Validation Report

Bunge Guará biomass project

CDM.Val0236

21 de Novembro de 2005

SGS Climate Change Programme
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ANNEX 1
REPORT ON COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

Bunge Guará biomass project

Project No. CDM.Val0236

Date: 21/11/2005

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1 INTRODUCTION

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall make invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This report describes this process for this particular project.

2 PROJECT DETAILS

2.1 Project title

Bunge Guará biomass project.

2.2 Description of how and when the PDD was made publicly available

The Project Design Documents and its annexes were made publicly available from 22-10-2005 until 20-11-2005 on the website http://cdm.unfccc.int/Projects/Validation/view.html?ProjectId=7OBGVIRB9ZN5YMSMT33BGXA534XKKG&OE=SGS-UKL and comments were invited through the UNFCCC CDM homepage.

3 COMMENTS RECEIVED

3.1 Description of how comments were received and made publicly available

Comments could be submitted through a web interface or by email or fax.

As per procedures on public availability of the CDM project design documents and for receiving comments as referred to in paragraphs 40b and 40c of the CDM modalities and procedures, any received comments are displayed from the end of the 30 days commenting period, at the website listed in section 2.2.

3.2 Compilation of all comments received

No comments received to the DOE during the 30 days commenting period.

4 EXPLANATION OF HOW COMMENTS HAVE BEEN TAKEN INTO ACCOUNT

No comments received.

ANNEX 2
LIST OF DOCUMENTS ATTACHED

Bunge Guará biomass project
(CDM.VAL0236)

Project No. CDM.Val0236

Date: 21/11/2005

/1/ Annex 1: Report on Comments by Parties, Stakeholders and NGOs

/2/ Annex 2: Comprehensive list of documents attached

/3/ Annex 2: List of persons interviewed

/4/ Annex 4: Validation Protocol (UK.AU4.CDM.Val0236)

/5/ Annex 5: Overview of findings (UK.Findings.CDM.VAL0236)

/6/ Annex 6: Answers from local assessor

/7/ Annex 7: Validation Report (UK.AR6.SSC.CDM.VAL0236)

/8/ Annex 8: Modalities of communication

/9/ Letter of Approval from the Government of Brazil

ANNEX 3
Overview of documentation that has been reviewed and list of persons interviewed

BUNGE GUARÁ BIOMASS PROJECT

Project No. CDM.Val0236

Date: 21/11/2005

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This document is an Annex to the validation report for CDM project activity registration. It gives overview of documentation that has been reviewed and names of persons that have been an interviewed as part of the validation.

List of documents reviewed

/1/	Project Design Document, Bunge Guará biomass project. 16 November 2005, version 2.
/2/	Simplified baseline and monitoring methodology for selected small scale CDM project activity category, IC-Thermal energy for the user, 20 September 2005, version 06.
/3/	Fax Transmission about Carbon Credit Opportunity, 28/03/2003
/4/	Plano de Projeto e Desenvolvimento, FP-04-01, 20/05/2003
/5/	Certificate ISO 9001:2000 number SQ-3057, 28/08/2003
/6/	Procedimento de Operação da Fornalha IT-9G-12, 04/08/03
/7/	Método de verificação/calibração das balanças rodoviária: expedição e a granel IT-11-39, 07/07/03
/8/	Programa anual de verificação e calibração FP-11-20, 06/09/02
/9/	Gas invoice number 5626 issued on 31/10/2003 and 5128 issued on 01/11/2003
/10/	Biomass invoice number 5012 issued on 29/07/03 and 5008, 5010 issued on 28/07/03
/11/	Biomass invoice number 5421 and 5420 issued on 30/09/03
/12/	Biomass invoice number 1521 issued on 06/09/04 and 1537 issued on 10/10/04
/13/	Recebimento de lenha number 813 issued on 11/10/05 and 820 issued on 18/10/05
/14/	Worksheet deliver biomass control, 27/10/2005
/15/	Contract GUA-003/2004 between Bunge Fertilizantes S.A. and Imirá Agro Florestal Ltda, signed on 01 February 2004.
/16/	IBAMA record and environmental tax, 30/09/2003
/17/	Operational licence Number 15-0008-7 issued on 28/06/1988 by CETESB
/18/	Renewable operational licence number 1580/2004/CMg-FR by CETESB
/19/	Forest reposition tax 2003, 2004 and 2005
/20/	Emissions analysis, 19/08/03 and 12/08/04

List of persons interviewed

	Name and position	Company name	Date interviewed
/1/	Joaquim Leite Severo (Head of sulfuric acid department)	Bunge	November 7th, 2005
/2/	Wagner Chuqui (Manager)	Bunge	November 7th, 2005
/3/	Melissa Hirschheimer (Consultant)	Ecoinvest	November 7th, 2005
/4/	Rodrigo Leme (Consultant)	Ecoinvest	November 7th, 2005
/5/	Adalberto de Luca (Industrial unit)	Bunge	November 7th, 2005

Annex 4 - Validation Protocol

This validation protocol is designed to ensure that the project meets the requirements for CDM projects that are detailed in paragraph 37 of the CDM modalities and procedures. Each requirement is covered in a separate table. The following requirements are discussed in this protocol:

Requirement	Description	
Participation requirements	The participation requirements as set out in Decision 17/CP7 need to be satisfied	Covered in table 1
Baseline and monitoring methodology	The baseline and monitoring methodology complies with the requirements pertaining to a methodology previously approved by the Executive Board	Baseline methodology is covered in table 2 Monitoring methodology is covered in table 4
Additionality	The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity	Covered in table 3
Monitoring plan	Provisions for monitoring, verification and reporting are in accordance with relevant decisions of the COP/MOP	Covered in table 5
Environmental impacts	Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party;	Covered in table 6
Comments by local stakeholders	Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated	Covered in Table 7

	operational entity on how due account was taken of any comments has been received;	
Other requirements	The project activity conforms to all other requirements for CDM project activities in relevant decisions by the COP/MOP and the Executive Board.	Covered in Table 8

Small sale projects and AR projects have specific requirements which are covered in Table 9-11. Small scale SSC projects have special requirements which might deviate from the requirements of other CDM projects. These requirements are tested in table 9. Please note that some questions in table 9 overlap with questions in the other tables. Where the questions in table 9 contradict or overlap questions elsewhere in the checklist, the questions in table 9 shall prevail. For the validation of small scale projects, assessor is required to address the questions in table 9 first before starting with the questions in the other tables.

Further remarks on the use of this document:

- text in *italic blue* is meant as guidance for the assessor
- MoV = Means of Verification, DR= Document Review, I= Interview

This protocol should be adapted as required. For example, if the project is not a small scale project or an AR project, some tables can be deleted.

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website) All CDM project activities

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	DR	PDD	No Annex I in this project.	Ok	OK

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
To this end, the DNA of an Annex 1 Party shall submit a letter of approval consistent with the requirements of Annex 6 to EB 16. This also requires that the non-host party has nominated a DNA to the UNFCCC					
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily *To this end, the DNA of a Non-Annex 1 Party shall submit a letter of approval consistent with the requirements of Annex 6 to EB 16, also confirming that the project contributes to sustainable development. This also requires that the host party has nominated a DNA to the UNFCCC*	DR	PDD	No letter of approval from Brazil. The letter of approval only will be obtained on delivery of the validation report.	CAR 1	
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects *Check UNFCCC website for most recent list – some countries could be excluded from participation if they have failed to fulfil other inventory and reporting requirements*	DR	PDD	Yes, Brazil – date of ratification 23-August-2002	Ok	OK
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the	DR	PDD	Yes, the project activity uses renewable biomass to substitute fossil fuel.	Ok	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
baseline; and the project can be reasonably shown to be different from the baseline scenario *To this end, the project shall correctly apply approved baseline and monitoring methodologies. See Table 4 below*					
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available *These will have resulted from the publishing of the PDD during the validation process. Note that regular and SSC projects are to be displayed for 30 days, "normal" AR projects are to be displayed for 45 days*	DR	PDD UNFCCC web site	PDD publicly available until 20/11/2005. http://cdm.unfccc.int/Projects/Validation/view.html?ProjectId=7OBGVIRB9ZN5YMSMT33BGXA534XKKG&OE=SGS-UKL	Ok	Ok
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance *See Table 8 below. Note requirements for regular and AR projects are different*	DR	PDD	Yes.	Ok	Ok
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR	PDD	No ODA has been provided for this project. The project makes use of your own resource.	Ok	Ok
1.8 For AR projects, the host country shall have issued a communication	N/A	N/A	N/A	N/A	N/A

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?					
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects	DR	PDD	Yes. (see table 9)		
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment. *Project Documentation should be complete and should also reflect information presented in the course of the validation assessment so this information is available to other stakeholders. Alternatively, information provided will need to be discussed in detail in the validation report.*	DR	PDD	To be confirmed by local assessor. It was possible to check the information mentioned in the PDD, during validation assessment.	Verify	Ok
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner? *All information must be verified, this includes all the default factors and parameters used in the calculations. For example for a Landfill Gas project, all factors used in the calculation of the Methane Correction Factor should be discussed and verified*	DR	PDD	What are the references/source of data about eucalyptus wood density (D=0,5t/m³) and LHV (the lower heating value of the biomass) used to calculate LPG (see PDD, page 17)? The PDD was revised to clarify the references and source of data about eucalyptus wood density and lower heating value of the biomass used to calculate the LPG. NIR 4 has been closed out.	NIR 4	Ok

Table 2 Baseline methodology(ies) (Ref: PDD Section B and E and Annex 3 and AM) Normal CDM projects only – N/A

Table 3 Additionality (Ref: PDD Section B3 and AM) Normal CDM projects only – N/A

Table 4 Monitoring methodology (PDD Section D and AM) Normal CDM Projects only – N/A

Table 5 Monitoring plan (PDD Annex 4) Normal CDM Project activities only – N/A

Table 6 Environmental Impacts (Ref PDD Section F and relevant local legislation) Normal CDM Project Activities only – N/A

Table 7 Comments by local stakeholders (Ref PDD Section G) All CDM Project Activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Project developers need to invite comments by local stakeholders and a summary of the comments received should be provided. The project developer will need to show that due account was taken of any comments that have been received					
7.1 Have relevant stakeholders been consulted?	PDD	DR	Verify invitation for local stakeholders. Yes.	Verify	Ok
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	To be confirmed by local assessor. The letters was sent in local language.	Verify	Ok
7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	To be confirmed by local assessor. Letters was sent according Brazilian Resolution #1, 2003/09/11. Copy of the letters was provided during validation assessment.	Verify	Ok
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	No comments received.	Verify	Ok
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	No comments received.	Verify	Ok

Table 8 Other requirements All CDM project activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document *The project needs to correctly complete a Project Design Document, using the current version and exactly following the guidance – note that regular, SSC, AR and AR SSC each use different PDD templates, but to date, the ARSSC PDD is not available* *Obtain a copy from the CDM website, and a copy of the guidance to accompany the PPD. See Tables 9 and 11 for guidance on how to find the correct version of the PDD guidance for SSC and SSC AR projects. Perform a section by section / line by line check on the contents of the PDD.* *In a WORD version of the PDD, use track changes mode to note any deviations (however minor) from the PDD. Save this document with tracked changes showing and append it to the Validation report as evidence of the auditing process. Compile a list of the differences in UK.Findings.CDM. Split these into Editorial and Substantive comments. Editorial issues can be listed on one CAR; substantive findings can be listed as individual findings*					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	No changes to the PDD format have been observed.	Ok	Ok
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Yes.	Ok	Ok
8.2 Technology to be employed *COP 10 Re-emphasized that clean development mechanism project activities should lead to the transfer of environmentally safe and sound technologies and know-how. The validator should ensure that environmentally safe and sound technology and know-how is used.*					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	Yes.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	Yes. “Fixed grating furnace” that was developed, manufactured and installed by Bunge Fertilizantes S.A.	Ok	Ok
8.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	No.	Ok	Ok
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR	No specific training required for this project.	Ok	Ok
8.3 Duration of the Project/ Crediting Period *It is assessed whether the temporal boundaries of the project are clearly defined.*					
8.3.1 Are the project’s starting date and operational lifetime clearly defined and reasonable?	PDD	DR	Section C.1.1 – starting date 20/09/2003. Section C.1.2 – lifetime 21 years.	Ok	Ok
8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	Renewable crediting period: first period 7 years.	Ok	Ok
8.3.3 Does the project’s operational lifetime exceed the crediting period	PDD	DR	No.	Ok	Ok

Table 9 Additional requirements for SSC project activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
SSC projects use the SSC PDD and simplified baseline and monitoring methodologies as detailed in Appendix B (to the Modalities and Procedures for Small scale CDM projects, Annex II to Decision 21/CP.8) Indicative simplified baseline and monitoring methodologies for selected small scale CDM project activity categories *Note this Appendix is regularly updated and the most recent should be obtained from the CDM website* *SSC projects havemuch in common woth normal CDM project activites, but there are some exceptions which are tested in the section below. Where these questions contradict questions elsewhere in the checklist, these questions shall prevail.* *Please note the special requirements relating to:* *- Eligibility: Renewable energy project activities with a maximum.... see para 6 c of Decision 17 CP7 and the descriptions for each methodology in Appendix B* *- Debundling: As detailed in Appendix C of Annex II to Decision 21/CP.8 (first produced as Annex 7 to EB7)* *- Use of SSC Methodologies*					
9.1 Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	PDD	DR	Yes, renewable energy for the user with 11,63 MW capacity.	Ok	Ok
9.2 The project conforms to one of the categories listed in Appendix B to Annex II to Decision 21/CP8	PDD	DR	Yes, IC – Thermal energy for the user.	Ok	Ok
9.3 The small scale project activity is not a debundled component of a larger project activity?	PDD	DR	No. Verify in field visit. Verified that the project is not a debundled component of a larger activity.	Verify	Ok
9.4 PDD has been prepared in accordance with appendix A of Annex II to Decision 21/CP8	PDD	DR	They use the current version.	Ok	Ok
9.5 The project uses a simplified	PDD	DR	They use the Attachment A to Appendix B.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
baseline and monitoring methodology specified in Appendix B. If not, they may propose changes to the meths or a new SSC project category					
9.6 Are the emission reductions determined in accordance with the methodology described	PDD	DR	Yes.	Ok	Ok
9.7 Is there any bundling of SSC activities into one PDD? If so, does the monitoring plan consider sampling of activities? Refer to para 19 of Annex II. Also, note bundling provisions in SSC Briefing Note and SSC meths I C / I D and III D and Para 22e of Appendix B	PDD	DR	No.	Ok	Ok
9.8 Is EIA required by host party? If not, none is required irrespective of SHC. If yes, has one been performed consistent with local requirements?	PDD	DR	Verify environmental licence and check if state environmental agency requires an EIA. The environmental agency don't require an EIA, the project attend the licence and are requiring a new licence to include the furnace change. Licence #15-0008-7, issued on 28/07/1988 by CETESB. Letter # 1580/2004/CMg-FR, issued on 27/12/2004 by CETESB: renovation of the operation licence, process # 27/00838/04.	Verify	Ok
9.9 The project results in emission reductions that area additional in accordance with the following	PDD	DR	Yes. To be confirmed by local assessor. Verified that the emissions are reduced below in the	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
requirements: (para 26) The project is additional if emissions are reduced below those in the absence of the project (Para 27) Simplified baseline can be used; if not, baseline proposed shall cover all gases, sectors and sources listed in Annex A to the KP Para 28) One or more barriers as detailed in attachment A to Appendix B to Annex II will be used to demonstrate that the project would not proceed without the CDM			absence of the project. The project used simplified baseline. The barriers detailed in attachment A to Appendix B are described in the PDD.		
9.10 Leakage is calculated according to the provisions of the SSC methodologies in Appendix B (http://cdm.unfccc.int/Projects/pac/sslistmeth.pdf)	PDD	DR	Leakage is not applicable.	Ok	Ok
9.11 The project boundary shall be constructed in accordance with the requirements of the SSC meths in Appendix B	PDD	DR	The project boundary encompasses the physical and geographical site.	Verify	Ok
9.12 The Monitoring plan shall be consistent with the requirements of the SSC methodology in Appendix B and shall provide for the collection and archiving of data needed to determine project emissions,	PDD	DR	Biomass consumption shall be measured in m³. Is there a conversion factor for mst (metro estéreo)? How to obtain the volume in m³ from field inspections of trucks? Section D.5 of the PDD was revised to include a Monitoring procedure for biomass where all about	NIR 5	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
baseline emissions and leakage.			biomass consumption, conversion factor and inspections of trucks was clarified. NIR 5 has been closed out.		
9.13 The monitoring plan shall present good monitoring practice appropriate to the circumstances of the project activity (para 33)	PDD	DR	Verify procedures. The monitoring plan was included in the PDD.	Verify	Ok
9.14 If project activities are bundled, separate monitoring plan shall be prepared for each of the activities or an overall plan reflecting good monitoring practice will be prepared, consistent with the above requirements	PDD	DR	The project is not bundled.	Ok	Ok

Table 10 Additional requirements for AR projects – N/A

Table 11 Additional requirements for SSC AR projects – N/A

Table 12 Additional information to be verified by local assessors / site visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Key assumptions and data presented in the PDD must be verified, usually by local assessors or during a site visit. Where the baseline is constructed from historic emissions data, a site visit by an Assessor or Lead Assessor will be necessary; where the baseline is constructed from an economically attractive course of action, a local assessor may be sufficient. Where the baseline uses 48c (measure of best practice) any combination of Assessor / Lead Assessor / Local Assessor and Expert may be required. *During the line by line review of the PDD, identify all statement / facts / assumptions / variables etc that need to be verified. List them below and then ensure that*					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
the team verifies the data and provides references / supporting documentation where necessary. *The list may be quite long therefore avoid repetition.*					
Verify project installations like described in the PDD.	Site visit	Visit	It was verified the project installations.	Ok	Ok
Verify documents that prove the start date of the project (contract between Bunge and Ecoinvest, dated of March 2003; documents about furnace installation, registers of receiving the wood since the date of the beginning of the project).	Site visit	DR	Verified the fax dated of 28/03/2003 about carbon credit opportunity. Developing project plan FP-04-01, 20/05/03. Invoices of receiving the wood in July/2003 for tests.	Ok	Ok
Verify LPG consumption before the project implementation (verify evidences that the furnaces used LPG, verify registers of the gas consumption and invoices from gas company).	Site visit	DR/I	Verified invoices of the gas company: #5626, 31/10/2003; #5128, 01/11/2003. It was verified the gas storage before the project and the Bunge consumption worksheet, that shows the end of gas in November/2003 and the start of wood in August/2003.	Ok	Ok
Verify agreement signed between Bunge and Ecoinvest (September, 2004).	Site visit	DR	It was verified the contract between Bunge and Ecoinvest.	Ok	Ok
Verify generation capacity of the furnaces (see equipment specification).	Site visit	DR	Installed capacity of the 2 furnaces is 10 Gcal/h.	Ok	Ok
Verify biomass (eucalyptus) storage area and records.	Site visit	Visit	It was verified the storage area, the project only use eucalyptus as biomass and there are no other process that use biomass “eucalyptus” in the plant.	Ok	Ok
Investment barrier mention the cost involved.	PDD Site visit	DR	This cost represents or not a barrier, provide more information. The PDD was revised. NIR 2 has been closed out.	NIR 2	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Technological barrier.	PDD	DR	Provide more information about "the biomass furnaces are more laborious than LPG furnaces". The PDD was revised. NIR 3 has been closed out.	NIR 3	Ok
Verify documents that prove "employing and training new workers".	Site visit	DR	It was verified "Requisição de Funcionário #RF-00583/2004, issued on 04/08/2004 by Bunge. The document mention that 8 employee was contracted to work in this project.	Ok	Ok
Verify the payment of forest reposition tax (starts in 2003). A tax needs to be proporcional of the consumed volume.	Site visit	DR	It was verified the payment of the reposition tax in 2003, 2004 and 2005. The first payment was in 30/07/2003, 2 months before the project starts.	Ok	Ok
Verify evidence of environmental compliance of the wood suppliers (if applicable). "The biomass sources used by the project activity are deemed as renewable because they come from eucalyptus energetic forests that has sustainable environmental management"?	Site visit	DR	Verified one contract between Bunge and Imrá Agro Florestal Ltda (wood supplier), contract GUA-003/2004, issued on 01/02/2004. Verified the Imrá record in "IBAMA" and the payment of the environmental inspection tax.	Ok	Ok
Verify receipts of biomass (invoices, how it is registered, m3 or mst, conversion factor?).	Site visit	DR	Verified the biomass invoices issued on September/2003 (when the project starts).	Ok	Ok
Verify procedures and local inspection of trucks that delivers biomass to the plant. (how the load of the trucks is measured? in weight, m³ or mst?). If it will be in weight, to verify information and procedures, calibration etc, and justification of the density adopted for	Site visit	DR/I	The biomass delivery occurs in mst and eventually in weight. Verified the worksheet that controls the biomass delivery and the calibration certificate and the calibration plan "FP-11-20, V.06/09/02; IT-11-39, 07/07/03". Calibration certificate TB1 #681794, 04/08/05.	Provide information about the density adopted for calculation of the wood	Ok Section D.5 of the PDD was revised to include the Monitoring procedure for

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
calculation of the wood volume.				volume.	Biomass.
Verify environmental licence and Cetesb requirements for the project; Have equipment to control atmospheric emissions as described in the PDD? The ash is used in the process? Had some restriction to the use of the LPG when the decision for the use of the biomass was taken?	Site vist	DR	The environmental agency don't require an EIA, the project attend the licence and are requiring a new licence to include the furnace change. Licence #15-0008-7, issued on 28/07/1988 by CETESB. Letter # 1580/2004/CMg-FR, issued on 27/12/2004 by CETESB: renovation of the operation licence, process # 27/00838/04. Verified that the plant have equipments to control atmospheric emissions and once a year collect a sample to analyse, verified the analysis in 19/08/2003 and 12/08/2004. The ash generated is used to enrich the fertilizers produced.	Ok	Ok
To verify the certificates of qualification of the furnaces operators.	Site visit	DR	There is no legal requirement to operate furnaces.	Ok	Ok
Verify ISO 9000 certificate.	Site visit	DR	ISSO 9001:2000 issued on 2003-08-28, valid until 2006-08-27, registration number BR-SQ-3057 by Fundação Vanzolini. Scope: Production, commercialization and manufacturing of simple and complex NPK fertilizers in Guará Industrial Unit.	Ok	Ok

References consulted during Ground Truthing and brief summary of content / significance [please try to obtain a hard copy where ever possible]:

Ref no.	Title (full bibliographic reference if possible)	Brief note on content / significance	Hard copy (Y/n)
1	Fax Transmission, 28/03/2003	Discussion about carbon credit opportunity – Bunge.	Y
2	Plano de Projeto e Desenvolvimento, FP-04-01, 20/05/03	Developing project plan to substitute LPG to biomass (eucalypto wood).	Y
3	Certificate ISO 9001:2000 number SQ-3057, 28/08/2003	Scope: Production, commercialization and manufacturing of simple and complex NPK fertilizers in Guará Industrial Unit.	Y
4	Procedimento de Operação da Fornalha IT-9G-12, 04/08/03	Procedure to operate the furnaces.	Y
5	Método de verificação/calibração das balanças rodoviária: expedição e a granel IT-11-39, 07/07/03	Procedure for the calibration of the scales.	Y
6	Programa anual de verificação e calibração FP-11-20, 06/09/02	Calibration plan f the scales.	Y
7	Gas invoice number 5626 issued on 31/10/2003 and 5128 issued on 01/11/2003	Gas invoice.	Y
8	Biomass invoice number 5012 issued on 29/07/03 and 5008, 5010 issued on 28/07/03	Biomass (eucalypto wood) in m3 for test.	Y
9	Biomass invoice number 5421 and 5420 issued on 30/09/03	Biomass in m3, to start the project.	Y

10	Biomass invoice number 1521 issued on 06/09/04 and 1537 issued on 10/10/04	Biomass delivers in ton.	Y
11	Recebimento de lenha number 813 issued on 11/10/05 and 820 issued on 18/10/05	Deliver control of the biomass.	Y
12	Worksheet deliver biomass control, 27/10/2005	Monthly worksheet that control the biomass deliver.	Y
13	Contract GUA-003/2004	Contract between Bunge and Imrá Agro Florestal Ltda (biomass supplier)	Y
14	IBAMA record and environmental tax, 30/09/2003	Supplier record in IBAMA and the payment of environmental tax.	Y
15	Operational licence Number 15-0008-7 issued on 28/06/1988 by CETESB	Operational licence.	Y
16	Renewable operational licence number 1580/2004/CMg-FR by CETESB	Request of renewal of the operation licence.	Y
17	Forest reposition tax 2003, 2004 and 2005	Payment of the forest reposition tax.	Y
18	Emissions analysis, 19/08/03 and 12/08/04	Emission analysis of the furnace.	Y

Individuals interviewed during Validation and Ground Truthing [name, position and contact details, plus a brief summary of points discussed

Date met	Name	Position	Contact details	Brief note on subject of interview
07/11/2005	Joaquim Leite Severo	Head of sulphuric acid department	Bunge – joaquim.severo@bunge.com	Project responsible, discussion about all process described in the PDD.
07/11/2005	Wagner Chuqui	Manager	Bunge – wagner.chuqui@bunge.com	Proposal, contract and validation process.
07/11/2005	Melissa Hirschheimer	Consultant	Ecoinvest – Melissa@ecoinvestcarbon.com	PDD developer: PDD, monitoring plan, baseline.
07/11/2005	Rodrigo Leme	Consultant	Ecoinvest – Rodrigo.leme@ecoinvestcarbon.com	PDD developer: PDD, monitoring plan, baseline.
07/11/2005	Adalberto de Luca	Idustrial unit	Bunge	Technical issues and operational issues.
07/11/2005	Devair Júnior	Delivering and Invoicing responsible	Bunge	Issues relates to delivery biomass.

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ANNEX 5 - FINDINGS OVERVIEW

FINDINGS FROM VALIDATION OF BUNGE GUARÁ BIOMASS PROJECT

Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.

Description of table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.

Please note that this is an open list and more findings may be added as validation progresses.

Date:01/11/2005 Raised by:Fabian/Aurea

No.	Type	Issue	Ref
1	CAR	No letter of approval from host country (Brazil).	1.2
Date: 16 November 2005 [Comments] The Brazilian letter of approval for CDM projects is obtained after the validation of the project activities by the Operational Designed Entity.			
Date: [Acceptance and close out]			

Date:01/11/2005 Raised by:Fabian/Aurea

No.	Type	Issue	Ref
2	NIR	Investment barrier mention the cost involved. This cost represents or not a barrier, provide more information.	Table 12
Date: 16 November 2005 [Comments] The PDD was revised. Please refer to section B.3.			
Date:18/11/2005 [Acceptance and close out] The PDD was revised and the investment barrier was updated with more information. NIR 2 has been closed out.			

Date:01/11/2005 Raised by:Fabian/Aurea

No.	Type	Issue	Ref
3	NIR	In the technological barrier provide more information about why “the biomass furnaces are more laborious than LPG furnaces”.	Table 12
Date: 16 November 2005 [Comments] The PDD was revised. Please refer to section B.3.			
Date:18/11/2005			

[Acceptance and close out] The PDD was revised and the technological barrier was updated. NIR 3 has been closed out.

Date:01/11/2005 Raised by:Fabian/Aurea

No.	Type	Issue	Ref
4	NIR	What are the references/source of data about eucalyptus wood density (D=0,5t/m³) and LHV (the lower heating value of the biomass) used to calculate LPG (sse PDD, page 17)?	1.11
Date: 16 November 2005 [Comments] The PDD was revised. Please refer to sections D.5 and E.1.2.4.			
Date: 28/11/2005 [Acceptance and close out] The PDD was revised to clarify the references and source of data about eucalyptus wood density and lower heating value of the biomass used to calculate the LPG. NIR 4 has been closed out.			

Date:01/11/2005 Raised by:Fabian/Aurea

No.	Type	Issue	Ref
5	NIR	Biomass consumption shall be measured in m³ (PDD, section D.3). Is there a conversion factor for mst (metro estéreo)? How to obtain the volume in m³ from field inspections of trucks?	9.12
Date: 16 November 2005 [Comments] The PDD was revised. Please refer to sections D.5 and E.1.2.4.			
Date: 28/11/2005 [Acceptance and close out] Section D.5 of the PDD was revised to include a Monitoring procedure for biomass where all about biomass consumption, conversion factor and inspections of trucks was clarified. NIR 5 has been closed out.			

Observations:

Page 6, PDD " The biomass sources used by the project activity are deemed as renewable because they come from eucalyptus energetic forests that has sustainable environmental management"...

The term "environmental sustainable management" would not have to be used, just if Bunge possess evidences or has some type of control on the forest handling adopted by its suppliers (for example, demands the fulfilment of a code of practical, verifies the performance by means of audit of second part or demands any other certificate that the suppliers adopt practical of sustainable handling. In case that not, the text would have to be rewritten to demonstrate more clearly what it is guaranteed from the suppliers of wood to the project.

Date: 16 November 2005 [Comments] The PDD was revised. Please refer to section A.4.3.
Date:18/11/2005 [Acceptance and close out] This point was clarified in the revised PDD.

Annex 6 Local assessment checklist

Bunge Guará biomass project (CDM.VAL0236)

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document. It serves as a "reality check" on the project. It is to be completed by SGS Brazil

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Verify project installations like described in the PDD.	It was verified the project installations like described in the PDD.	Site visit/visit	Ok

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Verify documents that prove the start date of the project (contract between Bunge and Ecoinvest, dated of March 2003; documents about furnace installation, registers of receiving the wood since the date of the beginning of the project).	Verified the fax dated of 28/03/2003 about carbon credit opportunity. Developing project plan FP-04-01, 20/05/03. Invoices of receiving the wood in July/2003 for tests.	Site visit/DR	Ok
Verify LPG consumption before the project implementation (verify evidences that the furnaces used LPG, verify registers of the gas consumption and invoices from gas company).	Verified invoices of the gas company: #5626, 31/10/2003; #5128, 01/11/2003. It was verified the gas storage before the project and the Bunge consumption worksheet, that shows the end of gas in November/2003 and the start of wood in August/2003.	Site visit/DR	Ok
Verify agreement signed between Bunge and Ecoinvest (September, 2004).	It was verified the contract between Bunge and Ecoinvest.	Site visit/DR	Ok
Verify generation capacity of the furnaces (see equipment specification).	Installed capacity of the 2 furnaces is 10 Gcal/h.	Site visit/visit	Ok
Verify biomass (eucalyptus) storage area and records.	It was verified the storage area, the project only use eucalyptus as biomass and there are no other process that use biomass “eucalyptus” in the plant.	Site visit/DR	Ok

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Investment barrier mention the cost involved.	This cost represents or not a barrier, provide more information. The PDD was revised to give more detail about investment barrier. NIR 02 has been closed out.	PDD / DR	Ok
Technological barrier.	Provide more information about “the biomass furnaces are more laborious than LPG furnaces”. The PDD was revised to gibe more detail about technological barrier. NIR 03 has been closed out.	PDD / DR	Ok
Verify documents that prove “employing and training new workers”.	It was verified “Requisição de Funcionário #RF-00583/2004, issued on 04/08/2004 by Bunge. The document mention that 8 employee was contracted to work in this project.	Site visit/DR	Ok
Verify the payment of forest reposition tax (starts in 2003). A tax needs to be proporcional of the consumed volume.	It was verified the payment of the reposition tax in 2003, 2004 and 2005. The first payment was in 30/07/2003, 2 months before the project starts.	Site visit/DR	Ok
Verify evidence of environmental compliance of the wood suppliers (if applicable). "The biomass sources used by the project activity are deemed as renewable because they come from eucalyptus energetic forests that has sustainable environmental management"?	Verified one contract between Bunge and Imrá Agro Florestal Ltda (wood supplier), contract GUA-003/2004, issued on 01/02/2004. Verified the Imrá record in “IBAMA” and the payment of the environmental inspection tax.	Site visit/DR	Ok
Verify receipts of biomass	Verified the biomass invoices issued on	Site visit/DR	Ok

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
(invoices, how it is registered, m3 or mst, conversion factor?).	September/2003 (when the project starts).		
Verify procedures and local inspection of trucks that delivers biomass to the plant. (how the load of the trucks is measured? in weight, m³ or mst?). If it will be in weight, to verify information and procedures, calibration etc, and justification of the density adopted for calculation of the wood volume.	The biomass delivery occurs in mst and eventually in weight. Verified the worksheet that controls the biomass delivery and the calibration certificate and the calibration plan "FP-11-20, V.06/09/02; IT-11-39, 07/07/03". Calibration certificate TB1 #681794, 04/08/05.	Site visit/DR	Provide information about the density adopted for calculation of the wood volume. Ok Section D.5 of the PDD was revised to include the Monitoring Procedure for Biomass.
Verify environmental licence and Cetesb requirements for the project; Have equipment to control atmospheric emissions as described in the PDD? The ash is used in the process? Had some restriction to the use of the LPG when the decision for the use of the biomass was taken?	The environmental agency don't require an EIA, the project attend the licence and are requiring a new licence to include the furnace change. Licence #15-0008-7, issued on 28/07/1988 by CETESB. Letter # 1580/2004/CMg-FR, issued on 27/12/2004 by CETESB: renovation of the operation licence, process # 27/00838/04. Verified that the plant have equipments to control atmospheric emissions and once a year collect a sample to analyse, verified the analysis in 19/08/2003 and 12/08/2004. The ash generated is used to enrich the fertilizers produced.	Site visit/DR	Ok

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
To verify the certificates of qualification of the furnaces operators.	There is no legal requirement to operate furnaces.	Site visit/DR	Ok
Verify ISO 9000 certificate.	ISSO 9001:2000 issued on 2003-08-28, valid until 2006-08-27, registration number BR-SQ-3057 by Fundação Vanzolini. Scope: Production, commercialization and manufacturing of simple and complex NPK fertilizers in Guará Industrial Unit.	Site visit/DR	Ok

CDM Project Activity Registration and Validation Report Form

(By submitting this form, designated operational entity confirms that the proposed CDM project activity meets all validation and registration requirements and thereby requests its registration)

Section 1: Request for registration	
Name of the designated operational entity (DOE) submitting this form	SGS United Kingdom Ltd.
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Bunge Guará biomass project.
Project participants (Name(s))	Bunge Fertilizantes S.A.
Sector in which project activity falls	1- Energy industries (renewable / non-renewable sources)
Is the proposed project activity a small-scale activity?	**Yes** / No

Section 2: Validation report

List of documents to be attached to this validation report (please check mark)*:*

☒ The CDM-PDD of the project activity

☒ An explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations;

☐ The written approval of voluntary participation from the designated national authority of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development:

- ☐ (Attach a list of all Parties involved and attach the approval (in alphabetical order)) N/A

Host Party:

- ☒ Brazil

☒ Other documents, including any validation protocol used in the validation

- ☒ comprehensive list of documents attached clearly referenced
- ☒ List of persons interviewed by DOE validation team during the validation process
- ☒ Any other documents. Please refer to list of documents attached.

☒ Information on when and how the above validation report is made publicly available.

☐ Banking information on the payment of the non-reimbursable registration fee

☐ A statement signed by all project participants stipulating the modalities of communicating with the Executive Board and the secretariat in particular with regard to instructions regarding allocations of CERs at issuance allocations of CERs at issuance.

Executive Summary and Introduction, including

- **Description of the proposed CDM project activity**
- **Scope of validation process (include all documentation that has been reviewed and name persons that have been interviewed as part of the validation, as applicable)**
- **DOE Validation team (list of all persons involved in the validation, describing functions assumed in the validation)**

Description of the proposed CDM project activity

Bunge corporation is in Brazil since 1905. The company is the world's largest oilseed processor and largest seller of bottled oils to consumer. Bunge is the leader in South America in the fertilizer and nutritional ingredients for animal food industry.

Bunge Fertilizantes S.A. is the owner of Guará plant that produces simple and compound fertilizer for agriculture. The plant started operation in 1981.

The project consist in the retrofitting of 2 furnaces that used to burn LPG by 2 fixed grating furnaces that burn renewable biomass (Eucalyptus firewood from renewable energetic forests), for granulation and drying fertilizers process, at Guará plant, located in the state of São Paulo, Brazil. The total installed capacity of the 2 fixed grating furnaces is 11.63 MW.

Guará project applies the fixed grating technology; the biomass fixed grating furnaces were developed, manufactured and installed by Bunge.

Total amount of emission reductions for the first crediting period is 98,707 tCO2e

Baseline Scenario:
The use of LPG in the operation of the two furnaces.

With-project scenario:
The use of renewable wood in the two furnaces, a fuel with lower carbon emission factor than the fossil fuel (LPG), previously used (LPG).

Leakage:
Once energy generating equipment was dismantled and converted to biomass grating furnace, leakage was not considered.

Environmental and social impacts:

It was verified that the project contribute to the use of sustainable renewable energy sources instead of non renewable ones.

This cleaner source of thermal energy has an important contribution to environmental sustainability by reducing carbon dioxide emissions, by avoiding the combustion of fossil fuel LPG. Biomass used in the project also emits CO2, however its net emissions are considered zero, once it consumes CO2 during photosynthesis.

Guará Project takes a advantage of the ash generated by the biomass combustion, utilizing it to enrich the fertilizers produced and reducing waste generation. The project includes pollution control systems for atmospheric emissions and complies with Brazilian environmental regulations. The environmental licenses were verified during the validation process (CETESB/SP, LI no. 15-0008-07, issued on 27h July, 1988 and a renovation letter no. 1580/2004/CMg-FR, issued on 27th December, 2004).

Regarding the social impacts, the plant has more than 240 employees, including the 8 workers hired specifically for the project activity.

Scope

The scope of the validation is the independent and objective review of the project design document, the baseline study and monitoring plan and other relevant documents of the Bunge Guará biomass project. The information in these documents is reviewed against the criteria defined in the Marrakech Accords (Decision 17) and the Kyoto Protocol (Article 12) and subsequent guidance from the CDM Executive Board.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

Overview of documentation that has been reviewed and names of persons that have been interviewed as part of the validation

Please refer to Annex 3.

DOE Validation team

Name	Role
Áurea Nardelli	Lead assessor
Fabian Gonçalves	Local assessor
John Miles	Technical reviewer

Description of methodology for carrying out validation

- **Review of CDM-PDD and additional documentation attached to it**
- **Assessment against CDM requirements (e.g. by use of a validation protocol)**
- **Report of findings by the DOE, e.g. by use of type of findings (e.g. corrective action requests, clarifications or observations). Please explain the way findings are "labelled" during validation.**
- **Include statements or assessments in the section "Conclusions, final comments and validation opinion" below.**

Review of CDM-PDD and additional documentation

The validation was performed primarily as a document review of the publicly available project documents (see Annex 2 for the list of documents). The assessment was carried out by trained assessors using a customised validation protocol.

A site visit was required to verify assumptions in the baseline. Additional information was required to complete the validation, which was obtained through telephone, e-mail and face-to-face interviews with the project developers and their consultants. These were performed by local assessors from the SGS do Brazil. The results of the site visit carried out on 7th November, 2005 are summarized in Annex 6 to this report.

Assessment against CDM requirements

In order to ensure transparency, a validation protocol was customised for the project. The protocol shows requirements, means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	*Means of verification (MoV)*	*Comment*	*Draft and/or Final Conclusion*
The various requirements are linked to checklist questions the project should meet.	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **New Information Request (NIR)** is used when the validation team has identified a need for further clarification.*

The completed validation protocol for this project is attached as Annex 4 to this report.

Report of findings and use of type of findings.

As an outcome of the validation process, the team can raise different types of findings.

Where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises that requires the Project Developer to do something (for example correct something in the PDD) the Assessor shall raise a **Corrective Action Request (CAR).**

Observations may also be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex 5). In this form, the Project Developer is given the opportunity to “close” outstanding CARs and respond to NIRs and Observations.

For this project, the *Corrective Action Requests (CAR)* and *New Information Request (NIR)* were closed out through communication between validation team and Bunge Fertilizantes staff and its consultants. Changes to the project design were necessary to clarify the issues raised.

Explanation by the submitting designated operational entity of how it has taken due account of comments on validation requirements received, in accordance with the CDM modalities and procedures, from Parties, stakeholders and UNFCCC accredited non-governmental organizations;

- **Description of how and when the PDD was made publicly available**
- **Description of how comments were received and made publicly available**
- **Explanation of how due account has been taken of comments received**
- **Compilation of all comments received (Identify the submitter)**

In accordance with the CDM modalities and procedures, the project design document of this proposed CDM project activity has been made publicly available and comments have been invited from Parties, stakeholders and UNFCCC accredited non-governmental organizations. This process is described in Annex 1 to this report, which is available as a separate document.

Conclusions, final comments and validation opinion

- **Provide conclusions on each requirement under paragraph 37 of the CDM modalities and procedures, describing how these requirements have been meet. This shall include assessments and findings (e.g. corrective action requests, clarifications or observations) in relation to each requirement, including a confirmation that all issues raised have been addressed to the satisfaction of the DOE.**
- **Final comments and validation opinion**

Participation requirements

Host Party: Brazil is listed as the host Party. Brazil has ratified the Kyoto Protocol on 23rd August 2002 (http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf).

At time of the draft validation, no Letter of Approval from the host country had been provided. Consequently CAR 1 was raised. The Letter of Approval will be signed when the DNA of Brazil has received and analysed the validation report.

CAR 1 remains outstanding: Hence, we cannot at this time request the registration of the "Project Activity" as CDM project activity. Prior to the submission of this validation report to the CDM Executive Board, "DOE" will have to receive the written approval of the DNA of Brazil, including confirmation that the project assists in achieving sustainable development.

Eligibility as a small scale project activity

Guará Project is a small scale project activity and falls under the category I.C - "Thermal energy for the user", that comprises renewable energy technologies that supply individual households or users with thermal energy that displaces fossil fuels or non-renewable sources of biomass.

To qualify as a small-scale project as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM, the project activity must meet the following criteria:

(i) Renewable energy project activities with a maximum output capacity equivalent of up to 15 megawatts (or an appropriate equivalent);
(ii) Energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 15 gigawatt/hours per year;
(iii) Other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnes of carbon dioxide equivalent annually;

The total installed capacity of the 2 fixed grating furnaces is 11,63 MW and is therefore fully eligible as a small-scale project (lower than 15 MW).

Project participant does not have any other CDM project activity in the same site and category. The project boundary is limited to the physical, geographical site of the renewable energy generation. The UNFCCC website does not show another registered project with the same characteristics. Therefore, this project is not considered a debundled component of a larger activity.

Baseline and monitoring methodology

The methodology applied to this Small Scale Project activity is *Type 1: Renewable energy projects. Category , I.C.: Thermal energy for the user.*
For renewable energy technologies that displace technologies using fossil fuels, the simplified baseline is the fuel consumption of the technologies that would have been used in the absence of the

project activity times an emission coefficient for the fossil fuel displaced.

The choice of the applicable baseline calculation for the project category is justified on the PDD, section B2. The project complies with the applicability conditions.

Additionality

According to simplified methodologies, project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one pre-defined barrier.

The additionality of the project activity is assessed and demonstrated through Attachment A to Appendix B of the Simplified Modalities and Procedures for small-scale CDM project activities.

As described in the PDD and verified during the validation, the project faced investment barrier (installation of new equipment and investment), technological barrier (biomass furnaces are more laborious than LPG furnaces and required hiring and training of new workers) and barrier due to prevailing practice (the operation with LPG was well established in Guará plant and the change to biomass incurred in higher maintenance and operational cost). In addition, other barrier related with secure of biomass (form forests) supplying was identified.
Despite the barriers associated with the project, Bunge Fertilizantes S.A. decided to implement it. The fact that the project would be able to benefit from carbon credits was one of the key factors in the decision making. Documented evidences that CDM was taken in account in the decision making was verified during the validation.

NIR 2 was raised asking for more information related to the investment barrier.
The PDD was revised and the investment barrier was updated with more details. NIR 2 has been closed out.

NIR 3 was raised asking for more information about why the biomass furnaces are more laborious than LPG furnaces.
The PDD was revised including more details. NIR 3 has been closed out.

Monitoring plan

For renewable energy technologies that displace fossil fuels, the consumption of biomass is the only parameter that needs to be monitored.

Monitoring variable is the consumption of biomass, in volume or mass units, that is controlled by the plant through purchasing receipts and local inspection of trucks according to the Monitoring Procedure for Biomass (Section D.5 of the PDD).

References and source of data about eucalyptus wood density and LHV used to calculate LPG were not presented in the PDD. NIR 4 was raised.

The PDD was revised to clarify the references and source of data about eucalyptus wood density and lower heating value of the biomass used to calculate the LPG. NIR 4 has been closed out.

According the PDD the biomass consumption shall be measured in cubic meters. The PDD did not present a conversion factor for stereo meter and how to obtain the volume in cubic meters from field inspections of trucks. NIR 5 was raised.

The section D.5 of the PDD was revised to include a Monitoring Procedure for Biomass that explains about biomass consumption, conversion factor and inspections of trucks. NIR 5 has been closed out.

The validation team concluded that the monitoring plan present good monitoring practice appropriate to the circumstances of the project activity.

Environmental Impacts

The project complies with the environmental regulations of the country. The plant has the required environmental license issued by the State environmental agency, CETESB. The documents were verified during the validation assessment. The scope of the license includes the furnaces.
It was verified that the project activity presents no major environmental impacts and does not request an specific Environmental Impact Assessment.

As described in the PDD and verified during the site visit, the ash generated by combustion of biomass is used to enrich the fertilizers produced and the flue gases, before going to the atmosphere, are directed to cyclones and send to the gas washers for eliminating particulate matter and other undesired emissions.

For biomass projects that consumes less than 100,000 m3 of wood yearly, which is the case of Guará Project, IBAMA - Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources) required the payment of forestry reposition
tax. Evidences of payments were verified during the site visit.

Comments by local stakeholders

Local stakeholders have been invited by letters to comment on the Bunge Guará biomass project.

The invitation was sent to specific stakeholders, considered representative of
the general public, as required by Resolution 1 of the Brazilian DNA. The following stakeholders wee invited to comment on the project:

- Guará City Hall
- Guará City Council
- Guará Environmental Department
- CETESB – State Environmental Agency
- São Paulo State Public Attorney
- FBOMS – National NGOs representative
- Associação de Recuperação Florestal Vale do Rio Grande – Local NGO
- Associação Comercial Empresarial de Guará – Local NGO

Copies of the letters were verified during validation assessment.
No comment from local stakeholders was received.

Other requirements

The PDD has been prepared in accordance with appendix A of Annex II to Decision 21/CP8 . The project applies correctly the PDD template. No changes were observed.

The project design engineering reflects current good practices. The “Fixed grating furnace” was developed, manufactured and installed by Bunge Fertilizantes S.A.

Project’s starting date and operational lifetime are clearly defined. The project’s operational lifetime does not exceed the crediting period

Final comments and validation opinion

Steps have been taken to close out 1 CAR and 4 NIRs. One finding (CAR 1) related to the LoA is still

outstanding, because Brazilian DNA only issues the letter after the conclusion of validation process (report and recommendations by the DOE).

The Validation Opinion is based on the current and emerging rules surrounding Article 12 of the Kyoto Protocol.

Hence, we cannot at this time request the registration of the ”Project Activity” as CDM project activity. Prior to the submission of this validation report to the CDM Executive Board, “DOE” will have to receive the written approval of the DNA of Brazil, including confirmation that the project assists in achieving sustainable development.

The DOE declares herewith that in undertaking the validation of this proposed CDM project activity it has no financial interest related to the proposed CDM project activity and that undertaking such a validation does not constitute a conflict of interest which is incompatible with the role of a DOE under the CDM.

By submitting this validation report, the DOE confirms that all validation requirements are met. Name of authorized officer signing for the DOE	Aurea Nardelli
Date and signature for the DOE	1rt December 2005

Section below to be filled by UNFCCC secretariat		
Date when the form is received at UNFCCC secretariat		
Date at which the registration fee has been received		
Date at which registration shall be deemed final		
Date of request for review, if applicable		
Date and number of registration	Date	Number