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	Det Norske Veritas Certification Ltd. (DNV)
Title of the proposed CDM project activity (Section A.2 of the attached CDM-PDD) submitted for registration	Biogas Support Program - Nepal (BSP-Nepal) Activity-1
Project participants (Name(s))	☑ Alternative Energy Promotion Centre, Nepal (AEPC) ☑ Household Maiya Gautam ☑ Household Suk Man Tamang ☑ The Community Development Carbon Fund (CDCF)
Sector in which project activity falls	Renewable Energy
Is the proposed project activity a small-scale activity?	Yes / ~~No~~ *(underline as applicable)*

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 (**Note: Included in Validation Report (DNV Report 2005-1164, rev. 01**));
- ☑ 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:
  - o Letter of Approval by the DNA of Nepal
  - o Letter of Approval by the DNA of the Netherlands
- ☑ Other documents, including any validation protocol used in the validation
  - o Validation Report (DNV Report 2005-1164, rev. 01), including a validation protocol and a list of persons interviewed by the validation team during the validation process
- ☑ 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

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)**

In the "Biogas Support Program - Nepal (BSP-Nepal) Activity 1" a total of 9 708 small biogas digesters have been installed from November 2003 to June 2004 in 57 of 75 districts of Nepal. The overall generation capacity of all plants is approximately 14.73 MW.

The project is a sub-project of the BSP-Nepal umbrella biogas program that aims to install a total of 200 000 small biogas digesters all over Nepal. This project is part of the fourth phase of the Nepali government's biogas program at the national level. Under the first three phases, a total of 111 395 biogas plants have been installed.

The biogas digesters will provide biogas for the thermal energy needs of households with at least 2 heads of cattle (cow or buffalo). Farming households living in villages in remote areas are the primary buyers of these biogas digesters. Biogas used for cooking will displace fire wood and kerosene and thereby reduce greenhouse gases.

The annual emission reductions of one biogas digester of max 4.99 tCO2e/year is claimed based on sample studies, which totals to ca 46 990 tCO2e emission reductions per year for all 9 708 biogas digesters.

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, the simplified modalities and procedures for small-scale CDM project activities and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology AMS-I.C. The validation team has, based on the recommendations in the Validation and Verification Manual, employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs.

The following documentation has been assessed:

- ☑ CDCF, Biogas Support Program - Nepal (BSP-Nepal) Activity-1, Versions September and November, 2005.
- ☑ CDCF, Contact details of all households, 13 November 2005.
- ☑ CDCF, plant level financial assessment, November 2005.
- ☑ CDCF, Social Consultations Related to Phase IV of the Nepal Biogas Support Program, May 2005.
- ☑ DNA of Nepal, Approval letter, 20 November 2005.
- ☑ DNA of Netherlands, Approval Letter, 10 November 2005.
- ☑ BSP Nepal, Sales Contract – household Agreement, 2005.
- ☑ BSP Nepal, Integrated Environmental Impact Assessment, 20 June 2002.
- ☑ BSP Nepal, Baseline calculations, November 2005.

- ☑ BSP Nepal, CDM-data-firewood analysis-rev1, November 2005.
- ☑ BSP Nepal, Stove Hours statistical analysis, November 2005.
- ☑ BSP Nepal, Size of biogas digesters, November 2005.
- ☑ BSP Nepal, Biogas Programme Phase IV (July 2003- June 2009) – implementation plan, September 2003.
- ☑ German Ministry for Economic Development and Cooperation, Declaration of ODA, 3 November 2005.
- ☑ Dutch Department for Environment and Water Affairs, Declaration of ODA, 10 November 2005.
- ☑ International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): Validation and Verification Manual. http://www.vvmanual.info
- ☑ Appendix B of the simplified modalities and procedures for small-scale CDM project activities: Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories. Version 06: 30 September 2005.

The following persons were interviewed:

- ☑ AEPC, Dr. Madan Kumar Basnyat, Executive Director.
- ☑ BSP Nepal, Mr Sundar Bajgain, Programme Manager.
- ☑ Winrock International, Nepal, Bikash Pandey, Director South Asia, Clean Energy Program, Country Representative.
- ☑ CDCF, Mrs Sushila Maharjan, Consultant.
- ☑ EcoSecurities B.V., Jan-Willem Marten, Project Manager
- ☑ Institute of Engineering, Tribhuvan University, Jagan Nath Shrestha, Professor and Director, Center for Energy Studies.

The DOE validation team consisted of the following persons:

Ms Mari Grooss Viddal	DNV Certification Oslo	Team Leader, GHG auditor
Mr Chandrash, Kumaraswamy	DNV Certification Bangalore	GHG auditor
Ms Susanne Haefeli	DNV Certification Oslo	GHG auditor
Mr Michael Lehmann	DNV Certification Oslo	Energy Sector Expert/ Technical reviewer

For further details, please refer to the "Introduction" and "References" Section of DNV's Validation Report (DNV Report 2005-1164, rev. 01).

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.**

The validation of the project consisted of the following three phases:

I) a desk review of the project design document

II follow-up interviews with project stakeholders

III the resolution of outstanding issues and the issuance of the final validation report and opinion

The PDD of September and November 2005 submitted by the Community Development Carbon Fund and additional background documents related to the project design and baseline were reviewed.

On 12, 13, 17 and 19 November 2005, DNV performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of AEPC, BSP-Nepal (the authorized Biogas company responsible for implementing the whole project), Winrock International, EcoSecurities, the Institute of Engineering at the Tribhuvan University and the CDCF were interviewed.

In order to ensure transparency, a validation protocol has been customized for the project, according to the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validation the identified criteria.

Findings established during the validation can either be seen as a non- fulfilment of validation criteria or where a risk to the fulfilment of project objectives is identified. Such findings are termed Corrective Action Requests (CAR). The term Clarification may be used where additional information is needed to fully clarify an issue.

The Corrective Action Request and request for Clarification raised by DNV were resolved through communications with the project participants. To guarantee the transparency of the validation process, the concerns raised by DNV and the response provided by the project participants are documented in Table 3 of the Validation Protocol in Appendix A to the Validation Report (DNV Report 2005-1164, rev. 01).

For further details, please refer to the "Methodology" Section of DNV's Validation Report (DNV Report 2005-1164, rev. 01) and the IETA/PCF Validation and Verification Manual (www.vvmanual.info).

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)**

The PDD from September 2005 was made publicly available on DNV's climate change website

(www.dnv.com/certification/climatechange) and Parties, stakeholders and NGOs were through the CDM website invited to provide comments during a 30 days period from 20 September to 19 October.

No comments were received.

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**

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Biogas Support Program - Nepal (BSP-Nepal) Activity 1" in Nepal. The validation was performed on the basis of UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol criteria for the CDM, the CDM rules and modalities as agreed in the Marrakech Accords, the simplified modalities and procedures for small-scale CDM project activities and relevant decisions by the CDM Executive Board.

The host Party is Nepal and the participating Annex I Party is the Netherlands. Both Parties fulfil the participation criteria and the Dutch and Nepalese DNAs have approved the project and authorized the project participants. The DNA of Nepal also confirmed the project's contribution to sustainable development.

The project comprises the installation of biogas digesters in 9 708 households in 57 out of 75 districts of Nepal. The generated biogas is used for cooking, displacing kerosene and non-renewable fuel wood. Being a renewable energy project activity with a total capacity of less than 15 MW which provides thermal energy for the user, the project is eligible as small-scale CDM project activity and can apply the simplified baseline and monitoring methodology AMS-I.C.

The baseline methodology AMS-I.C has been correctly applied and it has been demonstrated that the project faces technology and investment barriers. In accordance with AMS-I.C, the baseline scenario is the continued fuel wood and kerosene use for cooking. Appropriate emission reduction factors for digesters of different size and located in different areas have been determined based on the result of extensive surveys on the fuel wood and kerosene consumption of households prior and after the installation of digesters.

It is assumed that all reduced fuel wood consumption is non-renewable. In the absence of any guidance by the CDM Executive Board on how to define non-renewable sources of biomass, this is demonstrated based on a study (annexed to the PDD) that shows that the fuel wood consumption is much higher than the re-growth rate of the forest area in Nepal.

The monitoring plan provides for the monitoring of the main emission reduction indicators. Detailed responsibilities and authorities for project management, procedures for monitoring and reporting, and QA/QC procedures are described and allow for consistent subsequent verifications of real and measurable GHG emission reductions that give long-term benefits to the mitigation of climate change.

An analysis of the project's environmental impacts has been conducted and the project is not likely to create major adverse environmental impacts. Local stakeholder comments have been adequately consulted.

In summary, it is DNV's opinion that the "Biogas Support Program - Nepal (BSP-Nepal) Activity 1" in Nepal, as described in the project design document of 14 November 2005, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies AMS-I.C. Hence, DNV requests the registration of the "Biogas Support Program - Nepal (BSP-Nepal) Activity 1" as a CDM project activity.

For further details, please refer to DNV's Validation Report (DNV Report 2005-1164, rev. 01)).

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	Susanne Haefeli
Date and signature for the DOE	22 November 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