years) can be found in various parts of Kenya, although mainly in the so-called high productive areas (Central and Western Kenya). Mr

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<sup>2</sup>See for example: Biogas for Better Life (2007): Promoting Biogas Systems Kenya. A Feasibility Study (2007), p. 4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en), last accessed 18.02.2011

<sup>3</sup> See <http://www.knbs.or.ke/Census%20Results/KNBS%20Brochure.pdf>, last accessed 29.09.2011

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Hutchinson is retired, though still manufactures solar water heaters, and a limited number of biogas units. The German development organisation GTZ started promoting biogas in the middle to late 1980s in Kenya, in collaboration with the Ministry of Energy under the Special Energy Programme. In Kenya, the Special Energy Programme opted for the floating drum type, possibly because there was local steel manufacturing capacity. Approximately 400 biogas units were built under the Special Energy Programme directly, though it is likely that the training and promotional activity spurred entrepreneur masons to build on an individual basis. Over the last fifty years, biogas technology has been promoted by national and international organisations (both Government and NGO) and they, together with trained Kenyan technicians have built hundreds of biogas digesters in the country. However, earlier evaluations showed that, unfortunately, a high proportion of digesters appear to operate below capacity, are dormant or in disuse after construction because of management, technical, socio-cultural and economic problems. Consequently, biogas technology has acquired a less favourable reputation and the penetration rate of biogas technology in the country remains very low. It is estimated that up to 2000 units have been installed in total, though it is impossible to estimate what percent remain in working condition due to the dispersed and sometimes uncontrolled and informal nature of installations. The majority of systems were installed in the 1980s and 1990s.”<sup>4</sup>

- *“No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.”*

### Assessment:

Kenya is rated B+ by rating agency Standard & Poors, which means investments are considered as “highly speculative”<sup>5</sup>. For S&P, a bond is considered investment grade if its credit rating is BBB- or higher. Bonds rated BB+ and below are considered to be speculative grade, sometimes also referred to as “junk” bonds<sup>6</sup>. According to World Bank Doing Business Global Ranking, in 2011 Kenya is the 98th best country to do business in the world<sup>7</sup>. Please note that major investment opportunities are seen in the agricultural, tourism, manufacturing, wholesale & retail, business process outsourcing and financial services sector, according to Kenya Investment Authority<sup>8</sup>, whereas the proposed project activity is a household-based, multi-site (hence dispersed) biogas for cooking project, not fitting into one of these categories. However, due to the CDM incentive associated with this project, Sustainable Energy Strategies Ltd. (SES), a small start-up with so far limited resources (as evidenced by the DOE during the on site visit) could contract the carbon offset organization atmosfair gGmbH<sup>9</sup>, providing upfront finance in return for future CERs. The future CER revenues are the only significant revenue stream for the investor

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<sup>4</sup> Biogas for Better Life (2007): Promoting Biogas Systems Kenya. A Feasibility Study (2007), p. 4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en), last accessed 18.02.2011

<sup>5</sup> Source: [http://en.wikipedia.org/wiki/Credit\\_rating](http://en.wikipedia.org/wiki/Credit_rating), last accessed 22.09.2011

<sup>6</sup> . Source: [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_credit\\_rating](http://en.wikipedia.org/wiki/List_of_countries_by_credit_rating), last accessed 22.09.2011

<sup>7</sup> Source: <http://www.doingbusiness.org/rankings>, last accessed 22.09.2011

<sup>8</sup> Source: [http://www.investmentkenya.com/index.php?option=com\\_content&task=view&id=133&Itemid=18](http://www.investmentkenya.com/index.php?option=com_content&task=view&id=133&Itemid=18), last accessed 22.09.2011

<sup>9</sup> For further information, please consult [www.atmosfair.org](http://www.atmosfair.org). Annual report including financial statement can be downloaded there.

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atmosfair in the project. The Annex I party investor which could be secured at time of registration of this project (atmosfair gGmbH) however only provides upfront finance for the CDM related costs plus implementation costs and user subsidy<sup>10</sup> after entering into contractual relations with SES to ensure CERs will be generated and delivered to the investor<sup>11</sup>

Without the CDM scheme, the significant investment cost and development cost would have prevented SES from pursuing project implementation and the current system with high GHG emission would continue to be practiced.

The proposed project activity is hence facing tremendous investment barriers which could only be overcome by securing finance from companies with CDM experience which are able to assess the potential and risks of the CDM project activity and therefore provide risk capital to SES in order to enable SES to start implementing biogas units.

### - Technological Barriers

According to the tool, technological barriers are:

- *“Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance;”*

atmosfair, being a CDM carbon offset organization which only finances CDM Gold Standard projects, is supporting a similar CDM registered biogas project in India, the Bagepalli CDM biogas programme. When contact with SES was established, it was atmosfair’s interest to make a CDM project with domestic biogas also possible in Kenya. Since the technology design is from India, and despite other biogas initiatives there is a lack of skilled and/or properly trained labour to construct the specific Deenbandhu technology. For this reason, SES and atmosfair decided to second trainers from AFPRO to Kenya to train masons in construction of biogas units, the first time in July 2010 for a period of 2 months. In 2011, AFPRO trainers came for a second, long-term stay, financed upfront by the CDM investor atmosfair in return for future CERs<sup>12</sup>. The training and qualification of masons is an essential part of the CDM project, and incurs significant costs which cannot be covered by the users as the units must be affordable to them. Carbon finance provided upfront is hence also used to continue capacity building in the project area, and SES will continue to recruit trainers from AFPRO as required for project progress.

- *“Risk of technological failure: the process/technology failure risk in the local*

<sup>10</sup> As the objective of the proposed activity is to provide affordable, cost-effective biogas technology to users, they therefore receive a subsidy (projected to be around 100 Euro per unit) stemming from carbon finance, to lower the initial cost burden of the user. Note: The amount of subsidy which is paid to the end user may change over time and depends, i.a. from achieved emission reductions and the price carbon credits can be traded for. Therefore the only relevant criteria for assessment is the fact that there is a subsidy stemming from carbon finance, regardless of its amount.

<sup>11</sup> See: Cooperation agreement/ Term Sheet between atmosfair and SES

<sup>12</sup> Evidence provided to the DOE

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*circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information;”*

The biogas technology, as it is not widespread in the country, has a high risk of technological failure compared to traditional cooking places and even modern technology such as LPG cookstoves.

From the experience made in Kenya so far, the main problems are<sup>13</sup>

- poor design and construction
- failures in the systems (functional units are operating below capacity)
- Inadequate support after installation
- lack of technology awareness
- missing standards/ lack of quality control (biogas digester system and operation requirements)

This again highlights the need for a mechanism such as the CDM which binds carbon finance to actual technological success, and thus overcomes the weaknesses of traditional development finance which did not create any incentives to follow up on the operations after the programme phased out after few years.

- Prevailing Practice

Prevailing practice is the use of firewood, charcoal, kerosene and LPG for cooking (the baseline scenario). Hence, end users are not changing from themselves to this new technology. The proposed project activity is the first carbon financed domestic biogas project in Kenya. See Step 4 for further assessment.

Sub-step 3 b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives

- The identified barriers would prevent alternative scenario 1, project activity implemented as non-CDM, because the identified barriers can only be overcome by the CDM. Therefore, this alternative is removed from further consideration. However, the barriers would not prevent the alternative scenario 2, since the identified barriers only apply to the specific technology. For the traditional cooking with firewood, charcoal, Kerosene and LPG no such barriers exist, which is evident by the fact that they are widespread in the region and Kenya<sup>14</sup>

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<sup>13</sup> GTZ (2009): Final Report. Analysis of the Market Potential for Domestic Biogas in Rural Kenya, p. 22. (Document provided to DOE)

<sup>14</sup> Ministry of Energy: STUDY ON KENYA'S ENERGY DEMAND, SUPPLY AND POLICY STRATEGY FOR HOUSEHOLDS, SMALL SCALE INDUSTRIES AND SERVICE ESTABLISHMENTS (Final Report, 2002, prepared by Kamfor Ltd). estimates regular firewood use by 67% of households in Kenya (89% of rural households), 47% of households are using charcoal, 92% Kerosene (mainly for lighting), and 8% LPG. (p. xiii)

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According to the tool, "if both Sub-steps 3a . 3b are satisfied, proceed to Step 4 (Common practice analysis)."

### Step 4. Common practice analysis

Sub-step 4a: Analyze other activities similar to the proposed project activity:

Requirement as per the tool:

*"Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Projects are considered similar if they are in the same country/region and/or rely on a broadly similar technology, are of a similar scale, and take place in a comparable environment with respect to regulatory framework, investment climate, access to technology, access to financing, etc. Other CDM project activities (registered project activities and project activities which have been published on the UNFCCC website for global stakeholder consultation as part of the validation process) are not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region."*

Analysis of other activities that are operational and similar to the proposed project activity in terms of technology, scale, financial and regulatory environment:

There is no commercial market for domestic biogas having gained any significant foothold in the country so far. Similar activities have only been implemented with grants in the context of development programmes<sup>15</sup>. According to a study commissioned by Shell Foundation around 2,000 biogas units were constructed in Kenya over the last decades, "though it is impossible to estimate what percent remain in working condition due to the dispersed and sometimes uncontrolled and informal nature of installations"<sup>16</sup>.

The main reasons for the slow uptake of the technology and its limited success are:<sup>17,18</sup>

- high costs of installing the systems
- lack of capacity to install high volumes of biogas (need to increase the number of technicians/artisans)

<sup>15</sup> See for example: Biogas for Better Life (2007): Promoting Biogas Systems Kenya. A Feasibility Study (2007), p. 4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en)4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en), last accessed 18.02.2011

<sup>16</sup>Ibid Biogas for Better Life (2007): Promoting Biogas Systems Kenya. A Feasibility Study (2007), p. 4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en), last accessed 18.02.2011

<sup>17</sup>Ibid Biogas for Better Life (2007): Promoting Biogas Systems Kenya. A Feasibility Study (2007), p. 4ff., [http://www.biogasafrica.org/index.php?option=com\\_docman&Itemid=16&lang=en](http://www.biogasafrica.org/index.php?option=com_docman&Itemid=16&lang=en), last accessed 18.02.2011

<sup>18</sup> GTZ (2009): Analysis of the Market Potential for Domestic Biogas in Rural Kenya, p. 7. (Document provided to DOE)

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- high poverty is a constraint to shift from traditional to modern biomass energy utilisation
- lack of management/ maintenance (the absence of right instruction and information about maintenance and especially repair)
- lack of understanding by implementers about regional conditions and specific needs of the population (insufficient research to understand quality and end use issues)
- no sustainable and inadequate planning and monitoring by promoters (e.g. it has to be considered that enough organic material and water is required has to be available)
- Lack of trainings of constructors and farmers (necessity of correct construction works as well as correct maintenance by farmers)
- unregulated biogas sector
- poor quality of units

Further, PPs assessed EB 63, Annex 12, “Guidelines on Common Practice” but could not apply it since the technology targets households that are using the thermal energy for cooking in their premises, whereas EB63, Annex 12 refers to “commercial operation”, which implies that the output (i.e. the biogas) is not used for subsistence, but for delivering/selling it to someone else.

Sub-step 4b: Discuss any similar Options that are occurring

It has been demonstrated above that similar activities, though existent, are not widely observed and commonly practiced.

Therefore, it can be concluded that the project activity is additional, as, according to the tool, *“if Sub-steps 4a and 4b are satisfied, i.e. (i) similar activities cannot be observed or (ii) similar activities are observed, but essential distinctions between the project activity and similar activities can reasonably be explained, then the proposed project activity is additional”*.

### CDM Consideration

In line with EB 41, Annex 46, prior Consideration Form was sent to the DNA and UNFCCC on September 10, 2010, within 6 months of the start date of the project activity.

### List of events:

Event	Date
Start date of project activity	1 June 2010
Pilot phase with baseline survey, training of masons and construction of pilot units	June 2010 to November 2010
Local Stakeholder Consultation	August 2010

## GOLD STANDARD PASSPORT

Prior Consideration Form submitted to UNFCCC and DNA	September 2010
Letter of no-objection of Kenyan DNA (NEMA)	December 2010
PDD submission to DOE for validation	April 2011
GSP webhosting UNFCCC website	05 May 11 - 03 Jun 11

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## H.2. Conservativeness

Emission reductions are calculated for a 2 m<sup>3</sup> gas storage biogas unit. Larger units will also apply the same emission reductions per unit.

Furthermore, for emission reductions originating from substitution of non-renewable biomass, an emission factor of 81.6 t CO<sub>2</sub>/TJ as per the methodology is applied instead of the emission factor for wood. Therefore, only 73% of the emission reductions are accounted for, as per the methodology requirements of AMS I.E.

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**ANNEX 1**    **ODA declaration**

# GOLD STANDARD PASSPORT

atmosfair gGmbH, Zossener Str. 55-58, D-10961 Berlin

nachdenken • klugbewusst reisen



Berlin, 17.03.2011

**Project reference: Nairobi River Basin Biogas Project**

**To: Gold Standard Foundation**

**Declaration of Non-Use of Official Development Assistance by Project Owner**

atmosfair:

As Project Owner of the above-referenced project, acting on behalf of all project participants, I now make the following representations:

Dietrich Brockhagen:

I hereby declare that I am duly and fully authorised by the project owner of the above-referenced project, acting on behalf of all project participants, to make the following representations on Project Proponent's behalf:

## **I. Gold Standard Documentation**

I am familiar with the provisions of Gold Standard Documentation relevant to Official Development Assistance (ODA). I understand that the above-referenced project is not eligible for Gold Standard registration if the project receives or benefits from Official Development Assistance under the condition that some or all credits coming out of the project are transferred to the ODA donor country. I now expressly declare that no financing provided in connection with the above-referenced project has come from or will come from ODA that has been or will be provided under the condition, whether express or implied, that any or all of the credits [CERs, ERUs or VERs] issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.

## **II. Duty to Notify Upon Discovery.**

If I learn or if I am given any reason to believe at any stage of project design or implementation that ODA has been used to support the development or implementation of the project, or that an entity providing ODA to the host country may at some point in the future benefit directly or indirectly from the credits generated from the project as a condition of investment, I will make this known to the Gold Standard immediately.

**III. Sanctions.** I am fully aware that under Section 10 of the Gold Standard Terms and Conditions sanctions and damages may be incurred for the provision of false information related to Projects and/or Gold Standard credits.



Dietrich Brockhagen  
Executive Director