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# Gold Standard Validation Report

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VER  
Biogas - Heat  
Large-Scale  
Indicative programme, baseline, and monitoring methodology  
for Small Scale Biodigester, Voluntary Gold Standard

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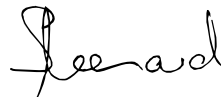
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## Table of Content

<b>1. Introduction.....</b>	<b>3</b>
1.1 Objective.....	3
1.2 Scope.....	3
1.3 Project description .....	3
1.4 Methodology of validation .....	4
<b>2 Validation Opinion .....</b>	<b>6</b>
2.1 Summary of the validation conclusions.....	6
2.2 Summary of the validation methodology and process used and the validation criteria applied.....	6
2.3 Description of project components or issues not covered by the validation process .....	6
2.4 Statement on the validation of the expected emission reductions.....	6
<b>3 Validation Findings.....</b>	<b>8</b>
3.1 Project description .....	8
3.2 Baseline and monitoring methodology.....	9
3.3 Project eligibility.....	11
3.4 Additionality of project activity .....	12
3.5 GHG emission reduction.....	16
3.6 Monitoring requirements and monitoring plan.....	17
3.7 Sustainable development.....	18
3.8 Stakeholder consultation .....	19
3.9 Pre-feasibility assessment .....	19
3.10 Environmental impacts .....	25
3.11 Validation protocol.....	25
<b>4 List of Interviewees and Documents Reviewed .....</b>	<b>26</b>
<b>5 Validation Team and Reviewer .....</b>	<b>26</b>
<b>6 Quality Control.....</b>	<b>26</b>
<b>7 Appendix A: On-Site Visit Program.....</b>	<b>27</b>
<b>8 Appendix B: Interviews .....</b>	<b>28</b>
<b>9 Appendix C: Documents Reviewed.....</b>	<b>29</b>
<b>10 Appendix D: Certificates of Competence .....</b>	<b>31</b>
<b>11 Appendix E: Abbreviations.....</b>	<b>34</b>
<b>12 Appendix F: Validation Protocol</b>	

## 1. Introduction

### 1.1 Objective

National Biodigester Programme (NBP), Department of Animal Health and Production Cambodia have commissioned SQS to perform a validation of the “National Biodigester Programme, Cambodia” project (hereafter called “the project”).

The validation is an independent evaluation by a Designated Operational Entity (DOE) that a project fulfils Gold Standard validation requirements. Validation is part of the Gold Standard project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the Gold Standard. The ultimate decision on the registration of a proposed project activity rests at the Gold Standard and the Parties involved.

### 1.2 Scope

The validation scope is defined as an independent and objective review of the project design and project documentation. The documents are reviewed against the criteria stated in

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- CLEAN DEVELOPMENT MECHANISM VALIDATION AND VERIFICATION MANUAL, version 1.2
- Gold Standard Requirements
- Gold Standard Toolkit
- Decisions and specific guidance by the Gold Standard published under <http://www.cdmgoldstandard.org/>
- A comprehensive list of the normative references is given in the validation protocol (appendix F).

The validation team has used a risk-based approach focusing on the identification of significant risks for project implementation and the generation of VERs.

### 1.3 Project description

National Biodigester Programme (NBP) is a joint development between the Cambodia Ministry of Agriculture Forestry and Fisheries (MAFF) and the Netherlands Development Organisation (SNV) aimed to disseminate domestic biodigesters as an indigenous, sustainable energy source through the development of a commercial, market oriented, biodigester sector in eight selected provinces of Cambodia. The biodigesters will treat animal and human waste to produce a clean renewable cooking and lighting fuel, biogas, whereas the treated waste is to be used as a potent and safe organic fertilizer. Continued maintenance and operation of all biodigesters through technical and promotional capacity development and the establishment of support institutions for wide scale deployment and sustained development of the biodigester sector are also some of the objectives of the program.

The starting date of the project activity is 13 March 2006.

The starting date of the first retroactive Gold Standard crediting period is 1 January 2009.

Expected operational lifetime of the project is 20 years.

A renewable crediting period of 7 years was chosen, with an estimated annual amount of emission reductions of 34,757 tonnes CO<sub>2</sub>e.

## 1.4 Methodology of validation

The SQS auditors apply standard auditing techniques to assess the correctness of the information provided by the project participants, including, where appropriate, but not limited to:

- (a) Document review, involving: review of data and information to verify the correctness, credibility and interpretation of presented information and cross checks between information provided in the project design and project documentation and information from sources other than that used, if available, and if necessary independent background investigations
- (b) Follow-up actions (on-site visit, telephone, email interviews), including: interviews with relevant stakeholders in the host country, personnel with knowledge of the project design and implementation and cross-check of information provided by interviewed personnel to ensure that no relevant information has been omitted from the validation
- (c) Reference to available information relating to projects or technologies similar to the proposed Gold Standard project activity under validation
- (d) Review, based on the approved methodology being applied, of the appropriateness of formulae and correctness of calculations.

If, during the validation of a project activity, the auditor identifies issues that need to be further elaborated upon, researched or added to in order to confirm that the project activity meets the Gold Standard requirements and can achieve credible emission reductions, the auditor shall ensure that these issues are correctly identified, discussed and concluded in the validation report.

The auditor shall raise a corrective action request (CAR) if one of the following occurs:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The Gold Standard requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

The auditor shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable Gold Standard requirements have been met.

The auditor shall raise a forward action request (FAR) during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the Gold Standard requirements for registration.

The auditor shall resolve or “close out” CARs and CLs only if the project participants modify the project design, rectify the project design and project documentation or provide adequate additional explanations or evidence that satisfy the SQS’s concerns. If this is not done, the SQS shall not recommend the project activity for registration.

In order to ensure transparency, a validation protocol was customized for the project. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a Gold Standard project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.
- The validation protocol consists of two tables. The different columns in these tables are described in below Figure.

The completed validation protocol is enclosed in appendix F to this report.

<b>Validation Protocol 1: Requirement Checklist</b>	
<i>Requirement</i>	The requirements the project must meet.
<i>Ref.</i>	Reference to the PDD or documents.
<i>MoV (Means of Validation)</i>	Explains how conformance with the requirements is investigated. DR = Document Review, I = Interview, N/A = Not Applicable
<i>Comment / Cross Reference</i>	The section is used to elaborate and discuss the conformance to the requirement.
<i>Draft Concl. / Final Concl. (Draft and/or Final Conclusion)</i>	OK = Conform, CAR = Corrective Action Request, CL = Clarification Request, FAR = Forward Action Request

<b>Validation Protocol 2: Summary of Requests</b>	
<i>No.:</i>	The requests (CAR, CL, FAR) are numbered and listed in this section.
<i>Reference:</i>	Reference to the checklist question number in Protocol 1 where the request is explained.
<i>Validator findings / request:</i>	The section is used to elaborate and discuss the request. May give reference to the PDD or documents.
<i>Project proponent response:</i>	The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.
<i>Validator conclusion:</i>	This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Protocol 1, under "Final Conclusion".
<i>Date:</i>	Date when request was closed.

## 2 Validation Opinion

### 2.1 Summary of the validation conclusions

It is SQS' opinion, that the project meets all relevant criteria of the listed references and correctly applies the approved methodology and therefore SQS request the registration of given Gold Standard project.

### 2.2 Summary of the validation methodology and process used and the validation criteria applied

National Biodigester Programme (NBP), Department of Animal Health and Production Cambodia contracted SQS to validate the "National Biodigester Programme, Cambodia" project with regard to the relevant requirements of the Gold Standard project activities, as well as criteria for consistent project operations, monitoring and reporting. In addition to the general criteria described above, the validation was conducted against the specific criteria defined by the following documents:

- Gold Standard Requirements, version 2.1
- Gold Standard Toolkit, version 2.1
- Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0
- Tool for the demonstration and assessment of additionality, version 05.2.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by stakeholders and NGOs have provided SQS with sufficient evidence to validate the fulfilment of the stated criteria.

In the course of the validation, 7 Corrective Action Requests (CARs), 4 Corrective Action Requests ex Technical Review (TR\_CARs) and 26 Clarification Requests (CLs) were raised and successfully closed. One Forward Action Request (FAR) was also raised.

The final PDD version 16 <PDD - NBP Cambodia - PDD V16 12july2011\_word 2003 public version>, Gold Standard Passport version 8 <June 2011 GSPP - NBP Cambodia V8> and CER-Spreadsheet <National Biodigester Programme Cambodia - ex-ante baseline project and emission reduction calculations 24june2011>, that included all corrections/clarifications requested by SQS and all corrections/requests by the Gold Standard registration review <GS751 NBP Cambodia 8WR\_2nd round\_12072011>, were found to fulfil all stated criteria.

### 2.3 Description of project components or issues not covered by the validation process

The validation has covered the entirety of the project and, therefore, the validation process covered every project components or issues.

### 2.4 Statement on the validation of the expected emission reductions

The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated

- Total estimated emission reductions of 243,301 tCO<sub>2</sub>e

- Average estimated emission reduction of 34,757 tCO<sub>2</sub>e /year
  - Average estimated emission reduction per biodigester of 4.79 tCO<sub>2</sub>e /year
- are most likely to be achieved within the seven years renewable crediting period (13 March 2006 to 12 March 2013).

The starting date for retroactive Gold Standard application is 1 January 2009.

## 3 Validation Findings

### 3.1 Project description

#### 3.1.1 Documentation

The PDD is compliant with the latest template and guidance of the CDM EB available on the UNFCCC website. Main changes between the PDD version 7 [1] and the final version 15 [45] is issues related to the CARs, CLs and FARs identified during validation (refer to Protocol in appendix F). The key PDD change between version 12 (26 September 2010) published for the stakeholder commenting period and version 13 (27 October 2010) is the shorter crediting period.

The GS Passport [27] is compliant with the latest template Toolkit Annex R available on the Gold Standard website. Main changes between the GS Passport version 3 (24 May 2010) and the final version 7 (26 September 2010) [27] are issues related to the CARs, CLs and FARs identified during validation (refer to Protocol in appendix F).

SQS' lead auditor Rudolf Brodbeck conducted an on-site visit (16 to 18 August 2010). The description of the project was assessed in situ and by interviews (refer to the list of interviewees in appendix B) confirming the project development status. During the on-site visit, technical drawings were shown to the auditor confirming the description of the project scenario. The documents listed in the Information Reference List section were reviewed by SQS to assess accuracy and completeness of the project description.

On the basis of the documents referred to in the PDD and GS Passport, all further documents reviewed as mentioned above, on-site visit and interviews with key persons, SQS formed the opinion that the description of the project activities in the PDD and GS Passport is accurate and correct.

#### 3.1.2 Registration requirement

Referring to Part C.5. of the GS Passport [27].

In accordance with „applicable project cycle“ it concerns a Retroactive Registration.

The Project Proponent submitted a project activity for retroactive registration. The Project Proponent submitted the documents on 03.12.2009 to Gold Standard. The GS has reviewed the submitted project [36].

#### 3.1.3 Applicable project cycle

Referring to Part C and A.4.3. of the PDD [45] and C.5. of the GS Passport [27].

The starting date of the project corresponds to the date when the programme arrangement and implementation document for the National Biodigester Programme in Cambodia was signed. This has been appropriately documented [21]. The starting date of project activities is 13 March 2006. Additionally the first Biodigester under NBP was built in March 2006.

The first submission of a document to Gold Standard was on 30 October 2009 (Stakeholder consultation report), additional documents were Gold Standard Passport (3 November 2009) and PDD (3 November 2009). Thus the conditions for a retroactive project cycle are given.

#### 3.1.4 Crediting Period

Referring to Part C and A.4.3. of the PDD [45].

With PDD version 13 the credit period changed from 10 to 7 years.

The starting date of the project corresponds to the date when the programme arrangement and implementation document for the National Biodigester Programme in Cambodia was signed. The starting date of project activities is 13 March 2006. A renewable crediting period of 7 years is chosen.

Thus the credit period lasts from 13 March 2006 to 12 March 2013.



Between 13 March 2006 and 31 December 2008 credits are sold to HIVOS Climate fund. Evidence of this is provided in Annex 5 PDD, which shows an accountant declaration of the credits bought by and exclusive buyer (the INGO HIVOS) of the generated credits. These credits, pre-GS credits, were voluntary credits without a standard; the quality relied on the trust and the name that HIVOS and SNV have in the Netherlands.

The starting date for retroactive Gold Standard application is 1 January 2009.

## 3.2 Baseline and monitoring methodology

### 3.2.1 General requirement

The project applies the approved consolidated Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0. This methodology also refers to the latest approved versions of:

- "Tool for the demonstration and assessment of additionality", version 05.2.

### 3.2.2 Applicability of the selected methodology to the project activity

Referring to Part B of the PDD [45].

The Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 is applicable to the "National Biodigester Programme, Cambodia" (NBP) and its project activities. Through the on-site visit it was confirmed that the situation is a programme of activities involving the implementation of biodigesters in households within the project's boundaries. The project activity is implemented by a project coordinator (NBP) which acts as the project participant. The individual households will not act as project participants. The consumption of biogas from the biodigesters replaces the consumption of fossil fuel and biomass.

SQS checked each of the four applicability conditions for the Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 and established the following:

Applicability Criterion 1 *"The biodigester programme promotes the wide-scale use of biogas as substitute for wood, agricultural residues, animal dung and fossil fuels that are presently used for the cooking, space heating and lighting needs of most rural households"*.

The project plans to disseminate small-scale household biodigesters where the use of biogas will replace kerosene for lighting, wood and charcoal for cooking purposes. The activities of NBP are described in the "Programme Arrangement and Implementation Document National Biodigester Programme in Cambodia" [21; 22]. The first arrangement [21] was signed in March 2006.

Applicability Criterion 2: *"The methodology applies to project with biodigesters with a maximum total biodigester volume of 20 m<sup>3</sup>"*.

The biodigesters constructed under the NBP are smaller than 20 m<sup>3</sup>, only 4/6/8/10 & 15m<sup>3</sup> [45].

Applicability Criterion 3: *"The biodigesters in the programme are not included in another CDM or voluntary market project, (i.e. no double counting takes place)"*.

The biodigesters constructed under the NBP are not part of another CDM or voluntary market project. The mechanism to prevent any risk of double counting is not described transparent. Therefore, CAR 6 was raised. A contract is signed with every plant. Through the text in the contract double counting to another CDM or voluntary market project is not allowed. Every plant is upon completion but before commissioning

inspected by a PBPO supervisor. This is a structured inspection [45] with the use of a Plant Completion Report Form (form no.9). Further controls are carried out through the Biogas User Survey, with a random sample of plants, and through the follow-up of the bioslurry extension staff [45]. This was checked during the on-site visit. Therefore, CAR 6 was closed.

Applicability Criterion 4: *"If more than one climate zone is included in the project, the project should make a distinction per climate zone"*.

The project includes one climate zone. It is located at 8 provinces in Cambodia.

SQS confirms that the applicability criteria of the selected Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 is met in an appropriate manner.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

### 3.2.3 Project boundary

Referring to Part B and A of the PDD [45].

The project boundaries encompass biodigesters constructed under the NBP at 8 provinces (Kampong Cham, Kampong Chnang, Kampong Speu, Takeo, Svay Rieng, Kandal, Prey Veng, Kampot) in Cambodia. The boundary of the individual biodigester includes animal waste production and storage system, biodigester [45] and thermal energy services (biogas stove, lighting).

NBP has developed a spatial mapping tool, whereby the location of the biodigesters are real time linked with a spatial map. The map is made available online, see: [http://www.nbp.org.kh/html/nbpmap\\_full.html](http://www.nbp.org.kh/html/nbpmap_full.html).

In accordance with the methodology, CO<sub>2</sub> and CH<sub>4</sub> is included in the baseline and CH<sub>4</sub> in the project activity.

The observations during the on-site visit showed that the PDD described statements were accurate.

The identified boundary and the selected sources and gases are justified for the project activity. No emission sources that will be affected by the project activity and that are not addressed by the selected approved methodology were identified by SQS and, therefore, the boundary is correct.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

### 3.2.4 Baseline identification

Referring to Part A and Annex 8 of the PDD [45].

The Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 allows two options for the baseline scenario:

- a. The situation before implementation of the biodigesters (i.e. pre-project situation).
- b. The situation where fossil fuels are used to meet energy service needs (even if they are not currently being used).

Options a) (pre-project situation) where used.

The pre-project situation was thoroughly studied and described in PDD appendix 8 and „REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD LEVEL" [32].

The assumptions and data used are listed in the PDD, including their references and sources. The documentation used is correctly quoted and interpreted in the PDD. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be

deemed reasonable. The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

In summary, the baseline is as follows:

Households (farmers) use wood and charcoal for cooking and kerosene for lighting. The reliance on these fuels cause substantial indoor air pollution (with related health hazards) and are predominantly of non-renewable origin. A substantial part of wood is collected, which is drudgery and significant time expenditure, especially for women. Bought wood, on the other hand, is a burden on the limited household's revenues. No animal waste management result in pollution, foul odour and methane emissions.

The observations during on-site visit showed that the PDD described statements were accurate.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

### 3.3 Project eligibility

#### 3.3.1 Eligible project activity location

Referring to Part C.2. of the GS Passport [27] and Part A.3. and appendix 1 of the PDD [45].

The participants were checked and discussed at the onsite-visit. Therefore, CAR 1 was raised.

National Biodigester Programme (NBP) is a joint venture intervention of the Cambodian Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Netherland Development Organization (SNV). According to [EMU] page 3 Ministry of Agriculture, Forestry and Fisheries will take the ownership of the National Biodigester Programme. The contract [EMU] is signed by Ministry of Agriculture, Forestry and Fisheries Kingdom of Cambodia and Netherland Development Organization Cambodia. Therefore, CAR 1 is closed. The party that is identified for the project activity is Cambodia. Cambodia ratified the Kyoto Protocol on 22 August 2002.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

#### 3.3.2 Eligible project activity gases

Referring to Part C.4. of the GS Passport [27].

In accordance with the methodology, CO<sub>2</sub> and CH<sub>4</sub> is included in the baseline and CH<sub>4</sub> in the project activity.

#### 3.3.3 Eligible project types

Referring to Part C.3. of the GS Passport [27].

In accordance with Toolkit Annex C the project is "Renewable Energy Supply" project activity.

#### 3.3.4 Eligible project scale

Referring to Part C.1. of the GS Passport [27] and Part B.1. of the PDD [45].

The project scale were checked and discussed at the onsite-visit. Therefore, CL 1 was raised.

It is a large-scale project with methodology for small scale Biodigesters. Therefore, CL 1 is closed.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

#### 3.3.5 Eligible methodologies for project activities

Referring to Part B of the PDD [45].

The project applies the approved consolidated Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0.

SQS confirms that the applicability criteria of the selected Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 is met in an appropriate manner.

### 3.3.6 *Ineligible project activity finance*

Referring to Annex 1 of the GS Passport [27]

The sign ODA Declaration Form is present.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

### 3.3.7 *Relationship between GS CDM/JI submissions and GS VER submissions*

Not applicable

### 3.3.8 *Project activity involvement in other certification or emissions trading schemes*

Referring to Part C and A.4.3. of the PDD [45].

Between 13 March 2006 and 31 December 2008 credits are sold to HIVOS Climate fund. Evidence of this is provided in Annex 5 PDD, which shows an accountant declaration of the credits bought by and exclusive buyer (the INGO HIVOS) of the generated credits. These credits, pre-GS credits, were voluntary credits without a standard; the quality relied on the trust and the name that HIVOS and SNV have in the Netherlands.

## 3.4 **Additionality of project activity**

### 3.4.1 *The prior consideration of the necessity of carbon finance*

Referring to Part B.5. of the PDD [45].

In May 2005, still before a MoU [40] was signed between SNV (Netherlands Development Organisation) and MAFF (Ministry of Agriculture, Fisheries and Forestry), contacts were made with the World Bank on possible emission credit sales. A PIN (Project Idea Note) [42] was developed in July 2005 and submitted to the Ministry of Environment (DNA) for approval and to the WB (available upon request). Based on this PIN, the WB came up with a draft Letter of Intent (LoI) on carbon trade collaboration with NBP in March 2006. A letter of No Objection from the DNA [35] was obtained in September 2005. However, since the methodology for non-renewable biomass claims (NRB) had recently changed and was on hold, a CER project for domestic biogas became less attractive.

On 13 March 2006, MAFF and SNV Cambodia signed the "Programme Arrangement and Implementation Document National Biodigester Programme in Cambodia" [21] on the joint development of a National Biodigester Programme (NBP) as a way to create an indigenous, sustainable energy source in Cambodia and to utilize the potential of biogas in the country.

GERES Cambodia was contracted in May 2006 to conduct a carbon baseline study (title: CDM Baseline study on fuel use and manure management at household level) [31]. After extensive discussion, a postponement of the carbon contract with the WB was decided until there is more clarity on the production achievement of NBP and the emission reductions that can be claimed per plant (methodologies). Also, it was decided to explore other, less costly, carbon trading opportunities, i.e. through VER sales. From the onset, it has been the intention to seek carbon financing to ensure the long-term (financial) sustainability of the programme.

Between 13 March 2006 and 31 December 2008 credits are sold to HIVOS Climate fund. Evidence of this

is provided in Annex 5 PDD, which shows an accountant declaration of the credits bought by and exclusive buyer (the INGO HIVOS) of the generated credits. These credits, pre-GS credits, were voluntary credits without a standard; the quality relied on the trust and the name that HIVOS and SNV have in the Netherlands. However, in 2008 it was decided to pursue accreditation of a premium standard from 1-1-2009: voluntary Gold Standard. The first Biodigester under NBP was built in March 2006.

The starting date of the project corresponds to the date when the programme arrangement and implementation document for the National Biodigester Programme in Cambodia was signed. This has been appropriately documented [21]. The line of argumentation is thoroughly substantiated with copies of authentic documents as referenced above.

The starting date of project activities is 13 March 2006.

The starting date for retroactive Gold Standard application is 1 January 2009.

In compliance with the Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0 the project applies the latest version of the "Tool for the demonstration and assessment of additionality", version 05.2 approved by the CDM-EB.

### 3.4.2 Identification of alternatives

Referring to Part B.5. of the PDD [45].

The following alternatives were identified according to the methodology for the purposes of baseline selection; in brackets the PDD conclusion and the basis for and the results of its validation is indicated:

- 1) Continued use of unsustainable fuel wood for cooking and kerosene for lighting;
- 2) Continuation of the project activities without carbon finance;
- 3) Switch to fossil fuels;
- 4) Development of NBP based on donor and/or public funding.

Alternative 1: Continued use of unsustainable fuel wood for cooking and kerosene for lighting.

"The business as usual scenario of using unsustainable fuel wood for cooking and kerosene for lighting. In terms of thermal energy output for cooking this scenario would deliver similar output compared to the biogas stove and for most users a lower output for lighting with kerosene compared to biogas lamps. The procurement of wood for cooking is in full compliance with applicable laws and regulations; unless firewood originates from logging activities in national and protected forests, which is illegal. However, the Cambodian government lacks the recourses to enforce the law to combat illegal logging activities. The procurement of kerosene for lighting is conforming national regulations."

The on-site visit confirmed that the livelihood of the poor and the household costs are substantially better, if a household operates a Biodigester in agreement with NBP. The statement is confirmed by the interviews accomplished with the farmers.

Alternative 2: Continuation of the project activities without carbon finance.

"Option 2 is not applicable because it is foreseen in the initial plan that revenue from carbon offsets are needed to implement the NBP, without the projected income from carbon offsets the NBP would not have started. The main reason is that without the income from carbon offsets, biodigesters would have been more expensive (up to \$150), and since the majority of the households with the technical potential for a biodigester have a very low income, around \$99/month, most households would be unable to purchase a biodigester directly through a non-subsidized market mechanism. For these reasons, carbon finance was part of the business model of NBP before the start of the activities.

The NBP activities without carbon finance are consistent with mandatory rules and regulations."

Project activities without carbon finance is not realistic; see "Barrier analysis".

Alternative 3: Switch to fossil fuels.

“The most credible alternative fossil fuel would be LPG for cooking, which costs around \$14 for a 15 kg cylinder (September 2009). It is estimated that households relying on LPG will consume at least 1 bottle per month. Spending \$14 per month on LPG would be a very high expenditure for the rural households, even for the households which have a slightly higher income and which have the technical potential for biogas. The average rural income is \$82.4 (Statistical Yearbook of Cambodia 2005) and for the households with the technical potential \$99/month. Spending \$14 per month on LPG would represent almost 14% of the average household’s income, which is, obviously, neither feasible nor affordable. Furthermore, the LPG infrastructure is limited to the capital cities of the provinces and it is consequently difficult to obtain LPG cylinders for the rural households next to the high costs. A far more likely alternative is the continued use of fuel wood, which comes at much lower costs (around \$0.07 per kg in rural areas) or is collected; in that case the fuel is free.

A switch to LPG is in compliance with all mandatory applicable legal and regulatory requirements.”

The on-site visit confirmed that the household costs are substantially better if a household operates a Biodigester in agreement with NBP. The statement is confirmed by the interviews conducted with the farmers.

Alternative 4: Development of NBP based on donor and/or public funding.

“Alternative 4 is not applicable as the Cambodian government does not have the funds to finance the subsidy component and, therefore, the same obstacle as described in alternative 2 remains. Cambodia is one of the least developed countries in Asia, ranked number 124 out of 169 on the Human Development Index. Therefore, the government budget is limited and relies heavily on foreign assistance. In addition, in Cambodia, there are no laws promoting or subsidizing biogas plants.”

The list of alternatives describes the realistic and credible alternatives.

Therefore, the credible alternative for the project is “continuation of the project activities with carbon finance”. However, alternative 1-3 are possible but they bring no improvement.

### 3.4.3 *Investment analysis*

Referring to Part B.5. of the PDD [45].

The programme does not seek returns on its investment and is financed by a mix of ODA, government contribution and carbon finance. In accordance with the methodology as the project is at least partially public financed concerning investment, no investment analysis is made and the barrier analysis is applied. As no investment analysis is applied no cost-benefit analysis is applied.

### 3.4.4 *Barrier analysis*

#### 3.4.4.1 *Investment barrier National Biodigester Programme (NBP)*

Referring to Part B.5. of the PDD [45].

During the onsite-visit, the crediting period was 10 years; so CAR 2 was raised. The somewhat uncommon statement of the costs accepted because the situation is clear; project owner response: without this income the programme would no longer be in existence. Therefore, CAR 2 is closed.

The NBP program costs were checked [41] and discussed during the onsite-visit and were found realistic and reasonable in the historic context. Hereinafter, a summery overview of the costs.

Overview without VER (€):	2009	2010	2011	2012	2013	2014	2015
Total program costs	688,590	1,168,300	1,432,400	1,551,500	1,581,000	1,576,300	1,579,956
Donor contribution (DGIS, BMZ, SNV)	567,180	919,900	1,184,000	1,303,100	not secured		
Net income VER	--	--	--	--	--	--	--
Total income	567,180	919,900	1,184,000	1,303,100	--	--	--
<b>Total overall</b>	<b>-121,410</b>	<b>-248,400</b>	<b>-248,400</b>	<b>-248,400</b>	<b>-1,581,000</b>	<b>-1,576,300</b>	<b>-1,579,956</b>
Overview with VER (€):	2009	2010	2011	2012	2013	2014	2015
Total program costs	688,590	1,168,300	1,432,400	1,551,500	1,581,000	1,576,300	1,579,956
Donor contribution (DGIS, BMZ, SNV)	567,180	919,900	1,184,000	1,303,100	not secured		
Net income VER	121,410	248,400	247,101	333,819	429,949	541,866	664,154
Total income	688,590	1,168,300	1,431,101	1,636,919	429,949	541,866	664,154
<b>Total overall</b>	<b>0</b>	<b>0</b>	<b>-1,299</b>	<b>85,419</b>	<b>-1,151,051</b>	<b>-1,034,434</b>	<b>-915,803</b>

Therefore, SQS is able to confirm that the input parameters used in the financial analysis are reasonable and adequately represent the economic situation of the project.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

#### 3.4.4.2 Investment barrier at individual household level

Referring to Part B.5. of the PDD [45].

The high investment cost of a biodigester is a barrier for households in the project area. Financing a biodigester completely from the farmer's income would pose an undesirable high burden on the household income rendering the investment unviable to alleviate this burden an investment subsidy is provided by NBP. The investment subsidy also gives NBP a tool to enforce quality standards on material, workmanship, appliances and after-sales service as it is only provided after the technical inspection of the completed biodigester before commissioning.

The investment costs of a biodigester were checked and discussed during the onsite-visit and were found realistic and reasonable. Also IRR calculations were checked and discussed. The payback time without subsidy is 3.5 to 6.5 years; too long for farmers in the project area. The IRR analyses were found realistic and reasonable.

The correct use of the word "subsidy" was not clear. Therefore CAR 5 and CL 14 was raised.

The farmer invests the costs of the biodigester and so he is owner of the biodigester and the emission rights. The transfer of the emission rights from the owner of the biodigester to NBP is settled with this subsidy. The transfer of the emission rights (VER credits) from the owner of the biodigester to NBP is described in a Biodigester Construction Contract [17]. The owner rejected a change of the word subsidy. Therefore, CAR 5 and CL 14 is closed.

Therefore, SQS is able to confirm that the parameters used in the investment analysis at household level are reasonable and adequately represent the economic situation of the households.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) could be successfully resolved and are summarized in appendix F (Validation Protocol).

#### 3.4.4.3 Technological barriers

Referring to Part B.5. of the PDD [45].

Based on experience with biogas in Cambodia. However, a large proportion of these biogas plants are out of operation due to leakages, unsuitable designs, lack of maintenance, training and support. Experience and the knowledge are missing in Cambodia.

Training and support are core elements of the NBP program. NBP initiated a great number of workforce training, construction quality training, owner training, and maintenance training, after sales service training and trained masons and licensed enterprises to construct the biodigesters. They are defined in the "Programme Arrangement and Implementation Document National Biodigester Programme in Cambodia" [21].

The described barrier is plausible and was observed during the on-site visit and during interviews. Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

#### 3.4.5 Common practice analysis

Referring to Part B.5. of the PDD [45].

The region for the common practice analysis was defined by the project proponent as 8 provinces (Kampong Cham, Kampong Chhnang, Kampong Speu, Takeo, Svay Rieng, Kandal, Prey Veng, Kampot) in Cambodia.

The validation team has reviewed sources such as the Gold Standard Website and the UNFCCC Website for projects of similar technology in Cambodia and came to the conclusion that besides the proposed project activity no other similar project is under implementation in Cambodia.

Similar biogas programs were developed in Vietnam and Nepal.

Other biogas projects in Cambodia were scattered, small, had no focus on sector development but merely on the construction of a certain number and relied on a technology that was neither suitable nor sustainable. They were made of plastic, which typically breaks after 9-24 months. The approach of NBP contrasts the other projects as it aims to develop a sustainable biogas sector which is ultimately ran by the private sector using a biodigester model that is durable (lifespan of 15-20 years), indigenized and adapted to the Cambodian condition.

Therefore, SQS confirms that the proposed CDM project activity is not common practice in Cambodia.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

#### Summary of additionality of project activity

On the basis of the above assessment of the PDD argumentation and supporting evidence, it is sufficiently demonstrated that the project is not a likely baseline scenario, and that the emission reductions resulting from the project are additional.

### 3.5 GHG emission reduction

Referring to Part B.6. and Annex 7 of the PDD [45].

Emission reductions of the project activity are calculated on the basis of emission reductions due to displacement of thermal energy demand ( $BE_{th}$ ) for cooking and lighting and animal waste handling ( $BE_{aw}$ ) from cow's, pig's and buffalo's used IPCC 2006 Tier 2 approach in the pre-project situation.

The project emission is calculated from continued reliance on cooking and lighting fuels (kerosene) ( $PE_{th}$ ) and leakage emission from incomplete combustion of methane ( $PE_{aw}$ ). Displacements of other lighting fuels, such as electricity from either batteries or the grid, are not considered, which is conservative.

All calculations [11] and the results reflected in the PDD were checked and SQS concludes that calculations were done appropriately. For the calculations, data [43], [32] and the methodology was used. The survey reports [3] and [4] confirms the statements.

For charcoal the calculation expressed in wood equivalent whereby the emission factor and NVC of wood is used: 1 kg wood is 6 kg charcoal. This was stipulated by IPCC 1996. During the on-site visit, different points were not transparent. CL 5, CL 23, CL 24, CL 25, CL 26, CAR 3 was expressed. Relevant Corrective



Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

All calculations are listed in an excel sheet with many digits. The data in the report are rounded numbers and might slightly deviate.

It is to be noticed that the credit period for the project was defined as 10 years and was shortened to 7 years at the end of the assessment.

The annual average emission reduction per household is calculated as 4,79 tCO<sub>2</sub>.

The estimated average number of credits per year is calculated as 34,757 tCO<sub>2</sub>.

Note that credits are calculated on a monthly interval, that is conservative.

The resulting annual and total emission reductions of the project activity as presented in the PDD were correctly calculated in conformity with the Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0. The calculations estimates presented in the PDD are complete, transparent and derived from reasonable assumptions.

### 3.6 Monitoring requirements and monitoring plan

#### 3.6.1 Emission reductions

Referring to Part B.7. of the PDD [45].

SQS has validated the monitoring plan by using the Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester," Version 1.0, and concluded that the project proponent developed its monitoring plan according to the methodology.

The parameters that are monitored according to the methodology during the project activity's operations are as follows:

- ID 1: Project area (the project area is fixed and delineated by the 8 provinces).
- ID 2: Number of households in the baseline sample group (from the CDM baseline study [32]).
- ID 3: Number of households in project sample group (biennial monitoring survey).
- ID 5: Total number of households participating in the program in year y (database of NBP).
- ID 6: Cooking and lighting fuel consumption (biennial monitoring survey).
- ID 9: Annual biomass increment on the project area (biennial literature study).
- ID 10: Annual biomass harvest on the project area (biennial literature study).
- ID 11: Fraction of livestock's category T's manure fed into the biodigester (biennial monitoring survey).
- ID 12: Physical leakage of the biodigester (Gold Standard methodology "Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester")
- ID 13: Number of livestock of category K (biennial monitoring survey).
- ID 16: Global Warming Potential (GWP) of methane (most recent IPCC guidelines).

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

#### 3.6.2 Sustainability

Referring to Part G. of the Gold Standard Passport [27].

SQS has validated the monitoring plan by using the Gold Standard Requirements, Version 2.1, and Gold Standard Toolkit, Version 2.1 and concluded that the project proponent developed its monitoring plan according to these documents.

The parameters that are monitored according to the Gold Standard Requirements during the project activity's operations are as follows:

- Air quality: Reduction in wood and charcoal consumption for cooking and kerosene consumption for lighting in the project compared to the baseline (biennial monitoring survey).
- Water quality and quantity: Number of toilets built (database of NBP).
- Soil condition: Reduction of using chemical fertilizers as fertilizer in the project compared to the baseline (biennial monitoring survey).
- Biodiversity: Reduction in firewood and charcoal consumption for cooking compared to the baseline (biennial monitoring survey).
- Quality of Employment: Number of trained masons and supervisors (quality inspectors of biodigesters) and number of companies working of marketing, construction and after sale services (NBP keeps track of the number biennial).
- Livelihood of the poor: Increase in access to basic sanitation by the installation of a toilet to the biodigester (biennial monitoring survey).
- Livelihood of the poor: Reliance on biogas as lighting fuel (biennial monitoring survey).
- Livelihood of the poor: Percentage of biodigesters household that use biogas as their main cooking fuel (biennial monitoring survey).
- Access to affordable and clean energy services: Reduction in cooking and lighting fuel expenditure compared to the baseline (biennial monitoring survey).
- Balance of payments and investments: Net cash inflow: sum of cash inflows – cash outflows (reported biennially in the regular NBP progress reports).
- Technology transfer and technological self-reliance: Number of biodigesters built (database of NBP).

During the on-site visit, different points were not transparent. CL 11, CL 12, CL 13, CL 15 was expressed. Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

### 3.6.3 Monitoring plan

Referring to Part B.7.2. of the PDD [45].

The monitoring team and its responsibilities were appropriately described. The responsibility for user survey and monitoring report lies with NBP.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

## 3.7 Sustainable development

Referring to Part F. of the Gold Standard Passport [27].

SQS has validated the “Do No Harm” Assessment by using the Gold Standard Requirements, Version 2.1, and Gold Standard Toolkit, Version 2.1 and discussed it during the on-site visit. Not all of the 11 principles in accordance with Annex H of the Toolkit were specified. Therefore, CAR 4 was raised. For all 11 principles, the risk is estimated as low. The assessment is not described very detailed, it is, however, appropriate. Therefore, CAR 4 is closed.

The described “Do No Harm” Assessment is accurate and was observed during on-site visit and during interviews.

SQS also validated the Sustainable Development matrix by using the Gold Standard Requirements, Version 2.1, and Gold Standard Toolkit, Version 2.1 and discussed it during the on-site visit. The 12 Sustainable Development Indicators in accordance with Annex I of the Toolkit were specified. The SDM is not the blind sustainability assessment as required under the Gold Standard, but sustainable development was discussed in every workshop. The SDM is the sustainability assessment conducted by NBP in collaboration with an independent consultant. The points were checked during the on-site visit on behalf of

stakeholder interviews and the same result was found.

The three categories are positively scored. No negative scoring had to be made. The project demonstrates clear benefit to a sustainable development.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

### 3.8 Stakeholder consultation

Referring to Part E of the PDD [45], Part E. of the Gold Standard Passport [27] and the Gold Standard Stakeholder Report [7].

The Project Proponents submitted a project activity for retroactive registration. A Local Stakeholder Consultation is not conducted.

As described in the stakeholder report, NBP held a great number of stakeholder consultation meetings, both at national, provincial and at village level. Feedback from stakeholders was sought during these meetings. They invited end users, government representatives, official NGO supporters and other groups relevant to the Gold Standard. During the on-site visit, SQS checked the meeting documents. Invitation and/or participant lists were available, also minutes of the meetings.

The invitation of Save the Earth Cambodia, REEEP, WWF, Greenpeace, Mercy Corps and HELIO International could not be verified. [PFA] point 5. Therefore, CL 16 was raised. On 13 September, an email is sent to all the supporters mentioned and others that were deemed relevant [44]. By the end of October, no feedback had been received. Therefore, CL 16 is closed.

NBP has a very extensive home page on which all information is clearly available: [www.nbp.org.kh](http://www.nbp.org.kh)

There are sites "Contact us", "Publications" and new "Comments, please give us your comments and suggestion". Comments received by email or other means are processed professionally. Those are open lines to stakeholders.

Annually, Mr Jan Lam (SNV Senior Biogas Advisor) is invited from the University of Oldenburg to hold a presentation with the topic "Technology and Mass-Dissemination Experiences from Asia" at the "Domestic Biogas Compact Course". In September 2010, NBP signed a Memorandum of Understanding between Cambodian Rural Development Team (CRDT), NBP, myclimate, WWF Cambodia and WWF Switzerland concerning a Biodigester Programme in other provinces of Cambodia. This shows that the program is accepted.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).

### 3.9 Pre-feasibility assessment

Referring to [36].

The Project Proponent submitted a project activity for retroactive registration. The Project Proponent submitted the documents on 3 December 2009 to Gold Standard. The GS reviewed the submitted project and identified a number of areas where additional information is necessary for the project to be in line with the Gold Standard requirements. The following points were identified in the report [36].

<p><b>VER upgrade.</b> Please make sure to provide a statement in the PDD confirming that post-2008 credits will not be claimed under any other voluntary standard than the Gold Standard.</p>	<p>Statement in Part A.4.3 of the PDD [45].</p>
<p><b>Consideration of carbon revenues.</b> Please discuss in detail how early consideration of carbon revenues has been decisive in the decision for the project to go ahead and provide evidences to support this claim. The DOE shall explain in the Validation Report how it has verified that prior consideration of carbon revenues has taken place and that the evidence of actions taken by the PP to secure carbon revenues for the project activity along with its implementation is demonstrated.</p>	<p>It is discussed in Part A.4.3. and B.5. of the PDD [45]. There is no evidence that the consideration of carbon revenues has been decisive in the decision for the project to go ahead as requested by GS. However, SQS considers the argumentation line stated and documented in the PDD as sufficient to the fact that traditional ODA projects will be phased out after a initial implementation phase. To ensure that the NBP will be successful after the phasing out of ODA the Carbon Revenues have been decisive in the whole process and the overall set up of the NBP programme. Therefore, SQS considers the response of the PP as sufficient. See TR_CAR 2 in this report.</p>
<p><b>Barrier Analysis – Investment Barrier.</b> On Table 3, Breakdown of NBP costs, please clarify what DGIS funding refers to, as this is the first time that this is mentioned in the project documentation, and on what basis the subsidy was calculated (the understanding is that the subsidy is \$150/bio-digester).</p>	<p>The Barrier Analysis is completely revised in Part B.5. of the PDD [45].</p>
<p><b>Common practice analysis.</b> This section should include a discussion not only on similar programmes but also on the current use of biodigesters in Cambodia, confirming that without such a subsidised programme, these have remained marginally used. The information now provided in the first paragraph under the section on technological barriers (the discussion on the CCRD study and the limited number of biodigester installed since 1986) should for example rather be provided in the section on common practice.</p>	<p>The current use of biodigesters is included in Part B.5. of the PDD [45]. Additional points were discussed at the onsite audit and are descriptive under “Common practice analysis” in this report. SQS has cross checked the information provided in the PDD with the report Progress of CRDT Biogas Installation by the Mekong Project (Sun Mao, 2008) and considers the statement as appropriate and sufficient. See TR_CAR 4 in this report.</p>
<p><b>Baseline options.</b> Please remove or revise the discussion on Baseline option 2 and Baseline option 3 as these have not been interpreted appropriately. These options refer to the situation of suppressed demand. If pps wish to claim for suppressed demand and opt for these options, then they are required to demonstrate that there is indeed a situation of suppressed demand. The choice of option 1 does not require a demonstration that option 2 or option 3 are not suitable.</p>	<p>The baseline development is briefly and clearly describes in Part B.4. of the PDD [45].</p>
<p><b>Baseline study.</b> Sections B.4 and B.5 refer on several occasion to the 2006 CDM baseline study. Please make sure to provide this study and clarify in</p>	<p>In Part B. of the PDD [45] they refer to the „REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD</p>

what context this study had been undertaken (e.g. why is this called CDM baseline study).	LEVEL" [32]. This revised study is based on Gold Standard.
<b>Sampling data.</b> Please kindly upload as separate annexes in the registry the 2008 and 2009 survey studies, the sampling database, as well as the questionnaire used for collecting data and the spread sheets used for the processing of the survey data (baseline and biogas users). Also, please discuss the process followed to select the households for the sampling and how this ensured a representative sample of the overall targeted population.	The process followed to select the households for the sampling is integrated in [32] point 1.4. Due to the fact that the survey study 2008 has been uploaded 21 May 2010 and SQS was able to validate all relevant issues regarding GS 2.1 requirements (additionality, baseline, project scenario, monitoring plan etc.) it was accepted that the survey study 2009 will be uploaded once the survey study 2009 is conducted. See FAR 1.
<b>Project database.</b> Please make sure to upload the project database in the GS registry (name, location, baseline fuel, date of installation of biodigester, etc.)	Uploaded 21 May 2010.
<b>Non-renewable biomass fraction.</b> Please make sure to provide a detailed discussion on the evaluation of the non-renewable biomass fraction of the wood fuel used in the baseline. Please also provide a sensitivity analysis showing in the form of a summary table the impact of a variation of the main parameters used to derive the NRB, on the resulting emission reductions, and briefly discuss in the table why the chosen values are conservative enough. Please try to sense-check the computed NRB fraction with potentially available studies that looked into the renewable nature of biomass resources in the considered region or neighbouring regions with similar boundary conditions, and with FAO national data.	It is described in the „REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD LEVEL" [32].
<b>Calculation of Emission Reduction.</b> Please upload the complete and detailed spreadsheet used for the calculation of the baseline emissions, project emissions and emission reductions. Note that emission reductions are increasing from year 8 to 10 although the cumulative number of biodigesters is not.	Uploaded 24 May 2010.
<b>Methane GWP.</b> Please revise the methane GWP in line with the IPCC 2006 guidelines, i.e. 21 instead of 25, and revise the calculation of the baseline and emission reductions accordingly.	The calculations are corrected. See CAR 3 in this report.
<b>Standard deviation</b> – Please clarify the discrepancy between the calculated standard deviation under step 2 (3.68) and the value used in Step 3 to determine BEth (3.85).	This point is revised.
<b>Do no harm assessment.</b> The DNHA must be easily reproducible by readers, and when possible must refer to publicly available and easily accessible reference sources. Please therefore include the exact reference sources (inc. page numbers) for	The Do no harm assessment is completely revised in the Gold Standard Passport [27]. See CAR 4 in this report.

<p>all relevant safeguarding principles and when a safeguarding principle is not considered relevant, please provide a reference source to justify the statement unless objectively obvious.</p>	
<p><b>Labor Standards.</b> Considering that there is wide-scale deployment of the bio-digester technology in 8 provinces and that several construction contractors are involved, proper labor practices (i.e. appropriate attire, protective gear, proper compensation of work hazards) should be ensured by the contractors and must be checked by the PBPO supervisors who go around checking construction sites. Please therefore provide an update regarding this process in the revised documentation.</p>	<p>The process is described In Part B.7.2. of the PDD [45].</p>
<p><b>SP 11 Corruption.</b> Since spare parts will be sold through local shops (assumed private institutions and not run by NBP), please provide more information about how corruption will be avoided in the next few years of project implementation, i.e., the avoidance of unreasonable increase in prices of spare parts or after-sales services.</p>	<p>This section is revised.</p>
<p><b>DNA notification.</b> Please provide evidence that the DNA was notified (by email or letter) of this project going forward as a voluntary project. Projects going for the GS- VER stream do not require a letter of approval; however, it is necessary to inform the relevant national authority of the project's existence.</p>	<p>The DNA is informed by email on 24 September 2010. See CL 20 in this report.</p>
<p><b>Assessment of comments.</b> In the GS Passport and LSC report, the explanation to the 5th stakeholder comment is the same as the 6th stakeholder comment. The 7th comment and its explanation are not consistent in thought. Please revise this section to reflect the accurate exchange of comments.</p>	<p>This section is revised.</p>
<p><b>Stakeholder Feedback Round.</b> Considering that NBP has conducted several national, provincial, and local workshops, a feedback round was deemed as no longer necessary. However, since Gold Standard registration is requested starting January 2009 and most stakeholder consultations were conducted pre-2008, it is suggested that an online feedback round is conducted, possible stakeholders listed in Table 2.10 of the GS Toolkit are informed through national media and provincial announcements, and that a mechanism for collecting stakeholder comments during the feedback round is implemented (i.e. there is a hotline that stakeholders can call, local officials are informed that village stakeholders can come to them to report comments, government authorities and program personnel have open communication lines with the stakeholders). Please also ensure that</p>	<p>NBP has a very extensive home page on which all information is clearly available: <a href="http://www.nbp.org.kh">www.nbp.org.kh</a> There are sites "Contact us", "Publications" and new "Comments, please give us your comments and suggestion". Comments received by email or other means are processed professionally. Those are open lines to stakeholders. See CL 16 in this report.</p>

<p>relevant GS NGO Supporters<sup>1</sup> are invited to provide their feedback. Please justify the process taken for the feedback round and clearly explain the rationale behind the decision.</p>	
<p><b>DOE interviews of local stakeholders.</b> The DOE shall interview relevant local stakeholders during the on-site visit to ensure that the information in the Local Stakeholder Consultation Report indeed reflects adequately stakeholder inputs (concerns, positive and negative feedback) and that stakeholders are able to voice out their concerns now that the program is in full implementation phase. The DOE shall ensure that interviews with local stakeholders cover a representative sample of users, including women, and a representative sample of villages. Please ensure that the DOE has access to village workshop participants' lists in order to facilitate the interview process.</p>	<p>The described information could be observed during on-site visit and during interviews.</p>
<p><b>Double counting.</b> Please describe the mechanisms to be put in place to prevent any risk of double-counting due to other similar project activities that could potentially claim the same emission reductions, e.g. what are the control procedures in place to make sure that a retailer cannot claim carbon credits from the same biodigester in two different project activities?</p>	<p>The avoidance of double counting is included in Part B.5.7. of the PDD [45]. In addition, double counting to another CDM or voluntary market project is not allowed through the text in the contract between the owner/operator of the biodigester and NBP. See CAR 6 in this report.</p>
<p><b>Monitoring SD parameters.</b> Please include realistic future targets for the number of households with toilets (future target is 100% but project situation only has 10% of the households with toilets connected to the bio-digester) and the use of bio-slurry by farmers (future target is set to all households will use bio-slurry).</p>	<p>The targets are lower.</p>
<p><b>Monitoring of SD parameters – net cash inflow.</b> This can be kept confidential but the DOE must include this in the validation.</p>	<p>No demand relative confidential.</p>
<p><b>Transfer of emission reduction ownerships.</b> Please discuss what mechanism is (or will be) in place to insure a transparent and clear transfer of the ownership of the emission reductions from the users o the project proponent. (e.g. waiver form in exchange of subsidized biodigester, etc).</p>	<p>The transfer of the emission rights (VER credits) from the owner of the biodigester to NBP is described in a Biodigester Construction Contract [17]. See CL 14 and CAR 5 in this report.</p>
<p><b>Location of the project.</b> Please include the GPS coordinates reflected in Section D.1 of the GS Passport in Section A.4.1.4 of the PDD.</p>	<p>The coordinates are included. See CL 19 in this report.</p>
<p><b>Small-scale threshold.</b> Please remove the email quote provided in section B2 with regards to the small-scale upper threshold. The PDD should not contain informal communication. This information can however be provided to the DOE if necessary to</p>	<p>It is removed.</p>

confirm that GS does approve the 60,000 tCO2 upper threshold for this project activity.	
<b>Editing.</b> Please make sure the finalised PDD includes page numbers and all equations are numbered in order to allow for clear referencing in the registration review feedback form.	It is included.

Relevant Corrective Action Requests (CARs) and Clarification Requests (CLs) were resolved successfully and are summarized in appendix F (Validation Protocol).



### 3.10 Environmental impacts

Referring to Part D of the PDD [45].

There are no project specific environmental requirements by the authorities issuing the construction of biodigesters. An EIA is not required. Hence, SQS confirms that the project proponent followed all the requirements of the host country regarding the environmental impacts and standards.

### 3.11 Validation protocol

In order to ensure transparency and organize the corrective or additional information and measures a validation protocol was established for the project (see appendix F). The protocol shows in transparent manner the criteria (requirements), the means of validation and the results from validating the identified criteria including any resulting CAR, FAR and CL.

## 4 List of Interviewees and Documents Reviewed

The on-site visit and interviews were done according to the on-site visit program (see appendix A), which was communicated, to the project owner in advance of the audit.

The following stakeholders were interviewed during the validation (see appendix B).

The following documents were assessed during the validation (see appendix C).

## 5 Validation Team and Reviewer

The following matrix shows the names and roles of the members of the validation team and the reviewer. The technical reviewer is not a member of the validation team. Certificates of competence for each validation team member are included in appendix D to this report.

Name	Role (1)	Country	Duties					
			Desk review	On-site audit	Resolution of CAR & CL	Report	Internal review	Technical review
Mr. Rudolf Brodbeck	LA	Switzerland	X	X	X	X		
Mr. Michael Gassner	TM	Switzerland	X				X	
Mr. Oliver Stankiewitz	TR	Switzerland						X

(1) LA = Lead auditor/assessor; TM = Team member; TE = Technical expert (if any); TR = Technical reviewer

## 6 Quality Control

Cross checks and/or other plausibility checks undertaken during validation are mentioned in the report or in the protocol. The draft validation report, including the initial validation findings, is checked by an internal reviewer (a member of the validation team) before being submitted to the project participants. The final validation report undergoes a technical review before requesting registration of the project activity. The technical reviewer (not a member of the validation team) is qualified in accordance with SQS' qualification scheme for CDM validation and verification.

## 7 Appendix A: On-Site Visit Program

Time From	to	Topic	Function/ Department	Person(s) to contact
<b>16.08.2010</b>				
		<b><u>NBP Office Phnom Penh</u></b>		
09:00	09:30	Opening meeting / briefing		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
09:30	10:15	Local Stakeholder Consultation		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
10:15	10:45	Stakeholder Feedback Round		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
10:45	11:45	"Do No Harm" Assessment		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
11:45	12:30	Sustainable Development Matrix		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
12:30	14:00	Lunch		
14:00	18:00	PDD review Responsibilities GHG calculations / methods Monitoring plan		Lam Saoleng (NBP) Jan Lam (SNV), Eric Buysman
<b>17.08.2010</b>			Plant Code	Plant owner Supervisor
		<b><u>Site visit</u></b>		
08:00	09:00	Transport to site		
09:00	19:00	Site tour Stakeholder Interview "Do No Harm" Assessment Sustainable Development Matrix	807100415 807070093 807100450 807100451 807100528 807070090 307090947 307070212 307090946 307090914 307091063 307091029 307091030 307090899  307080658 307101520	Reth Thy Phoun Phen Moch Meth Pang Leng Pich Thuny Phoun Phen Seng Kimly Phoun Phen Pras Cheang Phoun Phen Siem Ngoun Pang Leng Sok Soth Chhen Dararith Yun Ten Cheang Sarith Seng Mab Chhen Dararith Soy Yen Chhen Dararith Lonh Meng Chhen Dararith Oun Sokhol Chhen Dararith Chab Nin Chhen Dararith Sun Chhen Dararith Sreyneang Lok Ny Chieng Sarith Sen Saran Chhen Dararith
19:00	20:00	Transport to Phnom Penh		

## 8 Appendix B: Interviews

Additional information for local issues	
Name:	Issues
Tha Chan	Legal, Baseline, Translation

Date: 16.08.2010		
Name	Position	Issues
Lam Saoleng	NBP Programme Coordinator	Whole project
Jan Lam	SNV Senior Biogas Advisor	Whole project
Eric Buysman	GERES Carbon finance consultant	Whole project
Meng Chanvibol	NBP Technical Manager	QS/QA system
Kethkeo Kannitha	NBP MIS Assistant	Data Base

Date: 17.08.2010		
Name	Position	Issues
Heng Binyik	PDA Director	Project activity, Sustainability assessment
Chieng Sarith	NBP Coordinator	Supervisor system, Sustainability assessment
Chen Chett	Supervisor	Training
Keo Chanthon	Farmer's wife Plant code 313090919	Baseline, Project activity, Training Sustainability assessment
Hoem Simoeurn	Farmer's wife Plant code 313101336	Baseline, Project activity, Training Sustainability assessment
Sorng Saray	Farmer's wife Plant code 301080601	Baseline, Project activity, Training Sustainability assessment
Toem Ton	Farmer, Plant Owner Plant code 301080621	Baseline, Project activity, Training Sustainability assessment
Heng Sokhom	Farmer, Plant Owner Plant code 301080652	Baseline, Project activity, Training Sustainability assessment
Som Thol	Farmer, Plant Owner Plant code 301080614	Baseline, Project activity, Training Sustainability assessment
Poch Hoy	Farmer, Plant Owner Plant code 313101313	Baseline, Project activity, Training Sustainability assessment
Thong Thon	Farmer, Plant Owner Plant code 301080683	Baseline, Project activity, Training Sustainability assessment

## 9 Appendix C: Documents Reviewed

Nr.	Title	Version
1	2010 05 24 National Biodigester Programme Cambodia - PDD V7.pdf	24/05/2010
2	PDD - NBP Cambodia - PDD V13.docx	27/10/2010
3	Biodigester User Survey Report	June 2007
4	Report on the Biodigester User Survey 2008	July 2008
5	2010 06 01 ANNEX 1 of the stakeholder consultation report.pdf	--
6	2010 06 01 ANNEX 5 of the Stakeholder Consultation report.pdf	January 2006
7	2010 06 01 National Biodigester Programme Cambodia - Stakeholder report.pdf	--
8	2010 06 01 National Biodigester Programme Cambodia - Gold Standard Passport.pdf	V3 24/05/2010
9	2010 07 30 NBP List of Documents (2).docx	--
10	2010 08 11 Plant to be visited on 17_Aug2010_KNLKCM.xlsx	--
11	2010 08 13 ex-ante baseline and emission reduction calculations final	--
12	Feasibility_study_Cambodia_2005.pdf	January 2005
13	2006 08 17 Invitation letter CDM workshop (3).docx	18 August 2006
14	2010 09 01 NBP Cambodia - Gold Standard Passport V5.pdf	30/08/2010
15	2010 09 02 LSC report- NBP - 020910 V5.pdf	--
16	2010 09 02 NBP Cambodia - PDD V10.pdf	02/09/2010
17	National Biodigester Programme Biodigester Construction Contract	--
18	Form 03-Const contract-VER hand over.pdf	--
19	NBP-GS Sustainable development feedback form.docx	--
20	Revised National Workshop Agenda-28-1-08.pdf	14 February 2008
21	Programme Arrangement and Implementation Document National Biodigester Programme in Cambodia	January 2006
22	Extension of Memorandum of Understanding between the Ministry of Agriculture, Forestry and Fisheries and SNV Netherlands Development Organisation on Technical Assistance for a National Biodigester Programme for the period 2010-2012	29. Jan. 2010
23	2010 09 16 Finance Admin Procedure (NBP) revise 2010.docx	September, 2010
24	2010 09 17 LSC report- NBP V6.pdf	--
25	2010 09 17 NBP Cambodia - Gold Standard Passport V6.pdf	16/09/2010
26	2010 09 17 NBP Cambodia - PDD V11.pdf	16/09/2010
27	2010 09 27 GSPP - NBP Cambodia V7.docx	26/09/2010
28	2010 09 27 LSCR- NBP Cambodia V7.docx	--
29	2010 09 27 NBP FIRR calculations for 3 digester sizes.xlsx	--
27	2010 09 27 PDD - NBP Cambodia - PDD V12.docx	26/09/2010
30	LSCR- NBP Cambodia V8.docx	27/10/2010
31	CDM Baseline study on fuel use and manure management at household level	11-08-2006
32	REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD LEVEL	2010
33	Verification Report YPD	October 2008
34	2009 09 28 ODA statement[1].pdf	28.09.2009
35	2010 05 17 letter of no objection MoE[1].JPG	12.09.2005
36	Pre-feasibility Assessment	09.04.2010

37	Approval on Steering Committee for Biodigester Programme	08. Feb 2006
38	Approval on Steering Committee for Biodigester Programme	26. Nov 2008
39	2010 05 21 Dbase client list(1)	---
40	Memorandum of Understanding between SNV Netherlands Development Organisation and The Royal Government of Cambodia	11. August 2005
41	Cambodia National Biodigester Programme Implementation Plan Revision for the period: 2010, 2011 and 2012 with DGIS, BMZ and VER funding	December 2009
42	Carbon Finance Project Idea Note	July 2005
43	IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 and 4	2006
44	FW Stakeholder feedback	13. September 2010
45	PDD - NBP Cambodia - PDD V15	V 15

## 10 Appendix D: Certificates of Competence

Name: Mr Rudolf Brodbeck

<b>Scopes of expertise:</b>		
1	Energy industries (renewable/non-renewable sources)	X
	TA 1.1: Thermal energy generation from fossil fuels as well as thermal energy from solar	<input type="checkbox"/>
	TA 1.2: Energy generation from renewable energy sources	X
	TA 1.3: Other energy industries	X
2	Energy distribution	<input type="checkbox"/>
	TA 2.1: Electricity distribution	<input type="checkbox"/>
	TA 2.2: Heat distribution	<input type="checkbox"/>
3	Energy demand	<input type="checkbox"/>
	TA 3: Energy demand	<input type="checkbox"/>
4	Manufacturing	X
	TA 4.1: Cement sector	<input type="checkbox"/>
	TA 4.2: Aluminium	<input type="checkbox"/>
	TA 4.3: Iron and steel	<input type="checkbox"/>
	TA 4.4: Refinery	<input type="checkbox"/>
	TA 4.5: Other manufacturing industries	X
5	Chemical production	X
	TA 5.1: Chemical process industries	X
6	Construction	<input type="checkbox"/>
	TA 6.1: Construction	<input type="checkbox"/>
7	Transport	X
	TA 7.1: Transport	X
8	Mining/mineral production	<input type="checkbox"/>
	TA 8.1: Mining and mineral processes, excluding those included in TA 8.2 below	<input type="checkbox"/>
	TA 8.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
9	Metal production	<input type="checkbox"/>
	TA 9.1: Metal production	<input type="checkbox"/>
10	Fugitive emissions from fuels	<input type="checkbox"/>
	TA 10.1: Mining and mineral processes, excluding those included in TA 10.2 below	<input type="checkbox"/>
	TA 10.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	<input type="checkbox"/>
	TA 11.1: Chemical process industries	<input type="checkbox"/>
12	Solvent use	X
	TA 12.1: Chemical process industries	X
13	Waste handling and disposal	<input type="checkbox"/>
	TA 13.1: Waste handling and disposal	<input type="checkbox"/>
14	Afforestation and reforestation	<input type="checkbox"/>
	TA 14.1: Forestry	<input type="checkbox"/>
15	Agriculture	X
	TA 15.1: Agriculture	X

**Name: Mr Michael Gassner**

<b>Scopes of expertise:</b>		
1	Energy industries (renewable/non-renewable sources)	X
	TA 1.1: Thermal energy generation from fossil fuels as well as thermal energy from solar	<input type="checkbox"/>
	TA 1.2: Energy generation from renewable energy sources	X
	TA 1.3: Other energy industries	<input type="checkbox"/>
2	Energy distribution	<input type="checkbox"/>
	TA 2.1: Electricity distribution	<input type="checkbox"/>
	TA 2.2: Heat distribution	<input type="checkbox"/>
3	Energy demand	<input type="checkbox"/>
	TA 3.1: Energy demand	<input type="checkbox"/>
4	Manufacturing	<input type="checkbox"/>
	TA 4.1: Cement sector	<input type="checkbox"/>
	TA 4.2: Aluminum	<input type="checkbox"/>
	TA 4.3: Iron and steel	<input type="checkbox"/>
	TA 4.4: Refinery	<input type="checkbox"/>
	TA 4.5: Other manufacturing industries	<input type="checkbox"/>
5	Chemical production	<input type="checkbox"/>
	TA 5.1: Chemical process industries	<input type="checkbox"/>
6	Construction	<input type="checkbox"/>
	TA 6.1: Construction	<input type="checkbox"/>
7	Transport	X
	TA 7.1: Transport	X
8	Mining/mineral production	<input type="checkbox"/>
	TA 8.1: Mining and mineral processes, excluding those included in TA 8.2 below	<input type="checkbox"/>
	TA 8.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
9	Metal production	<input type="checkbox"/>
	TA 9.1: Metal production	<input type="checkbox"/>
10	Fugitive emissions from fuels	<input type="checkbox"/>
	TA 10.1: Mining and mineral processes, excluding those included in TA 10.2 below	<input type="checkbox"/>
	TA 10.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	<input type="checkbox"/>
	TA 11.1: Chemical process industries	<input type="checkbox"/>
12	Solvent use	<input type="checkbox"/>
	TA 12.1: Chemical process industries	<input type="checkbox"/>
13	Waste handling and disposal	X
	TA 13.1: Waste handling and disposal	X
14	Afforestation and reforestation	X
	TA 14.1: Forestry	X
15	Agriculture	X
	TA 15.1: Agriculture	X



Name: Mr Oliver Stankiewitz

<b>Scopes of expertise:</b>		
1	Energy industries (renewable/non-renewable sources)	X
	TA 1.1: Thermal energy generation from fossil fuels as well as thermal energy from solar	<input type="checkbox"/>
	TA 1.2: Energy generation from renewable energy sources	X
	TA 1.3: Other energy industries	<input type="checkbox"/>
2	Energy distribution	X
	TA 2.1: Electricity distribution	<input type="checkbox"/>
	TA 2.2: Heat distribution	X
3	Energy demand	X
	TA 3:1 Energy demand	X
4	Manufacturing	<input type="checkbox"/>
	TA 4.1: Cement sector	<input type="checkbox"/>
	TA 4.2: Aluminum	<input type="checkbox"/>
	TA 4.3: Iron and steel	<input type="checkbox"/>
	TA 4.4: Refinery	<input type="checkbox"/>
	TA 4.5: Other manufacturing industries	<input type="checkbox"/>
5	Chemical production	<input type="checkbox"/>
	TA 5.1: Chemical process industries	<input type="checkbox"/>
6	Construction	X
	TA 6.1: Construction	X
7	Transport	<input type="checkbox"/>
	TA 7.1: Transport	<input type="checkbox"/>
8	Mining/mineral production	<input type="checkbox"/>
	TA 8.1: Mining and mineral processes, excluding those included in TA 8.2 below	<input type="checkbox"/>
	TA 8.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
9	Metal production	<input type="checkbox"/>
	TA 9.1: Metal production	<input type="checkbox"/>
10	Fugitive emissions from fuels	<input type="checkbox"/>
	TA 10.1: Mining and mineral processes, excluding those included in TA 10.2 below	<input type="checkbox"/>
	TA 10.2: Oil and gas industry, coal mine methane recovery and use	<input type="checkbox"/>
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	<input type="checkbox"/>
	TA 11.1: Chemical process industries	<input type="checkbox"/>
12	Solvent use	<input type="checkbox"/>
	TA 12.1: Chemical process industries	<input type="checkbox"/>
13	Waste handling and disposal	X
	TA 13.1: Waste handling and disposal	X
14	Afforestation and reforestation	X
	TA 14.1: Forestry	X
15	Agriculture	X
	TA 15.1: Agriculture	X

## 11 Appendix E: Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CH <sub>4</sub>	Methane
CL	Clarification Request
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CPA	CDM Programme of Activities
DNA	Designated National Authority
ERU	Emissions Reduction Unit
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
IEE	Initial Environmental Examination
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill Gas
MP	Monitoring Plan
MSW	Municipal Solid Waste
MVP	Monitoring and Verification Plan
N <sub>2</sub> O	Nitrous oxide
NGO	Non-governmental Organisation
ODA	Official Development Assistance
PDD	Project Design Document
PoA	Programme of Activities
SDM	Sustainable Development Matrix
SQS	Swiss Association for Quality and Management Systems
UNFCCC	United Nations Framework Convention on Climate Change
VER	Voluntary Emission Reduction

**Swiss Association for Quality and Management Systems (SQS)**

Bernstrasse 103  
P. O. Box 686  
CH-3052 Zollikofen  
Tel. +41 31 910 35 35  
Fax. +41 31 910 35 45  
headoffice@sqs.ch  
www.sqs.ch

# Appendix F: Gold Standard Validation Protocol

**Enterprise**

Business account:

Company:

Address:

Phone/Fax:

E-Mail:

Contact person:

321147

National Biodigester Programme (NBP)

Department of Animal Production and Health

Trea village, Sarla street (street 371)

Sangkat Streung Meanchey

PO Box 2590

Phnom Penh, Cambodia

+855 23 992 609/+855 23 992 604

saoleng@nbp.org.kh

Mrs. Saoleng Lam

**Service**

Audit/Assessment:

Audit/Assessment beginning/end:

Project name:

GBZ/Report-No.:

Gold Standard Validation

12/07/2010 – 12/07/2011

National Biodigester Programme, Cambodia

321048/P29850.33

Project ID:

Project Stream:

Project Type:

Project Size:

Baseline Methodology:

GS751

VER

Biogas - Heat

Large-Scale

Indicative programme, baseline, and monitoring methodology for Small Scale Biodigester, Voluntary Gold Standard

**Team of auditors/assessors**

Mr Rudolf Brodbeck

Mr Michael Gassner

## Index

Introduction.....	2
Normative References/Documents.....	2
Protocol 1: Requirement Checklist .....	3
THE GOLD STANDARD REQUIREMENTS .....	3
PROJECT SPECIFIC REQUIREMENTS .....	20
Protocol 2: Summary of Requests .....	21

## Introduction

### Objective of validation ([GST] 3.1)

The objective of the validation process is to have an independent third party assess whether the project design fulfils the requirements set out by the Gold Standard. The Validator shall confirm that the project design, as documented in the PDD, Passport and Local Stakeholder Consultation report, is sound and reasonable and meets the relevant criteria.

### Requests ([VVM] 35-37)

- The DOE shall raise a corrective action request (CAR) if one of the following occurs:
  - (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
  - (b) The CDM requirements have not been met;
  - (c) There is a risk that emission reductions cannot be monitored or calculated.
- The DOE shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.
- The DOE shall raise a forward action request (FAR) during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.

## Normative References/Documents

No.	Title	Version
[GSR]	Gold Standard Requirements	2.1
[VVM]	Clean Development Mechanism Validation and Verification Manual	01
[GST]	Gold Standard Toolkit	2.1
[METH]	Indicative programme, baseline, and monitoring methodology for Small Scale Biogas Voluntary Gold Standard	Internet
[ADD]	Tool for the demonstration and assessment of additionality	05.2
[PDD]	PDD	V7
[GSP]	Gold Standard Passport	V3
[GSSR]	Local Stakeholder Consultation Report	
[VRYPD]	Verification Report YPD	2008
[BUS08]	Report on the Biogas User Survey 2008	July 2008
[BUS07]	Biogas User Survey Report	June 2007
[PL]	List of all plants	??
[PFA]	Pre-feasibility Assessment	03.12.2009
[HCNO]	Letter of Host Country No Objection	12.09.2005
[GSDM]	Sustainable development matrix	--
[GSMP]	Sustainability Monitoring Plan – table	--
[ODA]	ODA declaration	28.09.2009
[PAID]	PROGRAMME ARRANGEMENT and IMPLEMENTATION DOCUMENT NATIONAL BIODIGESTER PROGRAMME in CAMBODIA	January 2006
[EMU]	EXTENSION OF MEMORANDUM OF UNDERSTANDING BETWEEN THE MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES AND SNV NETHERLANDS DEVELOPMENT ORGANISATION ON TECHNICAL ASSISTANCE FOR A NATIONAL BIODIGESTER PROGRAMME FOR THE PERIODE 2010 - 2012	29. Jan. 2010

## Protocol 1: Requirement Checklist

Requirement	Ref.	MoV	Draft Concl.	Final Concl.																																																		
<b>1</b>	<b>The Gold Standard Requirements</b>																																																					
<b>1.1</b>	<b>START VALIDATION PROCESS</b>																																																					
	<p><b>Project documentation.</b> To support the validation stage, Project Proponents shall submit their full set of Gold Standard project activity documentation:</p> <ul style="list-style-type: none"> <li>the <i>Gold Standard Project Design Document</i></li> <li>the <i>Gold Standard Passport</i></li> <li>together with the supporting project documentation necessary for validation of the project activity against the Gold Standard requirements.</li> </ul> <p>This documentation shall be submitted via the <i>Gold Standard Registry and Project Administration System</i>.</p>		DR	OK																																																		
1.1.1 [GSR] VIII.e.3	<p>Comment:</p> <table border="1"> <thead> <tr> <th style="background-color: #cccccc;">Title</th> <th style="background-color: #cccccc;">Version</th> <th style="background-color: #cccccc;">uploaded</th> </tr> </thead> <tbody> <tr> <td>PDD</td> <td>V7</td> <td>30.05.2010</td> </tr> <tr> <td>REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD LEVEL</td> <td>2010</td> <td>21.05.2010</td> </tr> <tr> <td>Gold Standard Passport</td> <td>V3</td> <td>02.06.2010</td> </tr> <tr> <td>Local Stakeholder Consultation Report</td> <td>??</td> <td>02.06.2010</td> </tr> <tr> <td>Verification Report YPD</td> <td>2008</td> <td>21.05.2010</td> </tr> <tr> <td>Report on the Biodigester User Survey 2008</td> <td>July 2008</td> <td>21.05.2010</td> </tr> <tr> <td>Biodigester User Survey Report</td> <td>June 2007</td> <td>21.05.2010</td> </tr> <tr> <td>List of all plants</td> <td>??</td> <td>21.05.2010</td> </tr> <tr> <td>Pre-feasibility Assessment</td> <td>03.12.2009</td> <td>21.05.2010</td> </tr> <tr> <td>Letter of Host Country No Objection</td> <td>12.09.2005</td> <td>19.05.2010</td> </tr> <tr> <td>Sustainable development matrix</td> <td>--</td> <td>GS</td> </tr> <tr> <td></td> <td></td> <td>Passport</td> </tr> <tr> <td>Sustainability Monitoring Plan – table</td> <td>--</td> <td>GS</td> </tr> <tr> <td></td> <td></td> <td>Passport</td> </tr> <tr> <td>ODA declaration</td> <td>28.09.2009</td> <td>GS</td> </tr> <tr> <td></td> <td></td> <td>Passport</td> </tr> </tbody> </table>	Title	Version	uploaded	PDD	V7	30.05.2010	REVISED CDM BASELINE STUDY ON FUEL USE AND MANURE MANAGEMENT AT HOUSEHOLD LEVEL	2010	21.05.2010	Gold Standard Passport	V3	02.06.2010	Local Stakeholder Consultation Report	??	02.06.2010	Verification Report YPD	2008	21.05.2010	Report on the Biodigester User Survey 2008	July 2008	21.05.2010	Biodigester User Survey Report	June 2007	21.05.2010	List of all plants	??	21.05.2010	Pre-feasibility Assessment	03.12.2009	21.05.2010	Letter of Host Country No Objection	12.09.2005	19.05.2010	Sustainable development matrix	--	GS			Passport	Sustainability Monitoring Plan – table	--	GS			Passport	ODA declaration	28.09.2009	GS			Passport		
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		Passport																																																				
ODA declaration	28.09.2009	GS																																																				
		Passport																																																				
1.1.2 [GSR] 0.5	<p>The Toolkit comes with fixed <b>templates</b> which have to be used to report information being passed between project proponents, validators, verifiers and the Gold Standard.</p> <ul style="list-style-type: none"> <li>Gold Standard Passport (Annex R)</li> <li>Local Stakeholder Consultation Report (Annex Q)</li> <li>Sustainable development matrix (Annex I)</li> <li>Sustainability Monitoring Plan – table (Annex I)</li> <li>Cover Letter (Annex S)</li> <li>ODA declaration (Annex D)</li> <li>Terms &amp; Conditions (Annex M)</li> <li>Emissions Reduction Acquisition Agreement (CDM) (Annex O)</li> <li>Emissions Reduction Acquisition Agreement (JI) (Annex P)</li> </ul>	<p>[GSP] [GSSR] [GSP] [GSP] [GSP]</p>	<p>DR DR DR DR DR N/A N/A</p>	<p>OK OK OK OK OK CL 7 OK</p>																																																		
	Comment:																																																					
<b>1.2</b>	<b>PROJECT ELIGIBILITY</b>																																																					
1.2.1 [GSR] III.a.1	<p><b>General requirements.</b> All Gold Standard projects must be additional, contribute to sustainable development and result in real, measurable and verifiable permanent emission reductions.</p>	<p>[PDD] [GSP]</p>	<p>DR I</p>	<p>CAR 5 CL 14</p>																																																		

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>Comment:</p> <p>In the PDD and in the passport port "subsidy" is spoken of sometimes; in particular PDD page 24 -28. If it's a subsidy, then the project is not allowed as climate project. Rather the transfer of the emission rights from the owner/operator of the biodigester to NBP is settled with this amount. The transfer of the emission rights (VER credits) from the owner/operator of the biodigester to NBP is described in a contract.</p>				
<p>1.2.2 [GSR] III.a.2</p> <p><b>Previous announcement statement.</b> Project activities are NOT eligible for registration or crediting under the Gold Standard if an announcement has been made previously of the project going ahead without the revenues from carbon credits, unless the project has subsequently been cancelled or the design has been significantly revised. Project Proponents shall provide a <i>pre-announcement statement</i> in the <i>Gold Standard Passport</i>, attesting that no such previous announcement has been made. The Project Proponent shall be subject to the sanctions described in Section 10 of the Terms and Conditions for any material misrepresentations in the preannouncement statement.</p> <p>Comment: 2006 – 2008 credits before Gold Standard registration by HIVOS</p>	<p>[GSP] Page 8 [PDD] Page 15</p>			
<b>Eligible project activity location</b>				
<p>1.2.3 [GSR] III.b.1</p> <p><b>Gold Standard CDM host country.</b> Gold Standard CDM project activities must be located in a <i>non-Annex I country</i>, as defined by the UNFCCC (see section T.1.2.2 for references).</p> <p>Comment:</p>				N/A
<p>1.2.4 [GSR] III.b.2</p> <p><b>Gold Standard JI host country.</b> Gold Standard JI project activities must be located in an <i>Annex I country</i> with a commitment inscribed in <i>Annex B</i>, as defined by the UNFCCC (see section T.1.2.2 for references).</p> <p>Comment:</p>				N/A
<p>1.2.5 [GSR] III.b.3</p> <p><b>Gold Standard VER host country or state.</b> Gold Standard VER project activities may be located in any <i>host country or state</i>. However, where host countries or states have caps on GHG emissions, projects shall only be eligible if the Project Proponent has provided the Gold Standard Foundation with satisfactory assurances that an equivalent amount of allowances will be retired to back-up the GS VERs issued. Any AAUs may be retired for this purpose. Gold Standard credits will not be issued prior to confirmation by the relevant local authorities that an equivalent amount of allowances has been retired (see section T.1.2.2 for references).</p> <p>Comment: Cambodia National Biodigester Programme (NBP) is a joint venture intervention of the Cambodian Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Netherland Development Organisation (SNV). According to [EMU] page 3 Ministry of Agriculture, Forestry and Fisheries will take the ownership of the National Biodigester Programme. The contract [EMU] is signed by Ministry of Agriculture, Forestry and Fisheries Kingdom of Cambodia and Netherland Development Organisation Cambodia.</p>	<p>[GSP] Page 6 [PDD] Page 7</p>	<p>DR I</p>	<p>CAR 1</p>	<p>OK</p>
<p>1.2.6 [GSR] III.b.4</p> <p><b>Gold Standard VER host country or state – post-registration institution of caps on GHG emissions.</b> Projects that have been registered in a given <i>host country or state</i> prior to that country or state's adoption or implementation of a cap on relevant greenhouse gas emissions shall be required to retire allowances or otherdenominated units reflecting emission reductions to back-up issued VERs from the date any new cap is enforced.</p> <p>Comment:</p>				N/A
<b>Eligible project activity gases</b>				
<p>1.2.7 [GSR] III.c.1</p> <p><b>Eligible gases.</b> Only Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and/or Nitrous Oxide (N<sub>2</sub>O) are eligible for Gold Standard crediting, provided project activities comply with Gold Standard eligibility criteria.</p> <p>Comment: Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>)</p>	<p>[GSP] Page 9</p>	<p>DR</p>		<p>OK</p>

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.2.8 [GSR] III.c.2				N/A
<p><b>Project activities involving both eligible and ineligible gases.</b> Project activities involving the reduction of both eligible and noneligible greenhouse gases shall be eligible under Gold Standard for the crediting of emission reductions associated with eligible gases only.</p> <p>Comment:</p>				
<b>Eligible project types</b>				
1.2.9 [GSR] III.d.1	[GSP] Page 7	DR		OK
<p><b>Eligible project types.</b> Only two categories of project activities are eligible for Gold Standard registration: <i>Renewable Energy Supply and End-use Energy Efficiency Improvement project activities.</i></p> <p><b>Renewable Energy Supply.</b> This category of project activities is defined as the generation and delivery of energy services (e.g. mechanical work, electricity, heat) from non-fossil and non-depletable (Although making use of a depletable source, landfill gas projects are eligible under the Gold Standard.) energy sources. See Toolkit Annex C for additional eligibility criteria applied to specific types of project activities.</p> <p><b>End-Use Energy Efficiency Improvement.</b> This category of project activities is defined as activities that reduce the amount of energy required for delivering or producing non-energy physical goods or services. See Toolkit Annex C for additional eligibility criteria applied to specific types of project activities.</p> <p>Comment: Renewable Energy</p>				
1.2.10 [GSR] III.d.4	[GSP] Page 7	DR I		OK
<p><b>Specific additional eligibility criteria.</b> Gold Standard project activities in the above two categories must additionally comply with the specific eligibility criteria set out in Annex C of the Gold Standard Toolkit.</p> <p>Comment:</p>				
1.2.11 [GSR] III.d.5				N/A
<p><b>Project activities involving both eligible and ineligible project types.</b> Unless otherwise specified in the <i>Gold Standard documentation</i>, and in particular in the list of additional eligibility criteria provided in Annex C of the Toolkit, activities making use of a mix of renewable and non-renewable energy sources shall be eligible to claim credits for those emission reductions that are associated with the share of renewable energy sources in the total energy service delivered.</p> <p>Comment:</p>				
1.2.12 [GSR] III.d.6				N/A
<p><b>Bundled project activities.</b> Where project activities are submitted together for Gold Standard registration within a bundle of activities, each project activity shall individually be in compliance with the Gold Standard eligibility criteria. Eligibility criteria with regards to the scale of the project (see III.e.1 and III.e.2) shall apply to the bundle as a whole and not to the individual project activities.</p> <p>Comment:</p>				
1.2.13 [GSR] III.d.7				OK
<p><b>Programme of Activities.</b> Where a group of project activities is submitted together for Gold Standard registration within a Programme of Activities, each of these activities must be in compliance with the Gold Standard eligibility criteria. Micro-scale project activities cannot apply under a Programme of Activities.</p> <p>Comment:</p>				
<b>Eligible project scale</b>				
1.2.14 [GSR] III.e.1				N/A
<p><b>Gold Standard CDM and JI project activities.</b> Gold Standard CDM or JI project activities may be 'large-scale' or 'small-scale' project activities, as defined in accordance with UNFCCC rules and as explained in section T.1.2.1.</p> <p>Comment:</p>				
1.2.15 [GSR] III.e.2	[GSP] page 6 [PDD] page 17/18	DR I	CL 1	OK
<p><b>Gold Standard VER project activities.</b> Gold Standard VER project activities may be 'large-scale', 'small-scale' or 'micro-scale' project activities.</p> <p>'Large-scale' and 'small-scale' project activities are defined in accordance with UNFCCC rules, as explained in section T.1.2.1.</p> <p>'Micro-scale' project activities are those project activities associated with annual emission reductions of less than 5,000 tCO<sub>2</sub>-eq in each year covered by the Gold Standard <i>crediting period</i>.</p> <p>Comment: Large-scale project with methodology for Small Scale Biogasifiers. Average number of credits per year: 60'604. Limit for small scale activities = 60'000 tCO<sub>2</sub>/year</p>				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.2.16 [GSR] III.e.3</p> <p><b>Annual emission reductions in excess of selected project scale.</b> Where the maximum level of allowable annual emission reductions for a small-scale or micro-scale project has been exceeded, that project shall only be eligible for Gold Standard CERs, ERUs or VERs up to the maximum number of allowable credits under that project scale per annum. No GS VERs can be claimed for emission reductions generated over and above what is credited under a small-scale CDM or JI project.</p> <p>Comment: Average number of credits per year: 60,604 Different numbers on page 15, 3, 75, 57</p>	[PDD] page 15	DR I	CL 2 CL 3	OK
<p>1.2.17 [GSR] III.e.4</p> <p><b>Annual emission reductions for elements not covered by a CDM project activity.</b> GS VERs may be claimed for separate project elements not covered by a CDM project activity as long as they are validated separately as a VER project activity. See T.4.11.</p> <p>Comment:</p>				N/A
<b>Eligible methodologies for project activities</b>				
<p>1.2.18 [GSR] III.f.1</p> <p><b>CDM and JI project activities.</b> CDM and JI project activities must use an approved UNFCCC CDM methodology to be eligible for Gold Standard registration (see section T.2.2 for applicable methodologies). All Gold Standard project activity documentation must apply the most recent version of this methodology available at the <i>time of first submission</i> of the project activity for Gold Standard registration.</p> <p>Comment:</p>				N/A
<p>1.2.19 [GSR] III.f.2</p> <p><b>VER project activities.</b> VER project activities must use either an approved UNFCCC CDM methodology or a GS VER methodology to be eligible for Gold Standard registration (see section T.2.2 for applicable methodologies). All project activity documentation submitted to the Gold Standard must apply the most recent version of the selected methodology available at the <i>time of first submission</i> of the project activity for Gold Standard registration. This methodology and version may be used by the project activity until it is registered under the Gold Standard as long as the project activity is submitted for validation within 3 months after the <i>time of first submission</i> for Gold Standard registration.</p> <p>Comment: GS methodology: Indicative program, baseline, and monitoring methodology for Small Scale Biodigester</p>	[PDD] page 17	DR I		OK
<p>1.2.20 [GSR] III.f.3</p> <p><b>Bundle.</b> A bundle of micro-scale project activities making use of different methodologies may be submitted within the same PDD. CDM rules apply for small-scale projects.</p> <p>Comment:</p>				N/A
<p>1.2.21 [GSR] III.f.4</p> <p><b>Voluntary Programme of Activities.</b> VER CPAs may use different methodologies under the same VER PoA.</p> <p>Comment:</p>				N/A
<p>1.2.22 [GSR] III.f.5</p> <p><b>Baseline methodology and conservativeness.</b> Unless there is a convincing case for an alternative choice of baseline methodology, Project Proponents must use the approved methodology, and the option within this methodology, that results in the lowest baseline emissions. Guidelines are provided in section T.2.2.</p> <p>Comment:</p>	[PDD] page 17	DR I		OK
<p>1.2.22.1 [GST] 3.5.1</p> <p>Check that the PDD uses the latest version of the methodology and the latest interpretation from the EB at the time of first submission to the Gold Standard (as defined in the Gold Standard Requirements).</p> <p>Comment: Current version of the GS portal. No version number.</p>		DR		OK
<p>1.2.22.2 [GST] 3.5.1</p> <p>Check that the PDD describes the baseline methodology used.</p> <p>Comment:</p>	[PDD] page 19	DR		OK
<p>1.2.22.3 [GST] 3.5.1</p> <p>Check that the PDD describes the quantified baseline scenarios.</p>	[PDD] page 34 ff	DR		OK

MoV = Means of Validation, DR = Document Review, I = Interview, N/A = Not Applicable  
CAR = Corrective Action Request, CL = Clarification Request, FAR = Forward Action Request



Requirement	Ref.	MoV	Draft Concl.	Final Concl.
Comment:				
1.2.22.4 [GST] 3.5.1	[PDD] page 34 ff	DR		OK
Comment:				
1.2.22.5 [GST] 3.5.1	[PDD]	DR		OK
Comment: Integrated in different texts				
1.2.22.6 [GST] 3.5.1	[PDD] page 21 ff	DR I		OK
Comment:				
1.2.22.7 [GST] 3.5.1	[PDD] page 41/55	DR		OK
Comment:				
1.2.23 [GSR] III.f.6	<b>Proposed New Gold Standard VER methodologies.</b> Project proponents submitting a new VER methodology to the Gold Standard Foundation for approval shall follow the procedures provided in section T.5.1.			N/A
Comment:				
<b>Ineligible project activity finance</b>				
1.2.24 [GSR] III.g.1	<b>ODA Support.</b> Official Development Assistance (ODA) support for any project activity located in a country named by the OECD Development Assistance Committee's ODA recipient list will render that project activity ineligible for carbon crediting under the Gold Standard where the ODA is provided under the condition that the credits generated by the project activity will be transferred, either directly or indirectly, to the donor country providing ODA support. ODA is defined in section T.1.2.e.			OK
Comment:				
1.2.25 [GSR] III.g.2	[GSP] page 37 [PDD] page 71	DR I	CL 7	OK
Comment: The ODA declaration does not completely comply with annex D.				
<b>Relationship between GS CDM/JI submissions and GS VER submissions</b>				
1.2.26 [GSR] III.h.1	<b>Parallel submissions to the Gold Standard CDM/JI and VER streams.</b> A project activity may be submitted for registration to both the Gold Standard CDM/JI stream and the Gold Standard VER stream in parallel. <ul style="list-style-type: none"> <li>If the proposed CDM/JI project activity is successfully registered under the UNFCCC, the Gold Standard VER project activity shall be cancelled.</li> <li>If the proposed CDM/JI project activity is rejected by the UNFCCC, in order to continue registration of the project activity under the GS VER stream the project proponent must apply for a <i>Prefeasibility Assessment</i> in accordance with the procedure provided in section T.2.5.</li> <li>The Gold Standard VER project activity shall only be made public and be registered after an official communication with the UNFCCC on rejection of the project has been submitted by the Project Proponent to the Gold Standard Foundation, or after the Project Proponent has formally requested that the Gold Standard cancel registration under the GS CDM/JI stream for the project activity.</li> </ul>			N/A
Comment:				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.2.27 [GSR] III.h.2</p> <p><b>Gold Standard VER submission after UNFCCC rejection.</b> Following the rejection of a project activity by the UNFCCC due to the inapplicability of the methodology considered, a Project Proponent may apply for Gold Standard registration under the VER stream. This process is initiated through application for a <i>Pre-feasibility assessment</i> in accordance with the procedure provided in section T.2.5, if and after a revised methodology has been submitted to and approved by the Gold Standard as a Gold Standard VER methodology.</p> <p>Comment:</p>				N/A
<p>1.2.28 [GSR] III.h.3</p> <p><b>Upgrading GS VERs to GS CERs/ERUs during a crediting period.</b> A Project Proponent may seek to upgrade a Gold Standard VER project activity to a Gold Standard CDM/JI project activity at any time during the crediting period with respect to future emission reductions, provided the Project Proponent either applies under the Gold Standard CDM/JI stream before any GS VERs have been issued, or enters into an agreement with the Gold Standard Foundation according to which the project applicant commits to surrender to the Gold Standard Foundation, for immediate retirement, CERs or ERUs that will be issued in respect of GHG Reductions generated by the Project in an amount equal to VERs already issued. The agreement shall make use of the 'Gold Standard CDM Emission Reduction Acquisition Agreement' template or the 'Gold Standard JI Emission Reduction Acquisition Agreement' template provided as Annex O and Annex P in the Gold Standard Toolkit.</p> <p>Comment:</p>				N/A
<b>Project activity involvement in other certification or emissions trading schemes</b>				
<p>1.2.29 [GSR] III.i.1</p> <p><b>Upgrading VERs to GS VERs.</b> VER project activities registered, or to be registered, under another voluntary carbon crediting scheme may seek to upgrade a VER project activity to a GS VER project activity at any time during the crediting period with respect to future emission reductions, provided proof of the following:</p> <ul style="list-style-type: none"> <li>• The project activity opts out from the other voluntary project and the emission reductions of a given vintage are claimed only once, under one single scheme; and</li> <li>• The total duration of the crediting period does not exceed the <i>standard UNFCCC crediting period</i> (i.e. 10 years, or 7 years renewable a maximum of twice for 21 years in total) when all carbon credits sought by the Project Proponents are aggregated, regardless of the various carbon standards considered (see V.a.5).</li> <li>• The project proponent opts in for Gold Standard by delivering the full set of GS specific project documentation, or the project documentation provided under the other voluntary scheme together with a report highlighting and discussing the gaps between the requirements of the other voluntary scheme and the Gold Standard requirements ("Gap Analysis Report"). This report shall be validated by a DOE/AIE in accordance with the Gold Standard validation requirements. See also Toolkit, Chapter 3.</li> </ul> <p>Comment: 3 years HIVOS and 7 years GS Changed (27.10.2010) to 3 years HIVOS and 4 years GS</p>	[PDD] page 15	DR I		OK
<p>1.2.30 [GSR] III.i.2</p> <p><b>Certificate trading schemes.</b> Project activities claiming Green or White Certificates, or equivalent certificates, shall NOT be eligible for Gold Standard registration unless Project Proponents provide a clear and convincing demonstration that no double counting would arise from the issuance of Gold Standard carbon credits.</p> <p>Comment:</p>				N/A

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.2.31 [GSR] III.i.3</p> <p><b>European Union Greenhouse Gas Emissions Trading Scheme (EU ETS).</b> Project activities involving facilities under the EU ETS shall NOT be eligible for Gold Standard registration unless the Project Proponent has provided the Gold Standard Foundation with satisfactory assurances that an equivalent number of allowances under the EU ETS (termed 'EUAs') will be retired to back-up the Gold Standard VERs issued. All EUAs may be used for this purpose. Gold Standard credits will not be issued prior to confirmation by the relevant local authorities that an equivalent number of EUAs have been retired to back-up the Gold Standard credits issued.</p> <p>Comment:</p>				N/A
<b>1.3 PROJECT CYCLE FOR GOLD STANDARD REGISTRATION</b>				
<b>Registration requirement</b>				
<p>1.3.1 [GSR] IV.a.1</p> <p><b>Requirement of Registration.</b> Only eligible project activities that have been duly registered with the Gold Standard as GS CDM, GS JI, or GS VER projects and that have complied with all applicable steps set out in the Gold Standard Toolkit are eligible for Gold Standard crediting.</p> <p>Comment:</p>		DR I		OK
<p>1.3.2 [GSR] IV.a.2</p> <p><b>Gold Standard Branding.</b> Project Proponents who wish to use the Gold Standard Brand prior to registration should consult the <i>Gold Standard Terms &amp; Conditions</i>, at Annex M to the <i>Gold Standard Toolkit</i>.</p> <p>Comment:</p>				N/A
<p>1.3.3 [GSR] IV.a.3</p> <p><b>Retroactive Registration.</b> Project Proponents may seek Gold Standard retroactive registration after the <i>start of construction or implementation</i>, by applying to the Gold Standard for a <i>Pre-feasibility Assessment</i> in accordance with the procedure provided in section T.2.5, which shall, among other things, credibly and transparently demonstrate that the project satisfies Gold Standard criteria for additionality. The pre-feasibility assessment is initiated upon the payment of a fee (see fee schedule in Toolkit, Annex L). A prefeasibility assessment must be conducted for each one of the retroactive CPAs added to a Programme of Activities.</p> <p>Comment:</p>	[GSP] page 9	DR I		OK
<b>Applicable project cycle</b>				
<p>1.3.4 [GSR] IV.b.1</p> <p><b>Regular project cycle.</b> The <i>regular project cycle</i> applies to project activities that apply for Gold Standard registration (<i>time of first submission</i>) before the <i>start date of construction or implementation</i>.</p> <p><b>Key elements of the regular project cycle.</b> Key elements of the <i>regular project cycle</i> include: project planning, design and reporting (assessment of project eligibility, initial drafting of Project Design Document (PDD), selection of baseline and monitoring methodology, additionality assessment, sustainability assessment and creation of Sustainable Development Matrix and Sustainability Monitoring Plan, Local Stakeholder Consultation, drafting and submission of Stakeholder Consultation Report, project revisions as necessary, stakeholder feedback, and finalisation and submission of Gold Standard Passport and PDD); validation; Gold Standard registration review; project registration; monitoring; reporting; Gold Standard verification review; project verification; Gold Standard certification; and Gold Standard crediting/issuance.</p> <p>Comment:</p>				N/A
<p>1.3.5 [GSR] IV.b.3</p> <p><b>Retroactive project cycle.</b> The <i>retroactive project cycle</i> applies to project activities that apply for Gold Standard registration (<i>time of first submission</i>) after the <i>start date of construction or implementation</i>.</p> <p><b>Key elements of the retroactive project cycle.</b> Key elements of the <i>retroactive project cycle</i> include: project reporting (assessment of project eligibility, initial drafting of Project Design Document (PDD), selection of baseline and monitoring methodology, additionality assessment, sustainability assessment and creation of Sustainable Development Matrix and Sustainability Monitoring Plan); Gold Standard pre-feasibility assessment; stakeholder feedback; project revisions as necessary; validation; Gold Standard registration review; project registration; monitoring; reporting; Gold Standard verification review; project verification; Gold Standard certification; and Gold Standard crediting/issuance.</p>	[GSP] page 9	DR I		OK

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
Comment: Start date: 13 March 2006 Gold Standard registration 1 January 2009				
<b>1.4 GOLD STANDARD PROJECT CREDITING PERIOD</b>				
<b>Crediting Period</b>				
1.4.1 [GSR] V.a.1  <b>Duration of Gold Standard Crediting Period.</b> Gold Standard project activities that generate emission reductions are eligible to claim credits for no more than a 7-year period that can be renewed twice, for a total of 21 years, or a one-off 10-year period, consistent with the allowable <i>Standard UNFCCC Crediting Period</i> . Where a 7-year renewable period is chosen, the baseline and sustainability assessment must be renewed and revalidated after each 7-year period.	[GSP] page 9 [PDD] page 15	DR I		OK
Comment: Crediting Period: 10 years HIVOS from 13 March 2006 to 31 December 2008 Gold Standard from 1 January 2009 to 12 March 2016				
1.4.2 [GSR] V.a.2  <b>Start of the Gold Standard Crediting Period.</b> <ul style="list-style-type: none"> <li>• For VER project activities proceeding under the <i>regular project cycle</i>, the start date of the Gold Standard Crediting Period shall be the date of start of operation or a maximum of two years prior to Gold Standard registration, whichever occurs later.</li> <li>• For CDM or JI project activities proceeding under the <i>regular project cycle</i>, the start date of the Gold Standard Crediting Period shall be the date of registration under CDM or JI or a maximum of two years prior to Gold Standard registration, whichever occurs later.</li> <li>• Project activities proceeding under the <i>retroactive project cycle</i>, may be eligible for retroactive crediting for realised emission reductions prior to Gold Standard registration of a maximum period of two years.</li> <li>• The start date of the Gold Standard Crediting Period may be postponed for one year without justification required, or for up to two years if convincing justification is provided.</li> </ul>	[GSP] page 9 [PDD] page 15	DR I		OK
Comment: Start Gold Standard registration 1 January 2009				
1.4.3 [GSR] V.a.3  <b>Total crediting period.</b> With the exception of projects qualifying under Rule V.a.6.1, the total duration of the crediting period for Gold Standard project activities cannot exceed the duration of the <i>Standard UNFCCC crediting period</i> , regardless of project cycle and start date. See T.1.2.f.				N/A
Comment:				
1.4.4 [GSR] V.a.4  <b>Aggregation of crediting periods.</b> Where a Gold Standard project activity has been or is registered under one or more other voluntary carbon standards or certification schemes, the total crediting period under all schemes combined shall not exceed the Gold Standard crediting period when all carbon credits sought by Project Proponents under the Gold Standard and under other standards or schemes are aggregated. Gold Standard status shall immediately be withdrawn from any projects that are found to have violated this requirement and the Gold Standard Foundation reserves its right to pursue remedies in accordance with and pursuant to Section 10 of the Gold Standard Terms & Conditions.	[GSP] page 9 [PDD] page 15	DR I		OK
Comment:				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.4.5 [GSR] V.a.5</p> <p><b>Gold Standard VERs for project proponents seeking CDM or JI registration ('Pre-CDM VERs' or 'Pre-JI VERs')).</b> Project proponents that are in the process of seeking CDM or JI registration under the UNFCCC are eligible to claim Gold Standard VERs for emissions reductions achieved prior to CDM/JI registration under the following conditions:</p> <ul style="list-style-type: none"> <li>• Projects can claim Gold Standard pre-CDM VERs for a maximum of <u>one year</u> prior to the start of the CDM crediting period (date of registration under the UNFCCC) provided: <ul style="list-style-type: none"> <li>➢ The project developer provides proof that the final version of the Project Development Document (PDD) was submitted for CDM validation to the Designated Operating Entity (DOE) and creates a project entry for the pre-CDM VER 'clone' in the Gold Standard Registry prior to 31 December 2009; and</li> <li>➢ The reasons for the mismatch between the start of project operation and the CDM registration date are provided to the DOE and confirmed by the DOE as part of the Verification Report covering the GS VER period.</li> </ul> </li> <li>• Projects can claim Gold Standard pre-CDM VERs for a maximum of <u>two years</u> prior to the start of the CDM or JI crediting period (date of registration/determination under UNFCCC) provided the project proponent enters into an agreement with the Gold Standard Foundation according to which the project proponent commits to surrender to the Gold Standard Foundation, for immediate retirement, CERs or ERUs that will be issued in respect of GHG Reductions generated by the Project during the CDM or JI crediting period in an amount equal to the Pre-CDM VERs or Pre-JI VERs. The agreement shall make use of the 'Gold Standard CDM Emission Reduction Acquisition Agreement' template or the 'Gold Standard JI Emission Reduction Acquisition Agreement' template provided as Annex O and Annex P to the Gold Standard Toolkit, and no delivery is required for a grace period of the initial two years of issuance after CDM registration/JI determination.</li> <li>• Until December 31, 2009, Project Proponents may choose between the options outlined in Sections V.a.5.1. and V.a.5.2. Project Proponents must notify the Gold Standard in writing of the chosen approach if the Project Proponent intends to use either of these approaches for projects applying for registration.</li> </ul> <p>Comment:</p>				N/A
<b>1.5</b>	<b>ADDITIONALITY ASSESSMENT</b>			
	<b><i>Additionality Requirement</i></b>			
<p>1.5.1 [GSR] VI.a.1</p>	<p><b><i>Additionality.</i></b> All Gold Standard project activities must be demonstrated to be <i>additional</i>, meaning that they shall reduce anthropogenic emissions of greenhouse gases below those that would have occurred in the absence of the registered Gold Standard project activity.</p> <p>Comment: The decision for the project occurred in 2006. The conditions are in detail described in the „PROGRAMME ARRANGEMENT and IMPLEMENTATION DOCUMENT NATIONAL BIODIGESTER PROGRAMME in CAMBODIA" [PAID]. The document was signed on 13 March 2006. These data serve as a basis for the additionality.</p>	<p>[GSP] page 8 [PDD] page 20 ff</p>	<p>DR I</p>	OK
<p>1.5.2 [GSR] VI.b.1</p>	<p><b><i>Additionality tools.</i></b> Gold Standard CDM and JI project activities, of whatever scale and type, are required to use a UNFCCC-approved additionality tool to demonstrate project additionality. Additionality tools currently available are provided in section T.2.3.</p> <p>Comment:</p>			N/A



Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.5.3 [GSR] VI.c.1	[PDD] page 20 ff	DR I		OK
Comment: Tool for the demonstration and assessment of additionality				
1.5.4 [GSR] VI.b.2 VI.c.2	[PDD] page 20 ff	DR I		OK
Comment: Version 05.2				
1.5.5 [GSR] VI.c.3				N/A
Comment:				
1.5.6 [GST] 3.5.1		DR I		OK
Comment: "Tool for the demonstration and assessment of additionality" (Version 05.2)				
1.5.7 [GST] 3.5.1	[PDD] page 20	DR I		OK
Comment:				
1.5.8 [GST] 3.5.1	[PDD] page 23 ff	DR I	CAR 2	OK
Comment: The investment barrier is divided into NBP and farmers. <u>Investment barrier NBP</u> <ul style="list-style-type: none"> <li>The used numbers [PDD] Table 6 do not agree with the numbers in the [PAID] Table 11.</li> <li>The analysis [PDD] Table 6 occurs only via 3 years, not over the whole crediting period (2006 to 2016).</li> <li>It is not shown transparently why the project VER's needs; for example how much Biodigester is built without Vers and how much Biodigester is built with Vers.</li> </ul> <u>Farmers</u> <ul style="list-style-type: none"> <li>The used numbers [PDD] Table 5, 8, 9 do not agree with the numbers in the [PAID].</li> <li>The IRR analysis for one biodigester size (6 m<sup>3</sup>) should be complemented for the smallest and biggest biodigester size.</li> </ul>				
1.5.9 [GST] 3.5.1		I		OK
Comment:				
1.5.10 [GST] 3.5.1				OK
Comment:				
1.5.11 [GST] 3.5.1		I		OK
Comment: On-site visits				
1.5.12 [GST] 3.5.1	[PDD] page 44	DR I	CAR 3	OK
Comment: GWP <sub>CH4</sub> value applied 23 or 25. Please change to 21				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<b>1.6</b>	<b>SUSTAINABILITY ASSESSMENT</b>			
<b>Projects risks and benefits for sustainable development</b>				
1.6.1 [GSR] VII.a.1	<b>Risk of harmful impacts.</b> All Project Proponents are required to assess the risk that their project activities will have severe negative environmental, social and/or economic impacts through a 'Do No Harm' Assessment, to be completed in the project's Gold Standard Passport. See T.2.4.1.	[GSP] page 16	DR	OK
Comment:				
1.6.2 [GSR] VII.a.2	<b>Sustainable development benefits.</b> All Project Proponents are required to demonstrate that their project activities will have clear sustainable development benefits through a <i>Detailed Impact Assessment</i> , to be completed in the project's Gold Standard Passport. See T.2.4.2.	[GSP] page 19	DR	OK
Comment:				
1.6.3 [GSR] VII.a.3	<b>Monitoring project impacts on sustainable development.</b> All Project Proponents are required to elaborate a <i>Sustainability Monitoring Plan</i> to assist in monitoring the impact of project activities on sustainable development and in verifying that the project has indeed contributed to sustainable development. See T.2.4.3.	[GSP] Page 26	DR	OK
Comment:				
1.6.4 [GSR] VII.a.4	<b>Local, regional and national Environmental Impact Assessment (EIA) Requirements.</b> All Projects must fulfill host country requirements on environmental impact assessments at the local, regional and national levels. For micro-scale projects, a declaration must be submitted by the Project Proponent warranting that the project complies with local environmental regulations. See T.2.4.4.			N/A
Comment:				
1.6.4.1 [GST] 3.5.1	Check that the project activity conforms to host country (local, regional or national) requirements concerning environmental impact assessment (all sizes of projects).		I	OK
Comment:				
1.6.4.2 [GST] 3.5.1	For micro-scale projects, check that an owner declaration in the form of a letter or statement has been provided that guarantees that the project complies with local environmental regulations.			N/A
Comment:				
<b>'Do No Harm' Assessment</b>				
1.6.5 [GSR] VII.b.1	<b>Compliance with safeguarding principles.</b> Gold Standard project activities shall be in compliance with the list of <i>safeguarding principles</i> provided in section T.2.4.1. Project proponents shall assess their project against these <i>safeguarding principles</i> in accordance with the <i>guidelines</i> provided in Annex H.	[GSP] Page 16	DR I	CAR 4 OK
Comment: Titles: Labor standards, Environmental protection, Corruption Concerning principle 8: in the Biodigester methane is produced. The risk of an explosion is, however, small. The customers are trained for the secure dealing and different flyers are given.  Missing all 11 principles according Annex H				
1.6.6 [GSR] VII.b.2	<b>Adaptation and mitigation measures.</b> Project activities that violate or risk violating any of the <i>safeguarding principles</i> shall NOT be eligible for Gold Standard registration unless the design of the project is adapted to restore compliance with these principles or convincing mitigation measures are put in place to ensure the harmful effect will not occur. The Project Proponent is required to ensure that appropriate mitigation measures are implemented and monitored over the crediting period of the project activity.			
Comment:				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.6.7 [GSR] VII.b.3 <b>Bundle of project activities.</b> Project proponents shall conduct the 'Do No Harm' Assessment at the project activity level, unless convincing argumentation validated by a DOE is provided as to why this should not be required for the particular bundle. Comment:				N/A
1.6.8 [GSR] VII.b.4 <b>Programme of Activities.</b> Coordinating entities submitting a Programme of Activities for Gold Standard registration shall conduct the 'Do No Harm' Assessment at the <i>CPA-equivalent</i> or <i>VER-CPAequivalent level</i> , unless convincing argumentation validated by a DOE is provided as to why this should not be required for the particular Programme of Activities. Comment:				
<b>Detailed Impact Assessment – Sustainable Development Matrix ('SD Matrix')</b>				<b>[GST] Annex I</b>
1.6.9 [GSR] VII.c.1 <b>Benefits to Sustainable Development.</b> All Gold Standard projects must demonstrate clear benefits to sustainable development through completion of a <i>Detailed Impact Assessment</i> . See T.2.4.2. Comment:	[GSP] page 19	DR I		OK
1.6.10 [GSR] VII.c.2 <b>Sustainable Development Indicators.</b> Gold Standard project applicants shall assess their project activities against a series of twelve <i>Sustainable Development Indicators</i> in three categories: <i>Environment</i> , <i>Social Development</i> and <i>Economic and Technological Development</i> , in accordance with the guidelines provided in section T.2.4.2 and T.2.6. The results of this assessment are referred to as the 'SD Matrix'. The list of the indicators is provided in Annex I of the Toolkit. Comment:	[GSP] Page 19	DR I	CL 10	OK
1.6.11 [GSR] VII.c.3 <b>Minimum scoring for eligibility.</b> Gold Standard Project Proponents shall score each of the <i>Sustainable Development Indicators</i> either negative (-1), neutral (0), or positive (+1) in close collaboration with the local stakeholders, and against the <i>baseline</i> situation, i.e. the most likely situation if the project were not implemented. All indicators shall be given the same weight. In order to qualify for Gold Standard registration, project activities must at a minimum contribute positively to two of the three categories and be neutral to the third category. Guidelines are provided in section T.2.4.2 and T.2.6. Comment:	[GSP] Page 25	DR I		OK
1.6.11.1 [GST] 3.5.1 Check whether 'Do no harm' assessment has been based on accurate information, see Ch. 2.4.1, and that reference sources are included. Comment:	[GSP] Page 23-24	DR I		OK
1.6.11.2 [GST] 3.5.1 Scoring; are at least two of the sub-totals (categories) positive? Is the third sub-total at least neutral? Comment: Category Environment: 4=+, 1=0 Category Social development: 4=+ Category Economic and technological development: 3=+	[GSP] Page 25	DR I		OK
1.6.11.3 [GST] 3.5.1 Stakeholder consultation: check that the matrix has been completed together with the stakeholders, see Ch. 2.6. Comment: The SDM is not the blind sustainability assessment as required under the Gold Standard, but sustainable development was discussed in every workshop. The SDM is the sustainability assessment conducted by NBP in collaboration with an independent consultant. The points were checked during the on-site visit with stakeholder interviews; the same result was found.	[GSP] Page 19	DR I		OK
1.6.12 [GSR] VII.c.4 <b>Reproducibility.</b> The scoring of the <i>Sustainable Development Indicators</i> must be easily reproducible. Scoring shall be supported by convincing argumentation for each indicator, and shall systematically refer to publicly available information sources or to expert opinions. Guidelines are provided in section T.2.4.2 and T.2.6. Comment: Source is referenced	[GSP] Page 23	DR I		OK

MoV = Means of Validation, DR = Document Review, I = Interview, N/A = Not Applicable  
CAR = Corrective Action Request, CL = Clarification Request, FAR = Forward Action Request



Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.6.13 [GSR] VII.c.5  <b>Mitigation measures.</b> Project activities that do not comply with the minimum scoring requirements shall NOT be eligible unless the project design is altered to result in compliance, or mitigation measures are put in place to 'neutralise' some of the indicators scoring negatively. These mitigation measures shall be monitored over the crediting period of the project activity. Guidelines are provided in section T.2.4.2 and T.2.6.  Comment: No negative scoring	[GSP] Page 25	DR I		OK
1.6.14 [GSR] VII.c.6  <b>In-depth Sustainability Assessment.</b> Where a project's SD Matrix continues to reflect negative scores in comparison to the <i>baseline</i> situation after the Local Stakeholder Consultation, and where no change in design or mitigation measures are planned to be implemented, these indicator(s) shall be subject to a dedicated discussion with local stakeholders on whether a more <i>In-depth Sustainability Assessment</i> must be conducted by a third party on issues related to such indicators. This discussion and any subsequent <i>In-depth Assessment</i> shall be conducted in accordance with the guidelines provided in sections T.2.6.1 and T.2.7.  Comment:				N/A
1.6.15 [GSR] VII.c.7  <b>Bundle of project activities.</b> Project proponents shall conduct the <i>Detailed Impact Assessment</i> at the project activity level, unless convincing argumentation validated by a DOE is provided as to why this should not be required for the particular bundle.  Comment:				N/A
1.6.16 [GSR] VII.c.8  <b>Programme of Activities.</b> Coordinating entities submitting a Programme of Activities for Gold Standard registration shall conduct the <i>Detailed Impact Assessment</i> at the CDM Programme Activity (CPA) level or VER CPA equivalent level, unless convincing argumentation validated by a DOE is provided as to why this should not be required for the particular Programme of Activities.  Comment:				
<b>Sustainability Monitoring Plan</b>				<b>[GST] Annex I</b>
1.6.17 [GSR] VII.d.1  <b>Monitoring Plan.</b> All Gold Standard Project Proponents must develop a <i>Sustainability Monitoring Plan</i> to monitor the impact of project activities on sustainable development and verify if the project has indeed contributed to sustainable development, in order to assess eligibility for Gold Standard certification. See T.2.4.3.  Comment: [PDD]: The monitorings are described detailed. It is not unequivocal which organization is responsible for the single tasks, which writes the reports and releases the reports. For more transparency, it is helpful to exactly name the singlereports and forms. A clear flow of the documents would be helpful.	[GSP] Page 26 ff [PDD] page 62-64	DR I	CL 15	OK
1.6.18 [GSR] VII.d.2  <b>Monitoring parameters.</b> Project Proponents shall identify parameters that can be used to properly monitor each non- <i>neutral Sustainable Development Indicator</i> according to section T.2.4.3 and Annex I of the Toolkit.  Comment:	[GSP] Page 26 ff	DR I		OK
1.6.19 [GSR] VII.d.2  Project Proponents shall monitor these parameters over the <i>crediting period</i> and on a recurrent basis to measure the impact of their Gold Standard project activities on these <i>Sustainable Development Indicators</i> . The monitoring of <i>Sustainable Development Indicators</i> shall be verified for each verification period, as well as during each mandatory Verification site-visit.  Comment:	[GSP] page	DR I	CL 11 CL 12 CL 13	OK
1.6.20 [GSR] VII.d.3  <b>Non-neutral indicators.</b> All non-neutral indicators shall be monitored.  Comment: No negative scoring	[GSP] Page 25	DR I		OK

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.6.21 [GSR] VII.d.4	[GSP] Page 25	DR I		OK
<p><b>Mitigation and compensation measures.</b> All mitigation and compensation measures put in place to prevent violation or the risk of violating a safeguarding principle of the 'Do No Harm' Assessment or to 'neutralise' a Sustainable Development Indicator shall be monitored.</p> <p>Comment: No negative scoring</p>				
1.6.22 [GSR] VII.d.5		DR I		OK
<p><b>Sustainability Monitoring Plan.</b> Project Proponents shall submit their Sustainability Monitoring Plans to the Gold Standard Foundation, describing how and with what frequency they monitor the monitored parameters and associated indicators on a quantitative and/or qualitative basis, in accordance with the guidelines are provided in section T.2.4.3.</p> <p>Comment: In the passport</p>				
<b>1.7</b>	<b>GOLD STANDARD PROJECT MANAGEMENT</b>			
	<b>Local Stakeholder Consultation</b>			<b>[GST] Annex J</b>
1.7.1 [GSR] VIII.b.1	[GSSR]	DR I		OK
<p><b>Local stakeholder inputs.</b> Project proponents shall proactively invite the Gold Standard Foundation and the local stakeholders, including all Gold Standard supporter NGOs active in the host country of the project activity, to provide comments on proposed project activities in accordance with the guidelines provided in section T.2.6.</p> <p>Comment: They invited end users, government representatives, official NGO supporters, and other groups relevant to the Gold Standard.</p>				
1.7.2 [GSR] VIII.b.2	[GSSR] page 73	DR I		OK
<p><b>Notice to DNA and National Focal Point.</b> Project Proponent are required to notify the DNA or the National Focal Point about the existence of the project activity.</p> <p>Comment: The DNA is informed</p> <ul style="list-style-type: none"> <li>• LONO of DNA Cambodia from 12 September 2005 (CDM Project)</li> <li>• Regular contact (Mail 28 July 2008)</li> </ul>				
1.7.3 [GSR] VIII.b.3				N/A
<p><b>Local Stakeholder Consultation timeline.</b> Gold Standard Project Proponents proceeding under the <i>regular project cycle</i> shall conduct a Local Stakeholder Consultation at the design phase of their project activities. The consultation must take place prior to the date of <i>start of construction or implementation</i> of the project activity. Local stakeholders must be actively invited for comments.</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation.</p>				
1.7.4 [GSR] VIII.b.4	[PFA]	DR		OK
<p><b>Retroactive project cycle.</b> Project Proponents submitting a project activity for <i>retroactive registration</i> shall NOT conduct a Local Stakeholder Consultation but instead must apply for a <i>Pre-feasibility Assessment</i> in accordance with the procedure provided in section T.2.5.</p> <p>Comment: Date of submission: 3 December 2009 Date of feedback: 9 April 2010</p>				
1.7.5 [GSR] VIII.b.5	[GSSR] page 23	DR I		OK
<p><b>Public consultation meeting.</b> The <i>Local Stakeholder Consultation</i> shall include at least one public meeting, which shall be open to anyone willing to attend and which shall be conducted in accordance with the guidelines provided in section T.2.6.</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation. Participants were not publically invited. NBP has a very extensive home page on which all information is clearly available: <a href="http://www.nbp.org.kh">www.nbp.org.kh</a> There are sites "Contact us", "Publications" and new "Comments, please give us your comments and suggestion". Comments received by email or other mean are processed professionally. Those are open lines to stakeholders.</p>				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.7.6 [GSR] VIII.b.6</p> <p><b>Report on Local Stakeholder Consultation Meeting.</b> Project proponents must prepare a report on the Local Stakeholder Consultation meeting in accordance with the guidelines provided in section T.2.6. The report must be uploaded into the Gold Standard Registry within one month after the date of the meeting (or date of the last meeting if a series of meetings are held). Project Proponents must use the template provided in Annex J of the Toolkit in reporting on the meeting.</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation. Uploaded on 2 June 2010</p>	[GSSR]	DR		OK
<p>1.7.6.1 [GST] 3.5.1</p> <p>For checking that the requirements are met, please contact the most relevant local or national Gold Standard NGO supporters for additional information.</p> <p>Comment: All 53 NGOs were invited. The invitation of Save the Earth Cambodia, REEEP, WWF, Greenpeace, Mercy Corps and HELIO International could not be verified. [PFA] 5.</p>	[GSSR] page 18	DR I	CL 16	OK
<p>1.7.6.2 [GST] 3.5.1</p> <p>Check that: A Invitation tracking table has been filled out</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation. A lot of different workshops. Attendance list available. National workshop 6 December 2005, National workshop 2008, Provincial workshops e.g. 14 February 2006, Village workshops e.g. 16 February 2006, Bioslurry workshops. A summary see [GSSR] page 17</p>	[GSSR] page 16	DR I		OK
<p>1.7.6.3 [GST] 3.5.1</p> <p>Check that: Copies of invitations published/sent out are available</p> <p>Comment:</p>	[GSSR] page 20-23	DR I		OK
<p>1.7.6.4 [GST] 3.5.1</p> <p>Check that: A non-technical summary in local language has been included in the Local Stakeholder Consultation report, as well as an English summary.</p> <p>Comment:</p>	[GSSR] Annex 5	DR I		OK
<p>1.7.6.5 [GST] 3.5.1</p> <p>Check that: A participants list is present</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation.</p>	[GSSR] Annex 1	DR I		OK
<p>1.7.6.6 [GST] 3.5.1</p> <p>Check that: Stakeholder evaluation forms are available</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation.</p>				N/A
<p>1.7.6.7 [GST] 3.5.1</p> <p>Check that: Minutes of the meeting(s) are available</p> <p>Comment:</p>	[GSSR] page 38-55	DR I	CL 17	OK
<p>1.7.6.8 [GST] 3.5.1</p> <p>Check that: Due account has been made on comments received</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation.</p>	[GSSR] page 56-57	DR I		OK
<p>1.7.6.9 [GST] 3.5.1</p> <p>Check that: If stakeholders required a revisit of the sustainable development assessment, this has been done</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation. The scoring of the sustainability assessment did not result in negative indicators. The overall outcome of the programme is very positive.</p>	[GSSR] page 58	DR I		OK
<p>1.7.6.10 [GST] 3.5.1</p> <p>Check that: If the consolidated sustainable development matrix is presented based on own 'preliminary' scoring and the matrix from the outcome of the blind stakeholder exercise.</p> <p>Comment: Retroactive project cycle; they shall NOT conduct a Local Stakeholder Consultation. Not available. This was not part of the original stakeholder consultation workshop meeting.</p>				N/A

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
1.7.6.11 [GST] 3.5.1		DR I		OK
Check that: Comments accepted and received by email or other means were actually considered. Comment: Comments received by email are processed professionally. Mail 5 August 2010: Regina S. Abesamis, Center for Development Management, Asian Institute of Management Mail 28 July 2010: Felipe Colturato				
1.7.7 [GSR] VIII.b.7	[GSSR]	DR		OK
<b>Gold Standard Applicant Status.</b> The <i>Local Stakeholder Consultation Report</i> must be uploaded on the <i>Gold Standard Registry and Administration System</i> for submission (see section T.2.9 and Annex J of the Toolkit), and the report approved, before the project activity can formally refer to itself as a Gold Standard applicant project activity. Comment: Uploaded on 2 June 2010				
1.7.8 [GSR] VIII.b.8				N/A
<b>Bundle of project activities.</b> The <i>Local Stakeholder Consultation</i> shall take place at the project activity level, and a report per project activity shall be prepared and submitted. However, coordinating entities may organise a single meeting for several project activities for implementation in parallel, as long as they can convincingly demonstrate that this does not compromise fulfillment of the requirements for the Gold Standard stakeholder consultation. Comment:				
1.7.9 [GSR] VIII.b.9				
<b>Programme of Activities.</b> The <i>Local Stakeholder Consultation</i> shall take place at the CPA (CDM Programme of Activities) or VER CPA-equivalent level, and a report per CPA or VER CPA-equivalent shall be prepared and submitted. However, coordinating entities may organise a single meeting for several CPAs or VER CPA equivalents for implementation in parallel, as long as they can convincingly demonstrate that this does not compromise fulfillment of the requirements for the Gold Standard stakeholder consultation. Comment:				
1.7.10 [GSR] VIII.b.10				N/A
<b>Confidentiality.</b> The <i>Local Stakeholder Consultation report</i> will be made publicly available on the <i>Gold Standard Registry and Administration System</i> once it has been approved. Prior to approval, only the Gold Standard Secretariat and Technical Advisory Committee will be able to access the report. Comment:				
<b>Project design documentation</b>				
1.7.11 [GSR] VIII.c.1	[PDD]	DR I		OK
<b>Project Design Document (PDD).</b> Project Proponents must submit project activity information fulfilling or relating to UNFCCC requirements to the Gold Standard Foundation. This shall be done using the latest version of the applicable UNFCCC Project Design Document (PDD) template that is available at the <i>time of first submission</i> of the project activities to the Gold Standard Foundation. Section T.2.1 provides a link to the relevant templates as a function of the stream for which Project Proponents apply. The Gold Standard Project Design Document will have to be submitted for the <i>validation</i> process; a revised version will be submitted for the <i>registration</i> process. Comment: Uploaded 30 May 2010 A revised version will be submitted for the <i>registration</i> process.				
1.7.12 [GSR] VIII.c.2	[GSP]	DR I		OK
<b>Gold Standard Passport.</b> For Gold Standard registration, additional information is required beyond that required by the applicable Project Design Document. Project Proponents are required to submit this additional project activity information (specific to Gold Standard requirements or that deviates from the UNFCCC requirements), to the Gold Standard using the latest version of the Gold Standard Passport template. The Gold Standard Passport will have to be submitted for the <i>validation</i> process; a revised version will be submitted for the <i>registration</i> process. Guidelines are provided in section T.1.5. Comment: See 1.1.1				

Requirement	Ref.	MoV	Draft Concl.	Final Concl.
<p>1.7.13 [GSR] VIII.c.3</p> <p><b>Gold Standard VER Programme of Activities.</b> Coordinating entities shall submit to a DOE the following documentation for validation:</p> <ul style="list-style-type: none"> <li>• A completed VER-POA-DD. Generic information on baseline and monitoring must be provided for each one of the different methodologies (or combination of methodologies) considered.</li> <li>• A completed VER-CPA-DD which is to be based on the application of the PoA to one real case, for each one of the different methodologies (or combination of methodologies) considered.</li> <li>• A <i>Gold Standard Passport</i> for each one of the VER CPAs equivalent.</li> </ul> <p>Comment:</p>				
<b>Stakeholder feedback round</b>				
<p>1.7.14 [GSR] VIII.d.1</p> <p><b>Purpose.</b> The <i>Stakeholder feedback round</i> is the second round of stakeholder consultation necessary to qualify for Gold Standard certification. For project activities applying under the regular project cycle, it is intended to cover all issues raised from the <i>Local Stakeholder Consultation meeting</i> and address how due account was taken of stakeholders' comments. For project activities applying under the retroactive project cycle, it is intended to cover all issues raised from the pre-feasibility assessment. Project Proponents under the <i>retroactive project cycle</i> shall therefore conduct the stakeholder feedback round according to the outcomes of the <i>Pre-feasibility Assessment</i>. Guidelines can be found in section T.2.11.</p> <p>Comment:</p>	[PFA] 5.	DR I	CAR 7	OK
<p>[PFA] 5.: However, since Gold Standard registration is requested starting January 2009 and most stakeholder consultations were conducted pre-2008, it is suggested that an online feedback round is conducted, possible stakeholders listed in Table 2.10 of the GS Toolkit are informed through national media and provincial announcements, and that a mechanism for collecting stakeholder comments during the feedback round is implemented (i.e. there is a hotline that stakeholders can call, local officials are informed that village stakeholders can come to them to report comments, government authorities and program personnel have open communication lines with the stakeholders). The conversion of this demand could not be shown.</p>				
<p>1.7.15 [GSR] VIII.d.2</p> <p><b>Documentation to be made available.</b> Stakeholders must have available for comment, at a minimum, the <i>Local Stakeholder Consultation Report</i>, the (revised) <i>Project Design Document</i>, the (revised) <i>Gold Standard Passport</i> and, if applicable, supporting documentation such as Environmental Impact Assessments (EIAs) for projects under the regular project cycle. See T.2.11.</p> <p>Comment:</p>			See 1.7.14	
<p>1.7.15.1 [GST] 3.5.1</p> <p>The latest version of the complete PDD (including the EIA, if applicable)</p> <p>Comment:</p>			See 1.7.14	
<p>1.7.15.2 [GST] 3.5.1</p> <p>A non-technical summary of the project (in appropriate local language(s)); and English summary.</p> <p>Comment:</p>			See 1.7.14	
<p>1.7.15.3 [GST] 3.5.1</p> <p>All relevant supporting information (if available, in appropriate local language(s)); in the case of an EIA, at least a one-page English summary is required.</p> <p>Comment:</p>			See 1.7.14	
<p>1.7.15.4 [GST] 3.5.1</p> <p>Additional, non-translated information must be made available as well and shall be translated to the local language upon any justified request of a stakeholder.</p> <p>Comment:</p>			See 1.7.14	
<p>1.7.16 [GSR] VIII.d.3</p> <p><b>Timing.</b> Project Proponents under the <i>regular project cycle</i> shall upload the above documentation on the <i>Gold Standard Registry and Administration System</i>, making it publicly available and open for comments for <b>at least two months</b> before the validation process can be completed, in accordance with the guidelines provided in section T.2.11.</p>				



Requirement	Ref.	MoV	Draft Concl.	Final Concl.	
	Comment:				
1.7.17 [GSR] VIII.d.4			See 1.7.14		
	<p><b>Reporting.</b> Project Proponents are required to report to the Gold Standard Foundation on the stakeholder feedback round organisation, outcomes and follow-up as part of the finalised Gold Standard Passport.</p> <p>Comment:</p>				
1.7.17.1 [GST] 3.5.1			See 1.7.14		
	<p>This shall include: A description of the procedure followed to invite comments, including addressing all the details of the oral hearing such as place, date, participants, language, local or national Gold Standard NGO supporters, etc.</p> <p>Comment:</p>				
1.7.17.2 [GST] 3.5.1			See 1.7.14		
	<p>This shall include: All written or oral comments received.</p> <p>Comment:</p>				
1.7.17.3 [GST] 3.5.1			See 1.7.14		
	<p>This shall include: The argumentation on whether or not comments are taken into account and the respective changes to the project design.</p> <p>Comment:</p>				
<b>2</b>	<b>Project specific requirements</b>				
2.1. [METH] Section I	The biodigesters in the programme are not included in another CDM or voluntary market project, (i.e. no double counting takes place).	[PDD] page 65	DR I	CAR 6	OK
	<p>Comment / Cross Reference: The correct construction of the Biodigester is checked and documented. It is not guaranteed yet, however, in this way that Biodigester is involved in other similar project activities that could potentially claim the same emission reductions. In the contract with the owner/operator of the Biodigester a corresponding stipulation shall be contained concerning "double counting".</p>				
2.2.	Documents and data are kept defined and protected?		DR I	CL 18	OK
	<p>Comment / Cross Reference: The storage of IT data is well controlled and described in the document "Finance and Administration Procedures". Paper documents to become in wood shelves kept, open and not protected before fire etc. For paper documents lacks a regulation (Where, Safety, How long, Responsibility).</p>				
2.3. [GST] 1.6	Is the identification of the site unequivocal (GPS coordinates)?	[GSP] page 10 [PDD] page 9	DR I	CL 19	OK
	<p>Comment / Cross Reference: The identification of the physical location of the biodigester installation occurs with name and address and not with the GPS coordinates.</p>				
2.4.	Are all points of the [PFA] done?	[PFA]	DR I	CL 20 FAR 1	OK
	<p>Comment / Cross Reference: Following points are still open.</p> <ul style="list-style-type: none"> <li>• Please upload as separate annexes in the registry the 2009 survey study.</li> <li>• Please provide evidence that the DNA was notified (by email or letter) of this project going forward as a voluntary project.</li> </ul>				

## Protocol 2: Summary of Requests

No.:	CL 1	Reference:	1.2.15
Validator request:	[PDD] page 17 Please explain the situation in detail including clarifications with GS		
Project owner response:	NBP has provided email communication with the GS proving that the methodology used, the methodology for small scale biodigester, does not distinguish between small scale and large scale activities, but that the methodology distinguishes between the scale of technology, whereby only small scale biodigesters are eligible (up to 20 m3 digester volume). The methodology has no ceiling for project activities or emission claims. The maximum biodigester size that NBP installs is 15 m3 and therefore the NBP project activities are eligible under the methodology and an unlimited amount of digesters can be bundled. The proof was given to SQS during the on-site visit.		
Validator conclusion:	In PDD V11 the text is adapted OK	Date:	15/09/2010

No.:	CL 2	Reference:	1.2.16
Validator request:	Different numbers on <ul style="list-style-type: none"> <li>- page 15, 3: estimated units</li> <li>- page 15, 75: annual emission reductions</li> <li>- page 15, 57: estimated annual emission reductions</li> <li>- page 15, 24: estimated new plants</li> </ul> Please correct it.		
Project owner response:	Is corrected, see the new PDD		
Validator conclusion:	In PDD V11 corrected OK	Date:	21/09/2010

No.:	CL 3	Reference:	1.2.16
Validator request:	Exclusive buyer HIVOS. Please explain the situation in detail.		
Project owner response:	From the PDD: Retroactive Gold standard certification of the credits is sought from the 1st of January 2009 until 12 March 2016. Retroactive registration of the credits generated before the 1st of January 2009 is not sought since these credits are already sold to HIVOS Climate fund and retired. Evidence of this is provided in Annex 5, which shows an accountant declaration of the credits bought by and exclusive buyer (the INGO HIVOS) of the generated credits between 13 March 2006 and the 31st of December 2008. These credits, pre-GS credits, were voluntary credits without a standard; the quality relied on the trust and the name that HIVOS and SNV have in the Netherlands. However, in 2008 some scandalous practices became apparent of other carbon brokers that sold credits from projects that were controversial and in some cases additionality could not be proved. This transformed the carbon market in the Netherlands and led to a demand for credits with a standard, preferably a premium standard with third party audits. Although HIVOS has a good name in the Netherlands, it became increasingly difficult to sell the credits from NBP and therefore it was decided to pursue accreditation of a premium standard from 1-1-2009: voluntary Gold Standard		
Validator conclusion:	In PDD V11 corrected OK	Date:	21/09/2010

No.:	CL 4	Reference:	PDD
Validator request:	Literature should be referenced in detail (exact title, version, source) <ul style="list-style-type: none"> <li>• page 21: line 6 "carbon baseline study" and footer</li> <li>• page 22: line 5 "statistical yearbook 2005"</li> <li>• page 23: footer 8</li> <li>• page 27: (Blok, 2007)</li> <li>• page 29: study 2004 by CCRD</li> <li>• page 58: ID 1, ID 2</li> </ul>		

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CAR = Corrective Action Request, CL = Clarification Request, FAR = Forward Action Request

**Date:**  
13/07/2011

**Report-No:**  
P29850.33

**Page:**  
22 of 32

- page 59: ID 3, ID 4, ID 5
- page 60: ID 6, ID 10, ID 11
- page 61: ID 13
- page 77: "revised CDM baseline study"

Project owner response: Changed, see new PDD

Validator conclusion: In PDD V11 corrected  
OK

Date: 21/09/2010

No.:	CL 5	Reference:	PDD
Validator request:	Literature should be referenced in detail (exact title, version, source) + page <ul style="list-style-type: none"> <li>• page 26: footer 11</li> <li>• page 43: NCV, MS, LF, VS</li> <li>• page 44: Bo, MCF, GWP</li> <li>• page 45: nT, 0.67, Fuel</li> <li>• page 46: NCV, EF, η</li> <li>• page 47: η</li> <li>• page 52: line 13 Atlas of Cambodia 2006</li> <li>• page 54: Table 20</li> <li>• page 61: ID 12, ID 16</li> </ul>		
Project owner response:	All the literature is referenced according the APA, the most common used scientific reference method.		
Validator request:	Literature should be referenced in detail with <b>page or table</b> NCV, MS, LF, VS, Bo, MCF, nT, 0.67, Fuel, EF, η, Atlas of Cambodia 2006, ID 12		
Project owner response:	<ul style="list-style-type: none"> <li>• page 26: footer 11: footer 11 is on page 23 and consist of personal communication, see PDD v12</li> <li>• page 43: NCV, MS, LF, VS: See PDD V12</li> <li>• page 44: Bo, MCF, GWP. Changed see PDD V12</li> <li>• page 45: nT, 0.67, Fuel, changed see PDD v12</li> <li>• page 46: NCV, EF, η changed see PDD v12</li> <li>• page 47: η, changed</li> <li>• page 52: line 13 Atlas of Cambodia 2006: correct web reference is provided, page number cannot be provided as it is a software tool, this is described in PDD version 12</li> <li>• page 54: Table 20: The table is stipulates the calculation, no new values are introduced. LC is referenced in on page 46, however to avoid confusing the source is double referenced.</li> <li>• page 61: ID 12, ID 16, changed. ID 16 will be the most recent guidelines and the source cannot be known in advance, this data will be available at verification as stipulated in the PDD</li> </ul>		
Validator conclusion:	OK	Date:	08/10/2010

No.:	CL 6	Reference:	PDD
Validator request:	Please replace "Error! Reference source not found" by the numbers <ul style="list-style-type: none"> <li>- page 43: NCV</li> <li>- page 45: nT, Fuel</li> <li>- page 46: NCV, EF</li> <li>- page 55: Table Error</li> <li>- page 97: Bibliography</li> </ul>		
Project owner response:	Changed, see new PDD V11		
Validator request:	Please replace "Error! Reference source not found" by "Table Error" and "Bibliography"		
Project owner response:	Converse of this request was not detected in PDD V11, for additional control the search function was used. It could be that the conversion to PDF was the cause of this. This will checked in the next PDF version of PDD V12.		
Validator conclusion:	OK	Date:	08/10/2010

No.:	CL 7	Reference:	1.2.25
Validator request:	The wording is the same but the sections and headings are different.		

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Add the headings with the official text complements [Project Owner] [Authorised Representative:] On behalf of:	
Project owner response:	Changed, see new PDD V11
Validator conclusion:	OK <span style="float: right;">Date: 21/09/2010</span>

No.:	CL 8	Reference:	PDD page 32
Validator request:	"Nepal since 11104" cannot vote. Please correct.		
Project owner response:	Changed, see new PDD V11		
Validator request:	"Nepal since 11104" is changed but the same situation page 91 "Cambodia 11104".		
Project owner response:	Changed in PDD v12		
Validator conclusion:	OK	Date:	08/10/2010

No.:	CL 9	Reference:	PDD page 4
Validator request:	Emission reduction 488666 tCO2 is different from page 15. Please correct it.		
Project owner response:	Changed, see new PDD V11		
Validator conclusion:	OK	Date:	21/09/2010

No.:	CL 10	Reference:	1.6.10
Validator request:	Page 22: Indicator Human and institutional capacity: Please score it at 0 or delete the parameters "Number of trained people and number of training centers, number of licensed biogas construction enterprises." Page 25: Quantitative employment and income generation: Please specify the jobs exactly (see [EMU] page 26/27).		
Project owner response:	Changed, see new GS passport V6		
Validator conclusion:	OK	Date:	21/09/2010

No.:	CL 11	Reference:	1.6.19
Validator request:	For each parameter please describes exact HOW, WHEN, By who		
Project owner response:	Changed in the monitoring plan, see passport V6 and the PDD V11		
Validator conclusion:	OK	Date:	21/09/2010

No.:	CL 12	Reference:	1.6.19
Validator request:	No 2: please deletes "number of biogas plants treating pig waste, number of biogas plants in total"		
Project owner response:	Changed, see Passport V6		
Validator request:	It's not changed ad page 27 "Chosen parameter 1". Please delete "number of biogas plants treating pig waste, number of biogas plants in total".		
Project owner response:	Number 2 now only contains number of toilets built, see GSPP version 7		
Validator conclusion:	OK	Date:	08/10/2010

No.:	CL 13	Reference:	1.6.19
Validator request:	No 4: what is measured exactly and how calculate does		
Project owner response:	Changed:		

**Reduction (RE) in firewood (F<sub>fw</sub>) and charcoal (F<sub>c</sub>) consumption for cooking compared to the baseline**

Calculation is as follows: average consumption of fuelwood per household (FW<sub>baseline, hh</sub>) in the baseline - average consumption of fuelwood in the project is the reduction of fuelwood per average household, that times the number of biodigesters (N<sub>biodigester</sub>) gives the total savings.

$$RE_{fuel} = (\sum FW_{baseline, hh} - \sum FW_{project, hh}) \times N_{biodigester}$$

Validator conclusion:	OK	Date: 22/09/2010
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No.:	CL 14	Reference: 1.2.1
Validator request:	The transfer of the emission rights (VER credits) from the owner/operator of the biodigester to NBP should be described in a contract. Please send a contract (original language and English translation) onto the auditor.	
Project owner response:	On 11 September an email is sent to the validator with two attachments, the contract in English and a scanned original.	
Validator conclusion:	OK	Date: 15/09/2010

No.:	CL 15	Reference: 1.6.17
Validator request:	It is not unequivocal which organization is responsible for the single tasks, who writes the reports and who gives the reports free. Please complement this information. For more transparency it's helpful to name the single reports and forms exactly.	
Project owner response:	Changed in the PDD V11, please look at page 66	
Validator conclusion:	OK	Date: 21/09/2010

No.:	CL 16	Reference: 1.7.6.1
Validator request:	The invitation of Save the Earth Cambodia, REEEP, WWF, Greenpeace, Mercy Corps and HELIO International could not be verified. Please explain why these organizations are not invited or send the invitation onto the auditor.	
Project owner response:	On 13 September an email is sent to all the supporters mentioned and other that were deemed relevant. The validator has received the email as well at the same date	
Validator conclusion:	OK	Date: 15/09/2010

No.:	CL 17	Reference: 1.7.6.7
Validator request:	[GSSR] page 47 + 48 The data cannot be right. Please correct it. Workshop of 2008 / 05. January 2009 / 24 Dez. 2009	
Project owner response:	Date 5 January 2009 is deleted, the data referred to the point in time that the minutes were entered in word. The other date, 24 dec 2009 is changed to 24 December 2008, justification: typo. See GSSR V6	
Validator conclusion:	OK	Date: 22/09/2010

No.:	CL 18	Reference: 2.2
Validator request:	The storage of data shall be documented with "Where, Safety, How long, Responsibility". The storage of paper documents shall be regulated.	
Project owner response:	The process is documented in the 'NBP Administrative and Financial Guidelines'. This document has been updated and the new version has been sent to the DOE on 17/09/2010.	
Validator conclusion:	OK	Date: 22/09/2010

No.:	CL 19	Reference: 2.3
Validator request:	Please explain why is not worked with the GPS coordinates and as the unequivocal identification is guaranteed.	

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Project owner response:	<p>On Thu 8/19/2010 8:00 an email is sent to Brodbeck Rudolf SQS why GPS won't work for NBP. In addition, in the PDD it is described how unique user identification is guaranteed, see the copy paste from the PDD hereunder. On 11 September a copy of a user contract was also emailed to SQS; the contract list the users details, contact details, both written and by fingerprint.</p> <p>Full details of the physical location of the biodigester installation will only be available after commissioning and acceptance. Once this is know, the data is entered into a central dedicated database, details include:</p> <ul style="list-style-type: none"> <li>• Name of head of the household;</li> <li>• Address of the household (Village, Commune, District &amp; Province);</li> <li>• Unique plant code xx/xx/xx/xxxx (province code/district code/construction year/plant code);</li> </ul>	
Validator conclusion:	<p>The identification of the site with GPS coordinates is to be realized only very much heavily as experiences show out of Vietnam (very extensive, inaccurate and expensive). The identification is guaranteed by the documents and comparison with the identity card of the owner.</p>	
Validator conclusion:	OK	Date: 22/09/2010

No.:	CL 20	Reference: 2.4
Validator request:	<p>Please explain the point.</p> <ul style="list-style-type: none"> <li>• Please upload as separate annexes in the registry the 2009 survey study.</li> <li>• Please provide evidence that the DNA was notified (by email or letter) of this project going forward as a voluntary project.</li> </ul>	
Project owner response:	<p>On 11 September an email is sent to SQS with evidence that NBP is in regular contact with the DNA (example of workshop agenda, invitation to workshop in 2006 on the decision to go ahead or not with CDM) and evidence of email communication, in addition, email exchange between Sum Thy, the head of the climate change office was included. In that email also a request was made on the annexes that shall be uploaded to the registry, as the 2009 survey is not conducted, the other surveys of the previous years were uploaded.</p>	
Validator request:	<p>The last contact with DNA was in August 2008 (mail July 29, 2008). At this time a CDM project spoken. Please inform the DNA the project running now as Gold Standard project.</p>	
Project owner response:	<p>The DNA is informed by email on 24 Sept 2010; the validator was in the CC of the email from NBP to the DNA.</p>	
Validator conclusion:	<p>If the survey study 2009 is conducted, then upload it in the GS registry ⇒ FAR 1</p>	
Validator conclusion:	OK	Date: 08/10/2010

No.:	CL 21	Reference: PDD V 11
Validator request:	<p>The follow link's don't works</p> <p>Page 11 footer Page 20 footer Page 24 footer <sup>12</sup> Page 30 footer Page 34 footer <sup>18</sup> Passport Page 35 footer</p>	
Project owner response:	<p>Changed in PDD V12 and the GS passport V7</p>	
Validator conclusion:	OK	Date: 08/10/2010

No.:	CL 22	Reference: PDD V 11 page 13
Validator request:	<p>Text is missing at the end of page.</p>	
Project owner response:	<p>Converse of CL 22 not found in PDD V11, the text continues on the next page</p>	
Validator conclusion:	OK	Date: 08/10/2010

No.:	CL 23	Reference: PDD V 11 page 26
Validator request:	<p>The calculation in table 8 is with 333.83. Please recalculate with 336 (ex table 7). The calculation in table 9 is with 226.83. Please recalculate with 229 (ex table 7).</p>	

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Please send the current excel file with calculations onto the auditor.

<b>Project owner response:</b>	Changed in the PDD and excel file is send to the validator.	
<b>Validator conclusion:</b>	OK	<b>Date:</b> 07/10/2010

<b>No.:</b>	CL 24	<b>Reference:</b>	PDD V 11 page 44 and 50
<b>Validator request:</b>	<p>It's explain NCV Charcoal = 93 Please reference the source of this number. Why do you don't calculate with 29.5 (IPCC Guidelines 2006, V 2, Ch 1, table 1.2). Please explain it under "Any comment".</p>		
<b>Project owner response:</b>	<p>The values are changed. The emission calculations are based on primary product to avoid double counting. Charcoal is a secondary product. IPCC stipulates that to produce 1 kg charcoal 6 kg wood is used. Hence, 1 kg charcoal equals 6 kg wood, and 6 kg wood has a NCV of 15.6 TJ/Gg *6 =93 TJ/6Gg. That is confusing and hence it is changed. The IPCC source is references in the PDD, the source is IPCC 1996 as IPCC 2006 does not provide guidance on this.</p>		
<b>Validator conclusion:</b>	OK	<b>Date:</b>	07/10/2010

<b>No.:</b>	CL 25	<b>Reference:</b>	PDD V 11 page 47 and 50
<b>Validator request:</b>	<p>It's explain EF Charcoal = 336000 Please reference the source of this number. Why do you don't calculate with 112000 (IPCC Guidelines 2006, V 2, Ch 1, table 1.4). Is it TJ or GJ? Please explain it under "Any comment".</p>		
<b>Project owner response:</b>	<p>Changed and explained in PDD V12. In CL 24 it was explained why the adapted NCV was used, the same we can do for the EF, to convert it to wood equivalent <math>(15.6/29.5)*112000</math> is the converted EF of charcoal expressed in wood equivalents, that is 336000. Again, the calculation all is expressed in wood equivalents. So 1 kg charcoal is 6 kg wood (see CL24), 1 kg wood has a NCV of 15.6 TJ/Gg and a EF of 112000 kg/TJ</p>		
<b>Validator conclusion:</b>	OK	<b>Date:</b>	07/10/2010

<b>No.:</b>	CL 26	<b>Reference:</b>	PDD V 11 page 45
<b>Validator request:</b>	<p>It's explain VS Cow = 2.3 and Bo Cow = 0.1 Please reference the source of this numbers. Why do you don't calculate with VS Cow = 2.8 and Bo Cow = 0.13 (IPCC Guidelines 2006, V4, Ch 10, table 10A-4). Please explain it under "Any comment".</p>		
<b>Project owner response:</b>	<p>The values suggested by the validator are for dairy cattle. In Cambodia animals are not held for dairy production, this is also not suggested in any of the project documentations. In the same guidelines as the validator suggests the values are provided for non-dairy cattle, these are VS cow 2.3 and Bo cow 0.1 and for VS dairy cow 2.8 and Bo dairy cow 0.13. Hence, the values are not used as they are not applicable</p>		
<b>Validator conclusion:</b>	OK	<b>Date:</b>	08/10/2010

No.:	CAR 1	Reference:	1.2.5
Validator request:	[PDD] Page 7: <ul style="list-style-type: none"> <li>• Project participants should be corrected to MAFF, NBP and SNV Cambodia</li> <li>• Organizational structure should be corrected and correspond to the [EMU]. Please exact organizational full name.</li> <li>• All project participants should be described in [PDD] Annex 1</li> </ul>		
Project owner response:	Is changed in the PDD, see the revised PDD V11		
Validator conclusion:	OK	Date:	21/09/2010

No.:	CAR 2	Reference:	1.5.8
Validator request:	[GST] 1.3: you must be able to argue in a convincing way that your project would not go ahead without carbon revenues. <ul style="list-style-type: none"> <li>• The used numbers [PDD] Table 6 shall agree with the numbers in the [PAID] Table 11.</li> <li>• The analysis [PDD] Table 6 occurs only via 3 years, it shall be over the whole crediting period (at least 2009 to 2016).</li> <li>• It shall be shown transparently why the project VER's needs; for example how much Biodigester is built without Ver's and how much Biodigester is built with Ver's.</li> <li>• The used numbers [PDD] Table 5, 8, 9 shall agree with the numbers in the [PAID].</li> <li>• The IRR analysis for one biodigester size (6 m<sup>3</sup>) shall be complemented for the smallest and biggest biodigester size.</li> </ul>		
Project owner response:	All is changed in the PDD. However, it is impossible to show how much would have been built without VERs as NBP has always relied on income from carbon finance. <b>Without this income the programme would no longer be in existence</b> and therefore it is not logic to speculate of the number of plants which would be built without VER income The tables 5,8 and 9 differ from the implementation document as prices of materials have changed and since registration is sought from the 1 of January 2009 data for 2009 onwards were used as these reflect reality the most and ensures therefore a reliable and feasible analysis. Note also that the implementation document referred to in [PAID] is outdated and no longer used, the validator has received a copy of the new implementation document.		
Validator conclusion:	OK	Date:	22/09/2010

No.:	CAR 3	Reference:	1.5.12
Validator request:	[PDD] page 44: GWP <sub>CH4</sub> value applied 23. Please change to 21 [PDD] page 52: GWP <sub>CH4</sub> value applied 25. Please change to 21 [PDD] page 61: GWP <sub>CH4</sub> not defined. Please change to 21 [GSP] page 36: point 5. Please correct		
Project owner response:	All changed, see new versions, note however, that a request to the GS is made to allow for GWP values that reflect the newest scientific insights endorsed by the IPCC. In case the GS allows using other GWP values, the PDD will be updated subsequently.		
Validator conclusion:	OK	Date:	21/09/2010

No.:	CAR 4	Reference:	1.6.5
Validator request:	Missing all 11 principles according Annex H. Please exact titles. <ol style="list-style-type: none"> <li>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.</li> <li>2 The project does not involve and is not complicit in involuntary resettlement.</li> <li>3 The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage</li> <li>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</li> <li>5 The project does not involve and is not complicit in any form of forced or compulsory labour</li> <li>6 The project does not employ and is not complicit in any form of child Labour</li> <li>7 The project does not involve and is not complicit in any form of discrimination based on gender, race,</li> </ol>		

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religion, sexual orientation or any other basis.  
 8 The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.  
 9 The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.  
 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.  
 11 The project does not involve and is not complicit in corruption.

Project owner response:	All changed, see new versions passport V6 and LSR V6	
Validator conclusion:	OK	Date: 22/09/2010

No.:	CAR 5	Reference:	1.2.1
Validator request:	The word "subsidy" should be replaced in the [PDD] and [GSP] for example through VERSettlement.		
Project owner response:	The term 'investment subsidy' is used since the beginning by the programme in the communication with all stakeholders varying from donor to farmer. The term is well understood and it expresses the underlying justification, the community co-finances the investment of the individual because the community is profiting from this investment. This logic is used all over the world. Changing the term 'subsidy' to VER settlement would create confusion and is therefore rejected.		
Validator conclusion:	OK	Date:	22/09/2010

No.:	CAR 6	Reference:	2.1
Validator request:	Please describe the mechanisms to be put in place to prevent any risk of double-counting due to other similar project activities that could potentially claim the same emission reductions, e.g. what are the control procedures in place to make sure that a owner / operator of the Biodigester cannot claim carbon credits from the same biodigester in two different project activities? Please send a contract (original language and English translation) onto the auditor.		
Project owner response:	<p>The farmer is officially handing over the VER rights to the programme by signing the construction contract. The programme registers the plants and assigns a unique plant number to each plant, in addition NBP conducts stringent controls to make sure that no phantom plants are listed. The stringent controls are:</p> <ol style="list-style-type: none"> <li>1. For all plants there must be a complete paper trail. This consists of a technical feasibility (form no.2), a construction contract and a plant completion form.</li> <li>2. All plants are registered at the concerned PBPO office before construction. The PBPO will randomly select 40% of these plants for quality control on site during the construction (form no. 6).</li> <li>3. Of the 40% QC during the construction, 20% is checked by NBP technicians as QC on QC. This checks are also used for coaching of masons and supervisors.</li> <li>4. 100% of the plants are checked upon completion but before commissioning by the PBPO supervisor (form no.9). This inspection form is also used for the official hand-over of the plant to the owner and for the disbursement of the subsidy. The gathered information is stored in the central Dbase.</li> <li>5. Of the 100% plant completion check, about 10% is randomly checked by NBP technicians and the date of these checks are compared with the data from the no.9 forms.</li> <li>6. Randomly 10% of all plants are checked by NBP technicians if the conditions for after-sales service and quality control are observed.</li> <li>7. After completion, the date of all plants are given to the bio-slurry extension services so follow-up visits can be made to fully integrate the plants in the farm management system.</li> <li>8. Annually a Biogas User Survey is conducted on a representative random sample of all plants constructed by an independent surveyor.</li> </ol> <p style="text-align: center;">Over the past 4 years, 3 occurrences of phantom plants have been discovered. All of them in the second year of the programme. The stringent controls by different actors and the severity of the actions</p>		

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when a false plant claim is discovered has eliminated the phantom plants from the programme

Note that all the masons, the biogas construction enterprises and the supervisors are known, trained and licensed by NBP. The license is revoked in case a phantom plant is reported and the concerned person will be reported to the police for fraud, this is a standard procedure.

There are no similar project operating in the project area, individual farmers claiming credits is unlikely due to the complicated and costly processes involved.

The contracts have been sent to SQS,

In conclusion, Double counting will not occur due to the stringent controls applied by NBP

**Validator conclusion:** In addition, double counting to another CDM or voluntary market project is not allowed through the text in the contract between the owner/operator of the biodigester and NBP.

**Validator conclusion:** OK **Date:** 22/09/2010

**No.:** CAR 7 **Reference:** 1.7.14

**Validator request:** Please explain the conversion of this demand.

**Project owner response:** On 13 September an email is sent to all the supporters mentioned and other that were deemed relevant. The validator has received the email as well at the same date. Also, during the on site visit the comment PFA 5, on the stakeholder feedback round, was discussed in detail and the validator suggested that a feedback form for comments on the website would be sufficient. NBP has included a feedback form on the website which is available 24 hours a day for comments and open to any visitor. In addition, all the contact details of NBP staff can be found on the website, ensuring that staff can always be contacted ( <http://www.nbp.org.kh/page.php?id=13>). For the comment form for feedback see <http://www.nbp.org.kh/comments.php>. The stakeholder report details how comments are processed.

**Validator conclusion:** OK **Date:** 22/09/2010



No.:	TR_CAR1	Reference:	GS Pre-feasibility Assessment of the retroactive registration request
TR request:	Eligibility: The PDD does not include a statement that post 2008 credits will not claimed under any other voluntary standard than the Gold Standard. The PDD has to be revised accordingly.		
Project owner response:	Statement is added in PDD v14 on page 15.		
	<b>A.4.3 Estimated amount of emission reductions over the chosen crediting period:</b>		
	<b>Credit period:</b> The project applies for a renewable crediting period of 7 years. Retroactive Gold standard certification of the credits is sought from the 1 <sup>st</sup> of January 2009 until 12 March 2016. The credits generated in that period have not and will not, under any condition, be claimed under any other voluntary standard.		
TR conclusion:	OK	Date:	03/02/2011

No.:	TR_CAR2	Reference:	GS Pre-feasibility Assessment of the retroactive registration request
TR request:	Additionality: The PDD reflects the project history including the contact to the World Bank (Lol 2006) and a baseline study (September 2006) only. There is no evidence that the consideration of carbon revenues has been decisive in the decision for the project to go ahead. The PP shall provide evidence as requested by GS.		
Project owner response:	<p>NBP is part of a larger network of SNV supported domestic biogas programs, the Asia Biogas Programme (ABP). Within that framework NBP is connected to programs that achieved carbon finance before NBP, notably the Nepal biogas support program (BSP). NBP considers carbon finance based on success of BSP in 2005<sup>1</sup>, as feasible and as financing component that should be mobilized to benefit the users by using it to finance the subsidy regime.</p> <p>The PP has evidenced in the PDD that <i>before</i> the start carbon revenue were considered as project finance and the PDD shows ample evidence that carbon revenue is required to maintain the subsidy regime.</p> <p>The history in the PDD also includes the workshop that was held after the completion of the CDM baseline study. The objective of the workshop was to choose an approach to carbon finance, CDM or voluntary market. NBP decided to pursue voluntary market in the hope it would be a more feasible approach compared to CDM. This is also elaborated upon in the PDD.</p> <p>In conclusion, there was never any doubt at the side of NBP that carbon finance would not be feasible and the CDM baseline study confirmed that. The question that the consideration of carbon revenues has been decisive for the project to go ahead is therefore not relevant. This decision was never taken as NBP never doubted the viability of carbon finance.</p> <p>The PDD also provides evidence that without carbon finance the investment horizon of the farmers would have been too long.</p>		
Validator request:	<p>The PP shall include a discussion as requested by GS <i>“Please discuss in detail how early consideration of carbon revenues has been decisive in the decision for the project to go ahead and provide evidences to support this claim.”</i></p> <p>Please limit the discussion on focus “ consideration of carbon revenues has been decisive in the decision for the project to go ahead“. Please limit the information on the NBP Project in Cambodia. The information should be for the period before 13 March 2006 (starting date of the project.)</p> <p>For transparency please add in PDD V14 page 20 „The prior consideration of the necessity of carbon finance“ a short section (e.g. table) with date, decision and exact reference incl. page with focus „ consideration of carbon revenues has been decisive in the decision for the project to go ahead“.</p> <p>PDD V14 page 21 it's written „it is foreseen in the initial plan that revenue from carbon offsets are needed to implement the NBP, without the projected income from carbon offsets the NBP would not</p>		

<sup>1</sup>BSP was the first biogas project to become registered worldwide.

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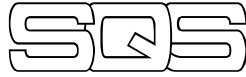


	<p>have started". Please include this statement in the short section above.</p> <p>For "provide evidences to support this claim" please send a copy of the referenced document / signed minute of the discussion onto auditor.</p>		
Project owner response:	<p>The discussion is not limited to 13 March as connected developments occurred thereafter. Such as the CDM baseline study. However, in PDD v15 it is shown that the carbon finance is always considered as program finance (thus the go-ahead decision is inherent to the program). In addition, the information cannot be limited to NBP as NBP is part of a larger network, the Asia Biogas Programme, it would be strange to disconnect NBP as it built on the experiences of other programs that did receive CDM financing under similar conditions.</p> <p>See the updated PDD v15 from page 20</p> <p>The auditor has received all the documents, including the PIN during the visit. Other documents mentioned can be found on <a href="http://www.nbp.org.kh/page.php?id=7">http://www.nbp.org.kh/page.php?id=7</a></p> <p>The LONO and WB correspondence are attached in the email with this document.</p>		
TR conclusion:	<p>There is no evidence that the consideration of carbon revenues has been decisive in the decision for the project to go ahead as requested by GS. However, SQS considers the argumentation line stated and documented in the PDD as sufficient to the fact that traditional ODA projects will be phased out after a initial implementation phase. To ensure that the NBP will be successful after the phasing out of ODA the Carbon Revenues have been decisive in the whole process and the overall set up of the NBP programme. Therefore SQS considers the response of the PP as sufficient.</p>		
TR conclusion:	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">OK</td> <td style="width: 50%;">Date: 09/03/2011</td> </tr> </table>	OK	Date: 09/03/2011
OK	Date: 09/03/2011		

No.:	TR_CAR3	Reference:	PDD cp. B.5. Identification of alternatives to the project activity & Baseline Scenario.
TR request:	<p>The PDD cp. B.5. has identified three scenarios only. The very key scenario that the Ministry of Agriculture, Forestry and Fisheries (MAFF) would work on a biogas program without Carbon Finance is weather identified nor discussed in the PDD. The baseline scenario that without Carbon Finance not a single biogas digester would have been built seems not to be conservative. The scenario of a biogas program by the Ministry without Carbon Finance (e.g. based on donor contribution, public funding, etc.) shall be discussed.</p>		
Project owner response:	<p>This is discussed on page 21 of the PDD, an extract is provided below:</p> <p><b>Step 1: Identification of alternatives to the project activity</b></p> <p><b>Sub-step 1a: Definitions of alternative scenarios to the proposed project activity.</b></p> <p>If the NBP would not have been supported with carbon finance, the following scenarios are plausible:</p> <ol style="list-style-type: none"> <li>1) Continued use of unsustainable fuel wood for cooking and kerosene for lighting;</li> <li>2) Continuation of the project activities without carbon finance;</li> <li>3) Switch to fossil fuels;</li> </ol> <p>NBP request the auditor to substantiate the claim that the scenario was not discussed</p>		
Validator request:	<p>On page 21 of the PDD V14 it's discussed the scenario "continuation of the project activities with or without donor contribution and carbon finance". The possibility of the public financing is not included. Please add the scenario: continuation of the project activities by the Ministry without Carbon Finance, based on donor contribution and/or public funding. Please include in this scenario a statement that not any law or public incentives exists to promote biodigesters in Cambodia. At the audit the alternatives were discussed in detail, partly emotional.</p>		
Project owner response:	Alternative 4 is included in PDD v15.		
TR conclusion:	Alternative 4 as been included and discussed accordingly.		
TR conclusion:	OK	Date:	09/03/2011

No.:	FAR 1	Reference:	2.4
Validator request:	If the survey study 2009 is conducted, then upload it in the GS registry		

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## Gold Standard Validation Protocol

Date:  
13/07/2011

Report-No:  
P29850.33

Page:  
32 of 32

Project owner response:	To be concluded at the verification stage.	
Validator conclusion:	n/a	Date: 22/09/2010

No.:	TR_CAR4	Reference:	PDD cp. B.5. Common Practice analysis
TR request:	The common practice analysis makes a statement that there are digesters built in Cambodia but with low quality, i.e. plastic digesters. Therefore the common practice analysis assumes that the ongoing biogas programs have marginally impact only. The PDD shall be revised including facts and figures on the common practice analysis. The PP shall include a discussion of the current use of bio digesters in Cambodia as requested by GS. The conclusion that there are not other relevant programs in Cambodia shall be based on public available references and/or on statements of relevant fully independent organizations.		
Project owner response:	The PDD includes public available references of relevant fully independent organizations to assess the common barrier analysis. The main report used is from Bridget McIntosh, 2004, Review and recommendations for Household biodigester in Cambodia, The Cambodia Research centre for Development. There are hardly any other sources that describe the pilot biogas initiatives in Cambodia.  As the PDD includes fact and figures, NBP requests to the auditor to substantiate this CAR.		
Validator request:	PDD V14 page 33 (common practice analysis) has no discussion of the current (2009/2010) use of biodigesters in Cambodia (e.g. other programs, number of other biodigesters then NBP, trend of these other Biodigester with numbers etc.). Bridget McIntosh, 2004, shows the situation before 2004, that's not the current situation. The PP shall include a discussion as requested by GS " <i>This section should include a discussion not only on similar programmes but also on the current use of biodigesters in Cambodia, confirming that without such a subsidised programme, these have remained marginally used.</i> " The statements shall be based on public available references and/or on statements of relevant fully independent organizations. Please a copy onto auditor. Please limit the discussion on Cambodia.		
Project owner response:	Added to the PDD on page 35: In 2009 and 2010 there were no other biogas programs active in the NBP project area. Only CRDT (Cambodia Rural Development Team) is sporadically building biodigesters in Kratie, outside the NBP project area, digesters which are for 100% subsidized. They have built less than 50 dome digesters; all their plastic digesters are broken and abandoned. CRDT cannot be regarded as a similar activity as they work on project basis, do not develop a sustainable biogas sector and their activities are marginal. There are no other available sources describing other biogas programs, because there are no other initiatives.  No documents are publically available as evidence. There is simply nothing going on besides NBP. However the report GHG mitigation in the agricultural sector for the Second National Communication (SNC) to the UNFCCC (not published) does assess the biogas sector. The SNC author is The Ministry of Environment (MoE) Cambodia and written by Eric Buysman ( <a href="mailto:ericshier@gmail.com">ericshier@gmail.com</a> ). The SNC does mentioning the current status of biogas in Cambodia. This source is added as a footnote. But this is not published and cannot be shared before the SNC is published, which can take years. The SNC is a government document.		
TR conclusion:	SQS has cross checked the information provided in the PDD with the report Progress of CRDT Biogas Installation by the Mekong Project (Sun Mao, 2008) and considers the statement as appropriate and sufficient.		
TR conclusion:	OK	Date:	09/03/2011

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