

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (VPA DD)

PUBLICATION DATE **29.06.2023**

VERSION **v.2.3**

RELATED SUPPORT

- [Programme of Activity requirements](#)

- [TEMPLATE GUIDE VPA Design Document](#)

This document contains the following sections

Section A – Description of project

Section B - Application of approved Gold Standard Methodology (ies) and/or demonstration of SDG Contributions

Section C – Duration and crediting period

Section D – Summary of Safeguarding Principles and Gender Sensitive Assessment

Section E – Summary of Local stakeholder consultation

Section F - Eligibility and inclusion criteria for VPAs inclusion

Appendix 1 – Safeguarding Principles Assessment (mandatory)

Appendix 2- Contact information of VPA Implementer (mandatory)

Appendix 3 – LUF Additional Information (VPA specific)

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KEY PROJECT INFORMATION

Type of VPA	☐ Real case VPA ☒ Regular VPA
Scale of VPA Note that a VPA can be of one scale. Please select applicable scale accordingly.	☐ Microscale ☒ Small scale ☐ Large scale
Title of corresponding real case VPA (if applicable)	N/A (PoA: Nepal Biogas Support Program-PoA)
GS ID of real case VPA (if applicable)	N/A (GS ID of PoA: 3110)
GS ID of VPA	7509
Title of VPA	Nepal Biogas Support Program – CPA 9: 17,304 digesters
Time of First Submission Date	N/A
Date of Design Certification	23/09/2019
Version number of the VPA-DD	03
Completion date of version	28/06/2024
Coordinating/managing entity	Alternative Energy Promotion Centre (AEPC)
VPA Implementer (s)	Alternative Energy Promotion Centre (AEPC)
Project Participants and any communities involved	atmosfair gGmbH;
Host Country (ies)	Nepal
GS ID and Title of applicable Design Certified VPA	GS ID 7509: Nepal Biogas Support Program – CPA 9: 17,304 digesters
GS ID and Title of applicable Performance Certified VPA	GS ID 7509: Nepal Biogas Support Program – CPA 9: 17,304 digesters

Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Other Requirements applied	N/A
Methodology (ies) applied and version number	AMS I.E. Switch from non-renewable biomass for thermal applications by the user, version 09
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
VPA Cycle:	☒ Regular ☐ Retroactive

Land-use & Forest and Agriculture - Key Project Information¹

Not applicable

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT (DEFINED IN B.6.)	ESTIMATED ANNUAL AVERAGE	UNITS OR PRODUCTS
13 Climate Action (mandatory)	Emission Reduction	56,329	GS CER
3 Good Health and Well Beings			
3.9.1 Mortality rate attributed to household and ambient air pollution	Average annual consumption of woody biomass per household in the pre-project devices during the project activity	0.54	Ton/HH/year

¹ Please refer to 0 for detailed information on LUF projects

3.9.1 Mortality rate attributed to household and ambient air pollution	Quantity of woody biomass that is substituted or displaced	69,302.52	Ton/year
3.9.1 Mortality rate attributed to household and ambient air pollution	Net calorific value of the non-renewable biomass that is substituted	0.0156	TJ/ton
3.9.1 Mortality rate attributed to household and ambient air pollution	Users' perception on reduction in indoor air pollution	100	% HH response
3.9.1 Mortality rate attributed to household and ambient air pollution	Users' perception on reduction in health problem	100	% HH response on eye infection, respiratory disease, Cough and Fire related injury
3.9.1 Mortality rate attributed to household and ambient air pollution	User's perception in Time saving for the cooking (reduce exposure to indoor air pollution)	100	% HH response for Men, Women and Children
3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	Users' perception on connection of toilet to biogas	100	% HH response
3.9.3 Mortality rate attributed to unintentional poisoning	Users perception in reduction of chemical fertilizers (use of Farmyard manure, Bio-slurry, Urea, DAP and Potash)	100	% response
7: Affordable and Clean Energy			
7.1.2 Proportion of population with primary reliance on clean fuels and technology	Users' perception on time saving due to project for firewood collection (For men, women and children)	100	% response

7.1.2 Proportion of population with primary reliance on clean fuels and technology	Number of people trained to promote Biogas plants	At least 20 mason for whole PoA	Number of human resource trained.
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SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

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Main objective of the Nepal Biogas Support Programme-PoA is to further develop and disseminate biogas digesters as a renewable energy solution in Nepal, while better addressing poverty, social inclusion and regional balance issues and at the same time ensuring sustainability of the sector. Under this, AEPC currently supports to implement up to 20,000 digesters for each CPA under this PoA, which assures to remain within the small scale threshold. Besides investment subsidy to user households, AEPC needs funding on program level to maintain its activities. Target group under the PoA/CPA are households with at least one head of cattle (generally cows or buffalos) who currently use non-renewable biomass (firewood) for cooking purpose. The baseline of the PoA considers only non-renewable biomass replaced through household biogas applications. Only households previously using non-renewable biomass are eligible to the PoA. Before this PoA, four CDM projects activities have been registered that cover digesters implemented between 1st of November 2003 and 21 June 2007.

The baseline scenario is continued use of non-renewable biomass (NRB) i.e. firewood for cooking. In addition to non-renewable firewood, the households also use small amounts amount of cow dung and agricultural waste for cooking. Fossil fuels like kerosene and LPG are hardly used. Only firewood consumption is considered for the baseline estimates. Thus, in the absence of the programme the beneficiaries would have continued the use of non-renewable biomass (firewood) leading to its associated GHG emissions. Hence, use of non-renewable biomass is considered as the baselines and emission reductions will be claimed only for the displacement of non-renewable fuelwood. The technology is environmentally sound. The programme may use accessories like Valve, Multilayer Pipes, Pressure meter, which has been procured from Thailand, China, and may also be procured from other countries.

This Component Project Activity (CPA) is part of the Nepal Biogas Support Program-Programme of Activity (PoA). This CPA includes 17,304 digesters which were implemented between 09/04/2016 and 12/07/2018. Table 1 provides an overview of the digesters according to their size and location.

Table 1: Digesters listed in this CPA.

Size/Region	Hill	Terai	Mountain or Remote Hill	Total
2 m ³	3	3	0	6
4 m ³	988	110	13	1111
6 m ³	7638	7713	567	15918
8 m ³	99	155	5	259
10 m ³	2	8	0	10

Total	8730	7989	585	17304
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A.1.1. Eligibility of the VPA under approved PoA

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The VPA is proposed for the crediting period renewal. The VPA was included in the PoA for Nepal Biogas Support Program-PoA since it meets all the criteria listed in the eligibility criteria for inclusion of a VPA in the PoA as given in registered PoA-DD as under.

Table 2 Eligibility for VPA inclusion as per PoA requirements

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION AND SUPPORTING EVIDENCE FOR INCLUSION
1	Geographical boundary	- All biogas digesters in the VPA#9 are located within the geographical boundaries of Nepal. - This is confirmed by the CME by ensuring that each individual installation is a) located at an address that lies within the geographical boundaries of Nepal as demonstrated by providing the address of all biogas digesters in the VPA database; and b) has GPS coordinates that are situated within the geographical boundaries of Nepal.	-Commissioning Report from Biogas Companies (BC). - VPA Database indicating digester code, address and GPS coordinate.
2	Double counting	-Double counting is avoided by assuring that no digester is already included to a different CDM project or VPA. - This is confirmed by the CME based on a) the digester codes listed in the BSP database and b) if necessary also GPS coordinates (the latter applies if biogas projects emerge under the CDM that is not part of the BSP).	-VPA Database indicating digester code, address and GPS coordinate. - Unique GPS reading of each digester. - CDM website indicating potential further projects not included to BSP using the same technology

3	Technology	-AEPC has implemented this VPA as part of the BSP. - All digesters listed in the CPA are household biogas digesters with a sludge and gas holding capacity range of 2-10 m³. -Biogas is supplied to a stove with a maximum capacity of 400 l/h leading to a maximum annual gas capacity of not more than 1.86 kWth per stove. - The equipment for each biogas plant installation under VPA is new and not transferred from other project activities.	-Commissioning Report from Biogas Companies (BC). - Technical specification documents detailing digester models and equipment applied.
4	Start Date	-The start date of a VPA is the date of commissioning of the first biogas digester included to that respective VPA. - The start date of VPA is 09/04/2016, which is the date of commissioning of the first digester in VPA. - The start of VPA is after the date of commissioning of the last installation included in VPA-8 i.e. 08/14/2016. - The date of commissioning is recorded in the Commissioning Report, which is archived and the date recorded in the VPA database.	-Commissioning Report from Biogas Companies (BC), indicating the commissioning date. -VPA Database
5	Compliance with applied methodology	-The activity replaces non-renewable biomass. This is confirmed through Biogas Users' Survey conducted by an independent third party for the biogas digesters implemented by BSP.	-Report confirming use of nonrenewable biomass as firewood prior to installation of digesters (e.g. BUS)
6	Diversion of official development assistance	-The VPA does not result into the diversion of official development assistance.	-Declaration from VPA implementer/AEPC. - Confirmation of ODA non diversion.

7	Target Group and distribution mechanism	-The target groups within the VPA are households.	-Installation confirmation from Biogas Companies (BC) indicating that the digesters are installed in a household.
8	Threshold Check	-Number of biogas digester included in each VPA shall not exceed 20,000 units, which assures compliance with the small scale limit of 45MWth. ²	-BSP/AEPC database to confirm the number of digesters in VPA#9 is 17,304.
9	Other / Voluntary action	-The owners of the digesters listed in the VPA#9 have signed an agreement in which it allows AEPC to market the emission reductions from the installation and operation of the digester. - Digesters implemented in VPA#9 are voluntary action and not mandated by the Government of Nepal.	-Contract of AEPC and owners of digesters confirming emission reduction purchase. - Confirmation that each VPA is a voluntary action not mandated by the Government of Nepal

The VPA was validated against all the criteria for the inclusion including safeguarding principles and the SDG outcomes and found it in-line with the requirement and was included as VPA during first crediting period.

A.1.2. Legal ownership of products generated by the VPA and legal rights to alter use of resources required to service the project

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The technology used in this PoA is the household level biogas plants and the owner of the technology is the particular household using biogas plants. The owners of a digester signed an agreement with AEPC by transferring all legal rights, interests, credits, entitlements, benefits or allowances arising from or in connection with any greenhouse gas emissions reductions arising from the operation of the digester (Emission Reduction), and agrees to take all necessary action required to ensure the transfer of those Emission Reductions to the Alternative Energy Promotion Centre or its nominee,

² Estimated maximum capacity of 1.86 kWth per stove. Considering that the limit for SSC is 45 MW_{th}, the maximum number of digesters allowed under a CPA (20,000) remains well below the SSC threshold.

including executing any relevant documents. So, the ownership of the products that are generated under Gold Standard Certification is under Alternative Energy Promotion Centre.

The VPA is located within the boundary of Nepal. Nepal being a Least Developed Country, it has no any cap enforced for the emission reduction. It is also non-annex 1 country under Kyoto Protocol. If any cap for the emission reduction will be enforced in future for Nepal and AEPC uses the GS-CERs issued to offset the emission reduction, the equivalent amount of the CERs/GS-CERs will be voluntarily retired to fulfill the cap enforced for Nepal.

A.2. Location of VPA

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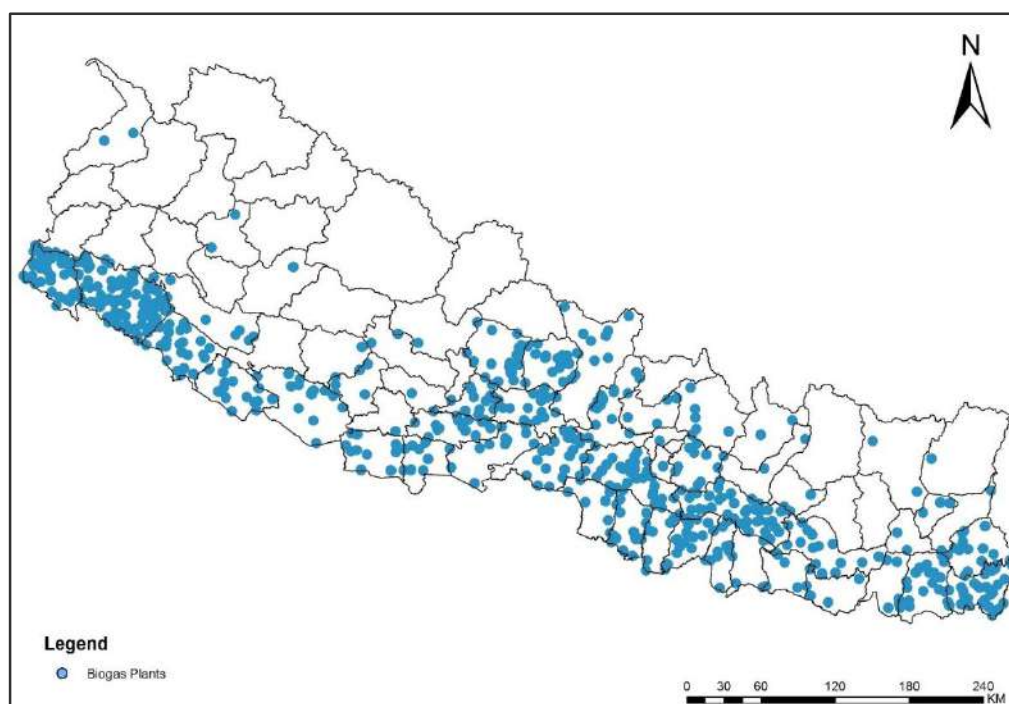
The digesters in this VPA are located at various locations across Nepal. The geographical coordinates of Nepal are:

Latitude – North 26.20 degree to North 30.45 degree

Longitude – East 80.07 degree to East 88.20 degree

The VPA database contains the following information for each digester: owner's name, spouse name, VDC/NP, ward number or cluster, district, region, plant size, name of Installation Company, digester code and the commissioning date. The coverage of biogas plant in Map of Nepal is shown in figure 1.

Figure 1: Map of Nepal indicating the distribution of digesters in VPA

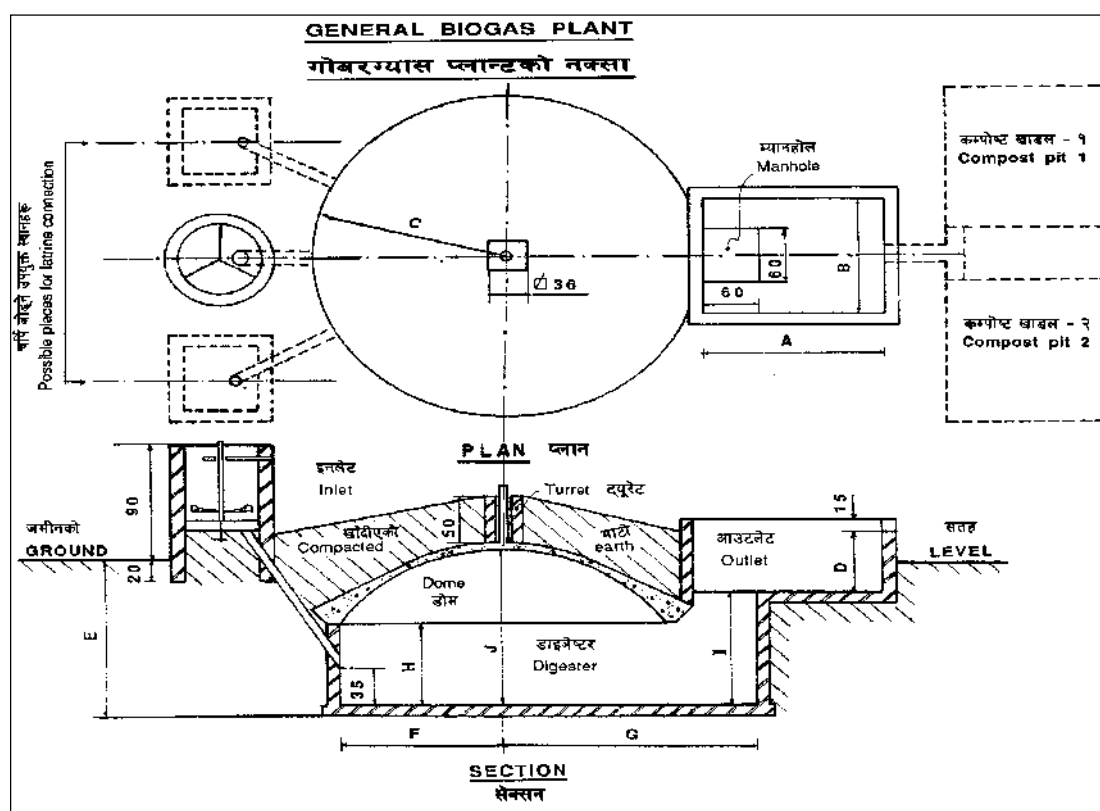


A.3. Technologies and/or measures

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The technologies used in this VPA are household biogas digesters with a sludge and gas holding capacity range of up to 10 m³. The different sizes of the digesters that would be included in the programme would be of 2, 4, 6, and 8 m³. The programmes uses only one design i.e. GGC 2047 model. The biogas digesters are based on a uniform technical design and are manufactured and installed following established technical standards in Nepal. The digester itself is a closed underground container made of concrete or other materials. The design of the digester is mentioned below:

Figure 2: Biogas Model GGC 2047



The GGC 2047 biogas digester consists of five main structures or components. They are the inlet, outlet, digester, dome and the compost pits. The required quantity of dung and water is mixed in the inlet tank and this mix in the form of slurry is allowed to be digested inside the digester. The gas produced in the digester is collected in the dome, called as the gas holder. The digested slurry flows to the outlet tank from the digester through the manhole. The slurry then flows through the overflow opening to the compost pit where it is collected and composted. The gas is supplied to the point of application through the pipeline. The average life of the system is taken as 20 years.

In the VPA, the point of applications is a stove. The biogas is extracted from the digester and transported to the stove. The digester has an over pressure which creates a stable

flow of gas for use in the cooking stoves.³ The biogas consumption capacity of each biogas stove is 400 litre/hour⁴. With an estimated methane content of 52%⁵ this gives an annual natural gas capacity of not more than 1.86 kW_{th} per stove. To allow for quality monitoring and continuous digester improvement BSP has a strong Monitoring and Evaluation system in place. This monitoring is crucial to maintain high technical standards.

A.4. Scale of the VPA

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The small scale VPA is not a de-bundled component of a large CDM project. Each of the independent subsystems (bio digesters) included in the VPA is not greater than 1% of the threshold defined for a small scale project⁶. 1% of the 15 MW_{el} (45MW_{th}) threshold for type I projects is 150 kW_{el} (450kW_{th}). The capacity of a digester is not more than 1.86 kW_{th} (see section A.3 of the CDM-SSC-PoA) and hence remains well below the 1% of 15 MW threshold.

A.5. Funding sources of VPA

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The digesters listed in the CPA receive subsidies and technical support under the BSP program. The BSP program is funded by the entities listed below. These include:

- Danida
- Norway

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

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AMS I.E.: Switch from non-renewable biomass for thermal applications by the user, version 09

<https://cdm.unfccc.int/methodologies/DB/CU5MMCFAZCZKDP0V9DYAS7VQ560BJW>

³ The same stove types and capacity (biogas burners) are used by all the project participants. The stove and biogas burners are manufactured by various biogas companies with the uniform technical design approved by BSP- Nepal

⁴ The referred report uses a calculation that "one stove under normal condition consumes about 15 cft. of gas/hr". One cubic feet volume is equivalent to 28.31 liters which thus result into circa 400 liters (15x28.31=424.65).

⁵ G.P. Devkota, "Final report on Analysis of Biogas Leakages from Household Digesters, submitted to Winrock International on August 2003, Kathmandu (sec 2.3, pp 3).

⁶ Guidelines on Assessment of Debundling for SSC Project Activities – Version 03, (EB 54, Annex 13)

B.2. Applicability of methodology (ies)

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The methodology AMS-I.E: "Switch from Non-Renewable Biomass for Thermal Applications by the User", version 04 was used for the PoA during first crediting period. The same methodology with version 9.0 is applied for crediting period renewable for the second crediting period. The applicability of the methodology is outlined as below:

Criteria AMS-I.E.	Explanation
The methodology is applicable for technologies displacing use of non-renewable biomass by renewable energy.	The PoA will replace non-renewable biomass by introducing the biogas digester producing renewable energy.
Small-Scale project requirement: For biomass, biofuel and biogas project activities, the maximal limit of 15MW(e) is equivalent to 45 MW thermal output of the equipment or the plant (e.g. boilers). For thermal applications of biomass, biofuels or biogas (e.g. the cookstoves), the limit of 45 MW _{th} is the installed/rated capacity of the thermal application equipment or device/s (e.g. biogas stoves).	The biogas capacity of each stove is 400 litre/hour. With a methane content of 52%, this gives an annual natural gas capacity of not more than 1.86 kW _{th} per stove (validated during registration). This means that around 24,000 stoves would still have an aggregated capacity below the 45MW _{th} small scale threshold value, however the CPA will be limited to 20000 stoves only.
This methodology comprises of activities to displace the use of non-renewable biomass by introducing renewable energy technologies. Examples of these technologies include, but are not limited to biogas stoves, bio-ethanol stoves, solar cookers, passive solar homes.	The digesters are indeed "small thermal appliances that displace the use of non-renewable biomass by introducing new renewable energy end-user technologies". AMS-I.E. even lists biogas stoves as an example of eligible end user technologies.
Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.	The BUS conducted in 2018 for PoA demonstrated that the time needed to gather firewood, the price of firewood and the distance travelled to gather firewood is increasing at least since December 1989. In that survey the respondents were asked to provide averages for the time needed to gather firewood, the distance travelled and the price. The average of the estimates from all respondents, showed a clear increase on all three indicators.

For project activities introducing bio-ethanol cook-stoves, project participants or coordinating and managing entities shall demonstrate that the bio-ethanol cook-stoves are designed, constructed and operated to the requirements (e.g. with regard to safety) of a relevant national or local standard or comparable literature. Latest guidelines issued by a relevant national authority or an international organization may also be used.	The PoA does not include the bio-ethanol cookstoves and hence this is not applicable for this PoA.
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B.3. VPA boundary

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The project boundary of VPA 9 is the boundary of Nepal. The project boundary follows the definition in AMS-I.E and is the physical, geographical area of the use of biomass or the renewable energy. This includes the digesters and the cooking stoves where the emission reduction takes place due displacement of non-renewable biomass. At the unit level, the project boundary is defined by the individual sites and refers to the operation of the biogas digester units at the household level.

Figures below show the physical relation between the emission sources and the project boundary for baseline and project scenario.

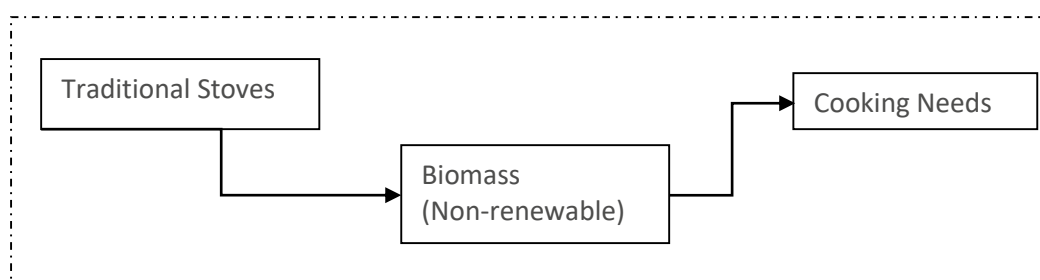


Figure 3: Baseline Emission Project Boundary

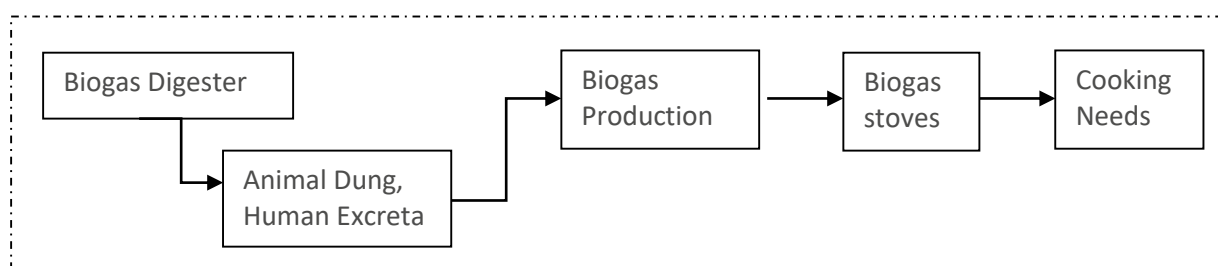


Figure 4: Project Boundary

Table below shows the emission sources that are under the control of the project participants and attributable to biogas digesters.

Source		GHGs Included?		Justification/Explanation
Baseline Scenario	Emissions from	CO ₂	Yes	Major emission
	NRB	CH ₄	No	Conservative
	use for cooking	N ₂ O	No	Conservative
Project scenario	Digester and biogas cooking stove	CO ₂	No	Conservative
		CH ₄	No	Conservative
		N ₂ O	No	Conservative
	Leakage emission	CO ₂	Yes	Default value from the methodology
		CH ₄	No	Conservative
		N ₂ O	No	Conservative

B.4. Establishment and description of baseline scenario

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The baseline scenario is continued use of NRB i.e. firewood for cooking. As the VPA displaces the use of non-renewable biomass by introducing a renewable energy technology, AMS-I.E, Version 09 is used to estimate the emission reductions for the first crediting period. According to AMS-I.E, Version 09, "in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs". As per the methodology, the baseline scenario adopted for the project is the use of fossil fuels (Non-renewable Biomass) for thermal energy applications. To confirm that NRB based cook stoves continue to be used, the project participants conducted a survey to check whether the firewood replaced by the digesters is subject to the trends defined in AMSI.E.: version 09 increasing amount of time needed or distance travelled for firewood gathering, increasing firewood prices or changes in the type of firewood used.

The indicators selected to monitor the continued displacement of NRB in the project are:

- 1) Increase in time needed to gather firewood or increase in distance travelled to gather firewood
- 2) Increasing trend in fuel wood price.

The baseline scenario has been determined at the PoA level during the crediting period renewal of PoA. The survey was conducted in 2017/18 and was established that the

continuation of use of current baseline equipment, (non-renewable biomass based cook stove) is the most likely scenario for the crediting period.

The Methodological tool "Assessment of validity of the original/current baseline and update of the baseline at the renewal of a crediting period" Version 03.0.1 (EB 66, Annex 47) was used to assess the continued validity of the original baseline. This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period.

Step 1: Assess the validity of the current baseline for the next crediting period

The "Procedures for the renewal of the crediting period of a registered CDM project activity" requires assessing the impact of new relevant national and/or sectoral policies and circumstances on the baseline.

Step 1: Assess the validity of the current baseline for the next crediting period

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

There are no mandatory national and/or sectoral policies that affect the baseline scenario during the renewal of the crediting period. The relevant national and sectoral policies for the promotion of the biogas digester in the Nepal are the Rural Energy Policy, the Renewable (Rural) Energy Subsidy Policy and the Renewable (Rural) Energy Subsidy Delivery Mechanism. The Rural Energy Policy was published in the year 2006. The Renewable (Rural) Energy Subsidy Policy was initially published in 2000 (prior to PoA start date) and latest revision has happened in 2016. Similarly, the Renewable (Rural) Energy Subsidy Delivery Mechanism was initially published in 2000 (prior to PoA start date) and latest revised in 2017. The Renewable (Rural) Energy Subsidy Policy has made provisions of financial subsidy support for the installation of the household biogas plants. The Rural Energy Policy has put emphasis to increase efficiency, reduce cost of the household biogas production technology, and to promote it in high mountains.

The Renewable (Rural) Energy Subsidy Policy 2016 has made provisions of financial subsidy support for the installation of the household biogas plants in the range from 2, 4, 6, m³ and above. The subsidy support is categorised based on the location of the biogas plants in the Terai (Southern Plains), Hills and Remote Hills. The subsidy support provided would cover a maximum of around 40% cost of installation of the biogas plants. The Renewable (Rural) Energy Subsidy Delivery Mechanism, prepared based on the Subsidy Policy, has made arrangements to channel the subsidy to the biogas users through the pre-qualified biogas companies, which provide installation and after sales services related to biogas as per the standard and guidelines approved by the AEPC.

The above policies only provide the incentives for the installation of household biogas plants and do not provide any obligations or enforced targets, nor do they ban the use of fuel wood for cooking. The baseline scenario established for the PoA is therefore still valid.

Step 1.2: Assess the impact of circumstances

There is no impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions.

As demonstrated in Step 1.1, the promotion of household biogas plants through national policies set up is on voluntary basis. The Renewable (Rural) Energy Subsidy Delivery Mechanism is part of the package design to enhance the Biogas Support Program. No other market transformation activities or circumstances outside the implementation of the BSP have influenced households shift from non-renewable biomass for cooking in rural areas or the shift to rural households biogas plants using renewable biomass. The deployment of BSP has continued during the first crediting period of the PoA with subsequent development of 8 CPAs using the same baseline. As described in Step 1.3, despite the policies, NRB continue to be the main energy source for cooking in rural areas. This is confirmed by the Biogas Users Survey 2017/18 for PoA. The conditions used to determine the baseline emission in the previous crediting period are still valid.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

This sub-step is applicable to the PoA since the baseline is the continuation of the existing practice, i.e. the households will rely on traditional cook stoves using non-renewable biomass in the absence of the project activity. The traditional stoves made from local materials are expected to continue in the absence of the project. Therefore, the continued use of baseline materials is possible.

To confirm that NRB based cook stoves continue to be used, the project participants conducted a survey to check whether the firewood replaced by the digesters is subject to the trends defined in AMS-I.E.: version 09 increasing amount of time needed or distance travelled for firewood gathering, increasing firewood prices or changes in the type of firewood used. The indicators selected to monitor the continued displacement of NRB in the project are:

- 1) Increase in time needed to gather firewood or increase in distance travelled to gather firewood
- 2) Increasing trend in fuel wood price.

The Biogas Users Survey 2017/18 reveals the following:

- Increase in time and distance travelled to gather firewood.

Trends in distance travelled for firewood gathering or trends in time needed for firewood gathering indicating depletion of resources available was monitored through perception survey and the result is given in table below:

Type	% of people perceived							
	CPA-1	CPA-2	CPA-3	CPA-4	CPA-5	CPA-6	CPA-7	CPA-8
Increased	52	58	51	75	39	52	74	56
Same as Previous	39	23	14	23	54	43	26	21
Decreased	08	20	35	2	6	5	0	22

Source: Table 6, Biogas User Survey, 2018

The result above indicates that the sourcing biomass from forest over the years have become even more difficult.

- Increase in fuel wood price:

The households were interviewed on the perceived price of firewood in 1989, 2000 and 2018 during Biogas User Survey 2017/18 for the PoA. The results reveal that the average market price of one bhari⁷ of fuel wood in 1989, 2000 and in 2018 is in increasing trend.

Year	Average price of fuel-wood (NPR)							
	CPA-1	CPA-2	CPA-3	CPA-4	CPA-5	CPA-6	CPA-7	CPA-8
1989	45	34	41	28	63	61	63	37
2000	182	180	149	126	208	184	208	139
2018	494	494	453	429	502	459	502	390

Source: Table 8, Biogas User Survey, 2018

If the operational lifetime of the biogas digesters is completed within this crediting period, that particular biogas digester will not be considered for the baseline emission calculation from the next consecutive monitoring period. As it can be seen that, the continuation of use of current baseline equipment, (non-renewable biomass based cook stove) is the most likely scenario for the crediting period for which renewal is being requested.

Step 1.4: Assessment of the validity of the data and parameters

There are some parameters such as emission factors per fuel source (IPCC default values), emission reduction factor of the biogas units, which were determined at the start of the first crediting period and not monitored during the first crediting period, are

⁷ 1 Bhari is about 35 kg in an average

not valid anymore. AMS-I.E, Version 09 provides new guidance on key parameters, different default values and emission reductions calculation formulas. So the current baseline is updated for the 2nd crediting period according to the AMS-I.E, Version 09. Application of Steps 1.1, 1.2, 1.3 and 1.4 confirmed that the current baseline is valid for the second crediting period, but data and parameters needs to be updated. Therefore, step 2 is used.

Step 2: Update the current baseline and the data and parameters

Step 2.1: Update the current baseline

As per the outcome of step 1, this step is not applicable as the current baseline is still valid.

Step 2.2: Update the data and parameters

As mentioned in step 1.4 above, many default parameters have been updated and new parameters have been used (as per AMS-I.E Version 09) for this crediting period. More details can be seen in sections I.6 and I.7 of the PoA-DD.

B.5. Demonstration of additionality

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Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).

Guidelines on the demonstration of additionality of small scale project activities" (version 09) EB 68 Annex 27.

Describe how the proposed VPA meets the criteria for deemed additionality.

The paragraph 2 of this guideline states that, "Documentation of barriers, as per paragraph 1 above is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW)"

The sub-section 2 (c) of paragraph states that, "Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds."

Each unit of biogas digester has the capacity of not more than 1.86 kWth which is less than 5% of the small-scale CDM threshold, or 750 kW installed capacity. The PoA is thus additional and there is no need for further assessment and demonstration of additionality.

B.5.1. Prior Consideration

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Not applicable

B.5.2. Ongoing Financial Need

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The VPA consists of household technologies and are fixed dome biogas plants that require minimum management cost and repair and maintenance. Also, the technologies under the VPAs are already implemented; the ongoing financial need is basically for the management and repair/maintenance of the technologies. Since the VPA is automatically additional, the detail demonstration of ongoing financial need is not applicable for VPA. However, the sales of GS CERs are instrumental for the repair/maintenance and management of the PoA. So, the ongoing financial need derived from the GS certification is necessary to enhance the project's operation in 2nd crediting period. The financial benefit from GS certification helps to maintain the PoA contributing to the sustainable development of the community and the country and further emission reduction.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	SDG IMPACT INDICATOR (PROPOSED OR SDG INDICATOR)

SDG 3: Ensure healthy lives and promote well-being 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to household and ambient air pollution -Average annual consumption of woody biomass per household in the pre-project devices during the project activity (ton/HH/year) - Quantity of woody biomass that is substituted or displaced (Tons) - Net calorific value of the non-renewable biomass that is substituted (TJ/ton) - Users' perception on reduction in indoor air pollution (%) - Users' perception on reduction in health problem (eye infection, respiratory disease, Cough and Fire related injury) (%) - User's perception in Time saving for the cooking (reduce exposure to indoor air pollution for men, women and children) (%) 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) - Users' perception on connection of toilet to biogas (%) 3.9.3 Mortality rate attributed to unintentional poisoning - Users perception in reduction of chemical fertilizers (use of Farmyard manure, Bio-slurry, Urea, DAP and Potash) (%)
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SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all	7.1: By 2030, ensure universal access to affordable, reliable and modern energy services	7.1.2 Proportion of population with primary reliance on clean fuels and technology - Users' perception on time saving due to project for firewood collection (For men, women and children) (%) - Number of people trained to promote Biogas plants (No)
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SDG 13: Climate Action	N/A	Emission Reduction
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B.6.1. Explanation of methodological choices/approaches for estimating the SDG Impact

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B.6.2. Explanation of methodological choices/approaches for estimating the SDG Impact

Baseline Estimate

Baseline estimate for SDG 13

According to AMS-I.E. version 09, para 20, the baseline emission reductions under a CPA are calculated as the following:

$$BE_y = B_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil_fuel}$$

Where

BE_y	Baseline Emissions during the year y (tCO ₂ e)
B_y	Quantity of woody biomass that is substituted or displaced in tonnes
$f_{NRB,y}$	Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel: 0.0156 TJ/tonne. The value is according to the methodology AMS I.E.
$EF_{projected_fossil_fuel}$	Emission factor for substitution of non-renewable woody biomass by similar consumers. Use a value of 63.7 tCO ₂ /TJ ⁸

⁸ This value represents the emission factor of the substitution fuels likely to be used by similar users, on a weighted average basis. The value is calculated, based on the global average ratio of cooking fuels (the normalized ratio of kerosene and liquefied petroleum gas (LPG) excluding coal), i.e. 9 per cent for kerosene (71.5 t CO₂/TJ) and 91 per cent for LPG (63.0 t CO₂/TJ).

Following option a) of paragraph 21, B_y is “Calculated as the product of the number of households multiplied by the estimate of average annual consumption of woody biomass per household that is displaced by the project activity (tonnes/household/year)”.

Thus, B_y will be calculated as follows:

$$B_y = N_{HH} \times (BC_{BL,HH,y} - BC_{PJ,HH,y})$$

Where

B_y	Quantity of woody biomass that is substituted or displaced in tonnes
N_{HH}	Number of households in the project activity, number
$BC_{BL,HH,y}$	Average annual consumption of woody biomass per household before the start of the project activity, tonnes/household/year
$BC_{PJ,HH,y}$	If it is found that pre-project devices were not completely displaced but continue to be used to some extent, average annual consumption of woody biomass per household in the pre-project devices during the project activity, tonnes/household/year

B_y will be calculated multiplying with the actual household of this CPA that have operational digester in year y identified through survey method. Calculations will be carried out based on Excel spread sheets using the database of CPA that are already included. The database provides e.g. commissioning date.

Baseline estimation for SDG 3 and SDG 7:

Since the baseline technologies used for the project is considered as the traditional cookstoves users, the baseline situation will be analyzed based on the impact of the technology to the households and users. The baseline situation identified are poor situation when used the traditional stoves. The impact of the project activities are basically monitored during the project activity. The net calorific value of woody biomass will be taken from IPCC guideline. Following parameters will be monitored:

SDG 3

3.9.1 Mortality rate attributed to household and ambient air pollution

- Average annual consumption of woody biomass per household in the pre-project devices during the project activity (ton/HH/year)
- Quantity of woody biomass that is substituted or displaced (ton/year)
- Net calorific value of the non-renewable biomass that is substituted (TJ/ton)
- Users’ perception on reduction in indoor air pollution (% response)
- Users’ perception on reduction in health problem (% response)
- User’s perception in Time saving for the cooking (% response)

3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)

- Users' perception on connection of toilet to biogas (% connection)

3.9.3 Mortality rate attributed to unintentional poisoning

- Users perception in reduction of chemical fertilizers (% in increase/reduction)

SDG 7

7.1.2 Proportion of population with primary reliance on clean fuels and technology

- Users' perception on time saving due to project for firewood collection (% response)
- Number of people trained to promote Biogas plants

Project Estimate

Project estimate for SDG 13

The AMS I.E Version 9 requires calculation of project emission using "TOOL16: Project and leakage emissions from biomass". As the fuel-wood are basically sourced from the nearby and natural forest, which does not require processing of the feedstock and also does not include the cultivation, the project emissions (PE_y) is not applicable to this PA and is taken as zero.

Leakage

The default factor of 0.95 is used to account for any potential leakage (i.e. By is multiplied by a net to gross adjustment factor of 0.95 to account for leakages).

Thus the leakage emission under a CPA is calculated as the following:

$$LE_y = 0.05 \times B_y \cdot f_{NRB,y} \cdot NCV_{biomass} \cdot EF_{projected_fossilfuel} \quad 3$$

Project estimate for SDG 3 and SDG 7:

Since the implementation of biogas used for the project is considered as beneficial for reducing indoor air pollution and increase the access to renewable and clean energy, this will be identify through the perception survey conducted with the biogas users under the project activities. The parameters to be monitored for the SDG 3 and SDG 7 are given under section B.7.1 of the VPA-DD. The net calorific value of woody biomass will be taken from IPCC guideline. Following parameters will be monitored through Biogas User Survey:

SDG 3

3.9.1 Mortality rate attributed to household and ambient air pollution

- Average annual consumption of woody biomass per household in the pre-project devices during the project activity (ton/HH/year)
- Quantity of woody biomass that is substituted or displaced (ton/year)
- Net calorific value of the non-renewable biomass that is substituted (TJ/ton)
- Users' perception on reduction in indoor air pollution (% response)
- Users' perception on reduction in health problem (% response)
- User's perception in Time saving for the cooking (% response)

3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)

- Users' perception on connection of toilet to biogas (% connection)

3.9.3 Mortality rate attributed to unintentional poisoning

- Users perception in reduction of chemical fertilizers (% in increase/reduction)

SDG 7

7.1.2 Proportion of population with primary reliance on clean fuels and technology

- Users' perception on time saving due to project for firewood collection (% response)
- Number of people trained to promote Biogas plants

Net Benefit

Net benefit estimate for SDG 13

Emission Reductions

As the methodology AMS IE version 9, the emission reductions are to be estimated based on the following equation:

$$ER_y = BE_y - PE_y - LE_y$$

Where,

ER_y = Emission reductions in year y, tonnes CO₂eq

Net benefit estimation for SDG 3 and SDG 7:

Since the implementation of biogas used for the project is considered as beneficial for reducing indoor air pollution and increase the access to renewable and clean energy, this will be identify through the perception survey conducted with the biogas users under the project activities and compared with the baseline situation, the net benefit for the SDGs will be identified.

SDG 3

3.9.1 Mortality rate attributed to household and ambient air pollution

- Average annual consumption of woody biomass per household in the pre-project devices during the project activity (ton/HH/year)
- Quantity of woody biomass that is substituted or displaced (ton/year)
- Net calorific value of the non-renewable biomass that is substituted (TJ/ton)
- Users' perception on reduction in indoor air pollution (% response)
- Users' perception on reduction in health problem (% response)
- User's perception in Time saving for the cooking (% response)

3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)

- Users' perception on connection of toilet to biogas (% connection)

3.9.3 Mortality rate attributed to unintentional poisoning

- Users perception in reduction of chemical fertilizers (% in increase/reduction)

SDG 7

7.1.2 Proportion of population with primary reliance on clean fuels and technology

- Users' perception on time saving due to project for firewood collection (% response)
- Number of people trained to promote Biogas plants

B.6.3. Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{\text{projected_fossil fuel}}$
Unit	tCO ₂ /TJ
Description	Emission factor for the projected fossil fuel consumption in the baseline.
Source of data	IPCC
Value(s) applied	63.7
Choice of data or Measurement methods and procedures	AMS-I.E version 09 requires using this value.
Purpose of data	Emission Reduction calculation
Additional comment	NA

SDG 3

Data/parameter	$f_{\text{NRB},y}$
Unit	%
Description	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass
Source of data	Calculated as per "TOOL30: Calculation of the fraction of non-renewable biomass"
Value(s) applied	86.1%
Choice of data or Measurement methods and procedures	The value is calculated as 86.1% using the national statistics and also validated by the Ministry of Forest and Environment, Government of Nepal. This value is for the national level, so will not be monitored.
Purpose of data	Calculation of baseline emission
Additional comment	This parameter shall remain fixed for the crediting period.

Data/parameter	BC_{BL,HH,y}
Unit	tonne/household/year
Description	Average annual consumption of woody biomass per household before the start of the project activity
Source of data	Based on survey (Biogas User Survey (BUS)) for similar project activities. The woody biomass substituted or displaced is conservatively taken as 4.5 tons/HH/years for ex-ante calculation of emission reduction for which the annual average consumption of woody biomass before the start of the project activities is 5.04 tons/HH/year and the average annual woody biomass consumption by pre-project device during the project activities is 0.54 tons/HH/Year.
Value(s) applied	5.04 tonne/household/year
Choice of data or Measurement methods and procedures	Calculated using option (b) Historical data or a sample survey conducted as per the latest version of the "Standards: Sampling and surveys for CDM project activities and programme of activities;" Biogas User Survey follows the standard sampling and surveys guidelines
Purpose of data	Calculation of baseline emission
Additional comment	This value is used in the calculations and shall remain fixed for the crediting period.

SDG 7

Data/parameter	N_{HH}
Unit	Numbers
Description	Number of households in each VPA in year y
Source of data	BSP database for the VPA
Value(s) applied	17,304 digesters
Choice of data or Measurement methods and procedures	The registration procedure of the database avoids double counting of digesters and the registration of digesters that have not been commissioned.
Purpose of data	Calculation of baseline emission
Additional comment	During calculation of Emission Reduction, it will be based on actual number of households having the biogas operational

B.6.4. Ex ante estimation of SDG Impact

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The emission reduction calculation is based on data that is specified to digester size and region. This section provides explanation of ex-ante calculation made for the VPA.

Baseline Estimates

Baseline estimate for SDG 13

Baseline Emission

According to AMS-I.E (version 09), the baseline emission under a CPA are calculated as the following:

$$BE_y = B_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil_fuel}$$

In which:

BE_y Baseline Emissions during the year y (tCO₂e)

B_y Quantity of woody biomass that is substituted or displaced in tonnes

$f_{NRB,y}$ Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass, Use 86.1%⁹

$NCV_{biomass}$ Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel: 0.0156 TJ/tonne). The value is according to the methodology AMS I.E.

$EF_{projected_fossil_fuel}$ Emission factor for substitution of non-renewable woody biomass by similar consumers. Use a value of 63.7 tCO₂/TJ¹⁰

Thus, B_y will be calculated as follows:

B_y is calculated as using the following values

N_{HH}	17,304 in VPA-9
Displacement of Woody Biomass ($BC_{BL,HH,y} - BC_{PJ,HH,y}$)	4.50 tonne/household/year ¹¹
Operational status of Biogas	89% ¹²

⁹ The value is calculated using "TOOL 30: Calculation of the fraction of non-renewable biomass" as given in section I.6.1 of CDM PoA-DD and the value is fixed ex-ante. Use 86.1%

¹⁰ This value represents the emission factor of the substitution fuels likely to be used by similar users, on a weighted average basis. The value is calculated, based on the global average ratio of cooking fuels (the normalized ratio of kerosene and liquefied petroleum gas (LPG) excluding coal), i.e. 9 per cent for kerosene (71.5 t CO₂/TJ) and 91 per cent for LPG (63.0 t CO₂/TJ).

¹¹ Conservative value taken as stipulated in section I.6.1 of CDM PoA DD and is fixed ex-ante.

¹² For ex ante, operational status of the CPA-6 is taken as 89% stipulated in the VPA-DD. The actual operational status will be arrived using sample survey for ex-post and may vary (higher or lower) for the CPA.

Number of Household with operational digester	N_{HH} * Operational status of Biogas
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$$By = 17,304 \times 0.89 \times 4.5 = 69,302.52 \text{ tonne/year}$$

Substituting the values,

$$\text{Baseline Emission (BE}_y) = 69,302.52 \times 0.861 \times 0.0156 \times 63.7 = 59,294 \text{ tCO}_2\text{e}$$

Baseline estimation for SDG 3:

- 1) 3.9.1 Mortality rate attributed to household and ambient air pollution (Average annual consumption of woody biomass per household in the pre-project devices during the project activity): 0 tonne/household/year (as no project devices was introduced)
- 2) 3.9.1 Mortality rate attributed to household and ambient air pollution (Quantity of woody biomass that is substituted or displaced): 0 tonnes/year
- 3) 3.9.1 Mortality rate attributed to household and ambient air pollution (Net calorific value of the non-renewable biomass that is substituted): 0 TJ/tonne
- 4) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in indoor air pollution): 0% households (As using biomass for cooking)
- 5) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in health problem): 0% households perceived in reduction of eye infection, respiratory disease, cough and fire related injury (as using biomass for cooking)
- 6) 3.9.1 Mortality rate attributed to household and ambient air pollution (User's perception in Time saving for the cooking (reduce exposure to indoor air pollution)): 0% households for men, women and children (as using biomass for cooking)
- 7) 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (Users' perception on connection of toilet to biogas): 0% connection of toilet to Biogas as No biogas was used before project activity
- 8) 3.9.3 Mortality rate attributed to unintentional poisoning (Users perception in reduction of chemical fertilizers): 0% reduction in use of chemical fertilizers (use of Farmyard manure, Bio-slurry, Urea, DAP and Potash) as using no biogas slurry.

Baseline estimation for SDG 7:

- 1) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Users' perception on time saving due to project for firewood

collection): 0% households for men, women and children as no biogas was used in baseline

- 2) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Number of people trained to promote Biogas plants): 0 Mason trained as no biogas were in use in baseline

Project Estimates

Project Estimate for SDG 13

Project Emissions

$PE_y = 0$

Leakage

The default factor of 0.95 is used to account for any potential leakage, as prescribed by the methodology. Thus the leakage emission under a CPA is calculated as the following:

$$LE_y = 0.05 \times 69,302.52 \times 0.861 \times 0.0156 \times 63.7 = 2,965 \text{ tCO}_{2e}$$

Project Estimate for SDG 3:

- 1) 3.9.1 Mortality rate attributed to household and ambient air pollution (Average annual consumption of woody biomass per household in the pre-project devices during the project activity): 0.54 tonne/household/year (Biogas will be in use)
- 2) 3.9.1 Mortality rate attributed to household and ambient air pollution (Quantity of woody biomass that is substituted or displaced): 69,302.52 tons/year (Biogas displaces the firewood)
- 3) 3.9.1 Mortality rate attributed to household and ambient air pollution (Net calorific value of the non-renewable biomass that is substituted): 0.0156 TJ/tones
- 4) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in indoor air pollution): 100% households (As by using biogas, it is expected 100% users will perceive reduction)
- 5) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in health problem): 100% households perceive reduction in eye infection, respiratory disease, cough and fire related injury (As by using biogas, it is expected 100% users will perceive reduction)
- 6) 3.9.1 Mortality rate attributed to household and ambient air pollution (User's perception in Time saving for the cooking (reduce exposure to indoor air pollution)): 100% households for men, women and children by using biogas for cooking
- 7) 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (Users' perception on connection of toilet to biogas): 100% connection of toilet to Biogas
- 3.9.3 Mortality rate attributed to unintentional poisoning (Users perception in reduction of chemical fertilizers): 100% changes in use of chemical fertilizers ((use of Farmyard manure, Bio-slurry, Urea, DAP and Potash) using biogas slurry.

Baseline estimation for SDG 7:

- 1) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Users' perception on time saving due to project for firewood collection): 100% households for men, women and children due to using biogas
- 2) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Number of people trained to promote Biogas plants): As and when required, 20 Mason will be trained for the biogas installation during period of PoA.

Net benefit

Net Benefit for SDG 13

Emission Reductions

As the methodology AMS IE version 09, para 27, the ex-ante emission reduction is estimated as below:

$$\begin{aligned}
 ER_y &= BE_y - PE_y - LE_y \\
 &= 59,294 - 0 - 2,965 \\
 &= 56,329 \text{ tCO}_{2e}
 \end{aligned}$$

Please refer ER calculation spreadsheet for further details of the calculation.

Net benefit for SDG 3:

- 1) 3.9.1 Mortality rate attributed to household and ambient air pollution (Average annual consumption of woody biomass per household in the pre-project devices during the project activity): reduce by 0.54 tonne/household/year
- 2) 3.9.1 Mortality rate attributed to household and ambient air pollution (Quantity of woody biomass that is substituted or displaced): reduced by 69,302.52 tonnes/year.
- 3) 3.9.1 Mortality rate attributed to household and ambient air pollution (Net calorific value of the non-renewable biomass that is substituted): reduced by 0.0156 TJ/tones
- 4) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in indoor air pollution): 100% households (As by using biogas, it is expected 100% users will perceive reduction)
- 5) 3.9.1 Mortality rate attributed to household and ambient air pollution (Users' perception on reduction in health problem): 100% households perceive reduction in eye infection, respiratory disease, cough and fire related injury (As by using biogas, it is expected 100% users will perceive reduction)
- 6) 3.9.1 Mortality rate attributed to household and ambient air pollution (User's perception in Time saving for the cooking (reduce exposure to indoor air pollution)): 100% households for men, women and children by using biogas for cooking
- 7) 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (Users' perception on connection of toilet to biogas): 100% connection of toilet to Biogas
- 3.9.3 Mortality rate attributed to unintentional poisoning (Users perception in reduction of chemical fertilizers): 100% changes in use of chemical fertilizers ((use of Farmyard manure, Bio-slurry, Urea, DAP and Potash) using biogas slurry.

Net benefit for SDG 7:

- 1) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Users' perception on time saving due to project for firewood collection): 100% households for men, women and children due to using biogas
- 2) 7.1.2 Proportion of population with primary reliance on clean fuels and technology (Number of people trained to promote Biogas plants): As and when required, 20 Masons will be trained for biogas installation during crediting period of PoA.

B.6.5. Summary of ex ante estimates of each SDG outcome

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1 (15/05/2024 - 14/05/2025)	59,294	2,965	56,329
Year 2 (15/05/2025 - 14/05/2026)	59,294	2,965	56,329
Year 2 (15/05/2026 - 14/05/2027)	59,294	2,965	56,329
Year 4 (15/05/2027 - 14/05/2028)	59,294	2,965	56,329
Year 5 (15/05/2028 - 14/05/2029)	59,294	2,965	56,329
Total	296,470	14,825	281,645
Total number of crediting years		5 Years	
Annual average over the crediting period	59,294	2,965	56,329

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 3

Data / Parameter	BC _{PJ,HH,y}
Unit	tonnes/household/year
Description	Average annual consumption of woody biomass per household in the pre-project devices during the project activity, if it is found that pre-project devices were not completely displaced but continue to be used to some extent.
Source of data	Biogas User Survey
Value(s) applied	0.54 tonnes/household/year for the ex-ante calculation as per the Biogas User Survey for similar project activities. For this crediting period, this parameter will be determined using regular user survey.
Measurement methods and procedures	Biogas User Survey will be conducted on a sample of households. The sample size is determined to achieve

	90% confidence interval and a 10% margin of error. During the survey, the estimates of the biogas users on the average annual consumption of woody biomass during the monitoring period will be captured.
Monitoring frequency	At least once every two years (biennial)
QA/QC procedures	Though the methodology requires sample survey biennially, CME conducts the user survey annually to ensure the number of biogas digesters operational for that particular year for each CPA and the consumption of the woody biomass by pre-project device if any during the project activities.
Purpose of data	Calculation of baseline emission
Additional comment	ERs will be accounted only for functional biogas in the particular monitoring period

Data / Parameter	By
Unit	tones/year
Description	Quantity of woody biomass that is substituted or displaced
Source of data	Biogas User Surveys
Value(s) applied	This will be calculated based on the operational status of the biogas digesters for particular monitoring period and the woody biomass consumed by pre-project devices during project activity. It ranges from zero when biogas is not in operation to 5.04 tonnes/household/year when $BC_{PJ,HH,y}$ is zero and biogas is operational.
Measurement methods and procedures	The calculation of the By depends on the operational status of the biogas units for the particular monitoring period and the operational status will be checked annually during the Biogas User Survey. From the total population of biogas units included in the project activity, statistically representative samples will be drawn for the purpose of carrying out the survey. The sample size is determined to achieve 90% confidence interval and a 10% margin of error. The percentage of biogas units found to be operational during the sample survey shall be used to calculate the weighted average operational status of the biogas which then will be used to calculate By as follows: $By = NHH * (BC_{BL,HH,y} - BC_{PJ,HH,y})$ where NHH will be the household with operational biogas digester for the particular monitoring period.

	$NHH = N * P_y$, where N is the number of bio digesters installed in the project and P_y is Proportion of Bio digesters operational estimated based on the sample survey
Monitoring frequency	Once in a Year
QA/QC procedures	Though the methodology requires sample survey biennially, CME conducts the user survey annually to ensure the number of biogas digesters operational for that particular year for each VPA.
Purpose of data	Calculation of baseline emission
Additional comment	Once the biogas included in the component project activity completes its operational lifetime, those biogas will not be considered for the next consecutive monitoring.

Data / Parameter	NCV_{biomass}
Unit	TJ/tonne
Description	Net calorific value of the non-renewable biomass briquettes or charcoal used in project devices
Source of data	Methodology AMS I.E. Version 09
Value(s) applied	0.0156
Measurement methods and procedures	De-default value will be applied from the methodology AMS I.E version 09
Monitoring frequency	N/A
QA/QC procedures	N/A
Purpose of data	AMS-I.E. Ver 09 requires using this value.
Additional comment	Calculation of baseline emission

Data / Parameter	Users' perception on reduction in indoor air pollution
Unit	Qualitative
Description	Users' perception on reduction in indoor air pollution
Source of data	Biogas User Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Air quality will be assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual

	VPA included in the PoA; survey will try to capture the view of the women actually involved in cooking.
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

Data / Parameter	Reduction in health problem
Unit	Qualitative
Description	Users' perception on reduction in health problem
Source of data	Biogas User Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Reduction in health problem will be assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual VPA included in the PoA.
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

Data / Parameter	User's perception in Time saving for the cooking (reduce exposure to indoor air pollution)
Unit	Qualitative
Description	Users' perception on time saving for cooking due to project
Source of data	Biogas User Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual VPA included in the PoA; survey will try to capture the view of the women actually involved in cooking.
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

Data / Parameter	Users perception in reduction of chemical fertilizers
Unit	Qualitative
Description	Users' perception on reduction in use of chemical fertilizers and use of bio-slurry
Source of data	Biogas User Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual VPA included in the PoA
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

SDG 7

Data / Parameter	Time saving (Fuel wood collection)
Unit	Qualitative
Description	Users' perception on time saving due to project for firewood collection
Source of data	Biogas User Survey
Value(s) applied	To be monitored
Measurement methods and procedures	Assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual VPA included in the PoA
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

Data / Parameter	Trainings to Masons
Unit	Number of people trained to promote Biogas plants
Description	Masons involved in constructing the biogas plants shall receive training on the proper installation of biogas digesters.

Source of data	Training report
Value(s) applied	To be monitored
Measurement methods and procedures	Training report
Monitoring frequency	At least bi-ennial
QA/QC procedures	N/A
Purpose of data	Sustainable Development Assessment.
Additional comment	N/A

Safeguarding Principle 9.8

Data / Parameter	Impact on Crop Productivity
Unit	Qualitative
Description	Users' perception on Impact on crop productivity (comparing to baseline)
Source of data	Sampling Surveys/Annual usage survey/Monitoring survey
Value(s) applied	To be monitored
Measurement methods and procedures	Assess through users interviews during the Biogas User Survey.
Monitoring frequency	at least biennial
QA/QC procedures	The selection of households under the surveys will ensure that these percentages are met also for each individual VPA included in the PoA
Purpose of data	Sustainable Development Assessment.
Additional comment	Requirements as defined in the sampling plan shall be met.

B.7.2. Sampling plan

>>

Internal monitoring activities as part of the overarching BSP programme

AEPC carries out thorough quality control activities to ensure that the biogas digesters are built according to set quality standards following the subsidy delivery mechanism and other set standard. This includes setting up random sampling, field visits, on the spot advice to biogas companies and biogas owners, collecting and analyzing data obtained through questionnaire during visits. Note that this quality control is carried out to ensure quality of the digesters but not necessarily to calculate the emission reductions.

Monitoring

1) Digester performance and average annual consumption of woody biomass

The performance of the bio-digesters and average annual consumption of woody biomass by project devices will be assessed based on the performance reports (Biogas User Survey). The corresponding survey may be conducted as part of the quality control procedures of AEPC.

A statistically representative sample will be surveyed individually for each VPA of the PoA. The Annual Biogas User Survey will be conducted following the Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4). As part of the survey, statistically representative sample of biogas users will be surveyed and in order to achieve 90% confidence interval and a 10% margin of error requirement for the sampled parameters. Stratified random sampling will be applied in conducting survey. The sample to be surveyed will be drawn randomly from the population of biogas digester distributed in each stratum (i.e. remote hill, hill and terai) spread within the project boundary of the PoA. In order to have an unbiased and independent assessment, the survey will be carried out through an independent agency to check the operation/functioning of the biogas units installed as part of each VPA.

Thus, the at least biennial performance reports (Biogas User Survey) will be used for the identification of the proportion of biogas digesters included in the VPAs that are operational. The proportion of biogas digesters that are operational will be counted towards the emission reduction for the VPAs while the proportion of the non-operational plants will not be considered towards ER calculation.

2) Displacement of NRB

The fraction of the Non-renewable biomass displaced by the PoA has been determined ex-ante in the PoA-DD and has been fixed for the second crediting period. The following indicators will be monitored through Biogas User Survey to confirm the displacement of NRB by households and perceptions of the biogas users on these indicators would be captured through survey and analysed. These indicators include:

- Trends in distance travelled for firewood gathering or trends in time needed for firewood gathering indicating depletion of resources available
- Trends in price of firewood indicating demand and scarcity
- Trends in type of cooking fuel collected that could indicate scarcity of fire wood

At least two of the above indicators should confirm the displacement of non-renewable biomass. The survey will seek to collect the data pertaining to the indicators for monitoring year.

3) Monitoring of other Sustainable Development Parameters

The monitoring of other sustainable development parameters will be done through the Biogas User Survey as mentioned above. The same sampled household will be used to assess those parameters along with the digesters performance and monitoring of

continued displacement of NRB. The corresponding sampling plan is given in Appendix 5 of registered CDM PoA-DD (version 17, dated 05/09/2019).

B.7.3. Other elements of monitoring plan

>>

The various aspects to be monitored according to the methodology are presented in the table below:

Aspects to be monitored according to Methodology	Applicability to the Project	Parameter to be Monitored (YES/NO/NA)
Monitoring shall consist of checking of all appliances or a representative sample thereof, at least once every two years (biennial) to ensure that they are still operating or are replaced by an equivalent in service appliance.	Emission reductions is directly proportional to the number of appliances (digesters in case of the project) still performing. So this needs to be monitored.	Yes (based on operation reports carried out at least biennial)
In order to assess the leakages, monitoring shall include data on the amount of woody biomass saved under the project activity that is used by non-project households/users (who previously used renewable energy sources). Other data on nonrenewable woody biomass use required for leakage assessment shall also be collected	The methodology allows the use of a default factor of 0.95 to account for leakage. So this will not be monitored in the project.	No (Instead a default factor of 0.95 shall be used)
Monitoring should confirm the displacement or substitution of the non-renewable woody biomass at each location.	This shall be ensured by monitoring the number of appliances (digesters in case of the project) still performing	Yes (based on the performance reports carried out at least biennial, e.g. BUS, and in addition to eligibility criteria that also confirm use of NRB)
Sustainable development parameters and safeguarding principles to be assessed as per PoA DD	This shall be ensured by different parameters listed in B.7.2 above	Yes (Biogas User Survey Report conducted at least Biennial following the applicable sampling guideline for PoA)

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of VPA

>>

09/04/2016

C.1.2. Expected operational lifetime of VPA

>>

20 years

C.2. Crediting period of project

C.2.1. Start date of crediting period

>>

15/05/2024

C.2.2. Total length of crediting period

>>

7 years. This pertains to the length of the second crediting period

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1. Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in [Appendix 1](#), ongoing monitoring is summarised below.

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle 7.1 Emission	The project replaces the use of non-renewable biomass and hence this will be calculated during the project period through monitoring of different parameters in the VPA DD.
Principle 9.8 Food	Though the project activity and its boundary does not involve the food production, crop regime alteration or export or economic incentives, the bi-product of the project (Bio-slurry) application potentially increases the productivity. This will be monitored through perception survey whether the users perceived the increase in productivity.

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?

The project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy. As the Gold Standard Gender Policy recognizes that gender relations, roles and responsibilities exercise important influence on women and men's access to and control over natural resources and the goods and services they provide, the project has given access to biogas to both men and women without inequality. Since the cooking and household chores in Nepal basically comes under the women's activity, the biogas promoted under the CPAs contributes multiple benefit to the women and children. The project meaningfully address attribution, generate livelihood benefits and promote approaches that enable women and men to more equitably contribute to and benefit from the project. The Biogas User Survey is being done continuously for the Biogas PoA and from the regular survey, it is evidenced that the time for firewood collection and cooking has been reduced and is perceived by the users incase of men, women and children. The time saving that they achieved from the biogas is being used for other income generating activities and social activities. The health of the users especially women have been improved caused by air pollution. It basically offers the drudgery reduction of women and children and also provides the leverage to the women to involve in economic activities and other social participation utilizing the time saved for the firewood collection. Considering the size of the technology and the service that it offers, it has potential to enable women economically which help reduce discrimination against women rather than deepening it.

Question 2 - Explain how the project aligns with existing country policies, strategies and best practices

Being a focal government entity to promote renewable energy in Nepal, the PD follows Renewable Energy Subsidy Policy 2016¹³ which has provisioned the additional support to construct Biogas for “targeted beneficiary group (women-led households with dependent children, earthquake victims from earthquake affected districts, endangered indigenous community identified by GoN and Dalit). PD has also developed the GESI Policy in 2018¹⁴ which is given in Nepali language and it focuses on improving livelihood assets and capacities of women, poor and the excluded so that they can have access to different energy source. In addition, as per the Gender Equality and Social Inclusion Policy of AEPC it has mentioned that it will enhance their voice so that they can recognize their rights and influence decisions affecting them. So in every stakeholder consultation of renewable energy projects, it has to be ensure the women’s participation and their comments are addressed.

The rural energy policy 2006¹⁵ of Nepal also ensures the implementation of the special programmes of promotional activities that emphasize on access to rural energy and role of rural energy in sustainable development, poverty reduction and positive impacts on women and children. As the rural energy is directly linked to activities traditionally carried out by the women in Nepal, the policy also emphasizes on the implementation of such technologies considering it as an integral part of the women’s enabling activities. So, all the technologies are implemented under those national policies (rural energy policy and subsidy policy).

¹³ [https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20\(English\).pdf](https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20(English).pdf)

¹⁴ <https://www.aepc.gov.np/uploads/docs/l-uu-l-1542168651.pdf>

¹⁵ [https://www.aepc.gov.np/uploads/docs/2018-06-24_Rural%20Energy%20Policy,%202006%20\(English\).pdf](https://www.aepc.gov.np/uploads/docs/2018-06-24_Rural%20Energy%20Policy,%202006%20(English).pdf)

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?

Since the project is already implemented and proposed for crediting period renewal, and is and delivering its benefits to the users. Further assessment is not required. However, PD will welcome the feedback from the GS.

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?

Since the project is already implemented and proposed for crediting period renewal, and is and delivering its benefits to the users. Further assessment is not required. However, PD will welcome the feedback from the GS.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

E.1. Summary of stakeholder mitigation measures

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Please refer to the section D.14 of the CDM-SSC-PoA-DD for the stakeholder consultation as per CDM requirement. The LSC for GS was conducted on PoA level. The detail of it is given in section E of the PoA Passport.

For the inclusion of VPA-9, stakeholder feedback round was started on 6th May 2019. A public notice was published in AEPC's website to provide the feedback on Local Stakeholder Consultation Report, CPA-DDs for VPA-8, along with VPA-9. Similarly, the notice and the related documents were also published in atmosfair gGmbH's website as well. For follow-up, an e-mail was also sent to the related stakeholders to provide the feedback on the documents.

During the stakeholder feedback round which was started on 6th May 2019 for two months, no comments/feedbacks were received for CPA-9.

E.2. Final continuous input / grievance mechanism

METHOD

INCLUDE ALL DETAILS OF CHOSEN METHOD (S) SO THAT THEY MAY BE UNDERSTOOD AND, WHERE RELEVANT, USED BY READERS.

Continuous Input / Grievance Expression Process Book (mandatory)	Grievance Registration and continuous input: Grievance section: www.aepc.gov.np Alternative Energy Promotion Centre (AEPC) Phone +9771-4498013, 4498014 Fax : +9771-5542397, 5539392
GS Contact (mandatory)	help@goldstandard.org
Other	Nepal biogas promoters association Central Office Kathmandu: Phone: 01- 5535116 Nepal biogas promoters association regional offices: 1. Pokhara: Phone: 061-526785 2. Butwal: Phone: 071-551514 3. Itahari: Phone: 025-5817745 4. Nepalgunj: Phone: 081-528066 5. Dhangadi: Phone: 091- 527379 6. Chitwan: Phone: 056- 521749

SECTION F. Eligibility and inclusion criteria for VPAs inclusion

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The VPA is already included in the PoA and is now submitted for crediting period renewal. Hence eligibility criteria for inclusion is not applicable. However, please refer section A.1.1 Table 3 Eligibility for VPA inclusion as per PoA requirements

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Not applicable		
Would the project potentially involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project incorporates a human rights-based approach.

For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

The project involves installation of household biogas. To live in a clean and healthy environment is the fundamental right conferred to all citizens by the Constitution of Nepal. Therefore, while the project pursues to safeguard this fundamental right by availing the clean cooking solutions to the households, the fundamental right is preserved.

ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project potentially involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.

The project doesn't directly or indirectly lead to/contribute to adverse impacts on gender equality. In contrast, the project will contribute to health and well-being of women. Moreover,

the project will deploy adequate measures to foster social status of women. The project shall embrace the spirit of the Labor Regulations (1993) of Nepal. Clause 11 of the rules requires providing equal remuneration to the male and female workers without making discrimination when they are engaged in works of similar nature. For all the staffs employed by the project, principle of equal treatment shall prevail. There are no specific gender risks identified during the project design. Howsoever, if any assessment is required to frame gender risks associated with the project, the project participant ensures its full commitment to do so.

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ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any potential risks to the workers' safety and health?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk related to community health and safety.

Construction and use of Biogas in the households doesn't involve any activity that trigger safety requirements or use any explosive. The Project shall make every effort to avoid health risks of worker during construction of biogas. Emission reduction and reduction on indoor air pollution is one of the key benefits of the project for community that will improve the health of those communities.

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<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO
--	--	--

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project potentially involve or lead to:

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u>	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO

<u>NOT FOUND.</u>		
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.**ERROR! REFERENCE SOURCE NOT FOUND.**

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project potentially involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Not applicable		
Would the project potentially involve or lead to:		

ERROR! REFERENCE SOURCE NOT FOUND.	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project potentially involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above questions is "YES" or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE	- Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting	

SOURCE NOT FOUND.	from the use of their traditional knowledge and practices? ? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

ECONOMIC SAFEGUARDING PRINCIPLES

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.	Does the project allow child labor?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO

NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements. Not Applicable		
Would the project potentially involve or lead to: (NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)		
ERROR! REFERENCE SOURCE NOT FOUND.	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	absence of documented working agreements with all individual workers <i>if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	use of migrant workers? <i>if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.</i>	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	having no arrangements for basic services ¹⁶ for workers? <i>the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE	No provision of safety and health training provisions, including on the proper use and maintenance of personal	☐ YES ☒ NO

¹⁶ Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

NOT FOUND.	protective equipment conducted by competent persons and the maintenance of training records?	
ERROR! REFERENCE SOURCE NOT FOUND.	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO
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If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO
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If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	negatively impact on the catchment area? <i>If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable as it is for crediting period renewal

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? <i>If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
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NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	if answer to above question "yes" or "potentially", did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Not Applicable		
Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Forestry (for example Afforestation/Reforestation) involving GMO planting? <i>Note - Forestry projects (for example Afforestation/Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.</i>	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	the generation and management of waste materials?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	treatment, destruction, or disposal of waste material?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "Yes", does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes", does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO
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If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to question above is "yes" or "potentially", does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

The project units produces the bio-slurry that potentially displaces the chemical fertilizers. Basically due to good content of nitrogen in the fertilizer the bio-slurry is a potent replacer of the Urea.

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO

NOT FOUND.		
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES ☒ NO
If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Not Applicable		
Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not Applicable		
ERROR! REFERENCE SOURCE NOT FOUND. ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any risks to animal welfare?	
	Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Not applicable		
Would the project involve or lead to:		

<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	animal husbandry or harvesting of fish populations or other aquatic species? ¹⁷	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u>	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
<u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u> <u>NOT</u> <u>FOUND.</u> <u>ERROR!</u> <u>REFERENCE</u> <u>SOURCE</u>	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES ☐ NO ☒ NA

¹⁷ 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

NOT FOUND.		
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Not applicable		
ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.		
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Not applicable		
Would the project involve or lead to:		
ERROR! REFERENCE SOURCE NOT FOUND.	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes", does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES ☐ NO ☒ NA
ERROR! REFERENCE SOURCE NOT FOUND.	If answer to above question is "yes", is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES ☐ NO ☒ N/A
ERROR! REFERENCE SOURCE NOT FOUND.	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA

<u>NOT FOUND.</u>		
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If the answer to above question is "yes", does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES ☐ No ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES ☐ No ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not applicable

Would the project involve or lead to:

<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
<u>ERROR! REFERENCE SOURCE NOT FOUND.</u>	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

NOT FOUND.		
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If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

ERROR! REFERENCE SOURCE NOT FOUND.ERROR! REFERENCE SOURCE NOT FOUND.

ERROR! REFERENCE SOURCE NOT FOUND.	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Not Applicable

Would the project involve or lead to:

ERROR! REFERENCE SOURCE NOT FOUND.	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES ☐ POTENTIALLY ☒ NO
ERROR! REFERENCE SOURCE NOT FOUND.	risk of spreading alien species into areas in which they have not already been established?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Not Applicable

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organisation name	Alternative Energy Promotion Centre (AEPC)
Registration number with relevant authority	NA (Government Organization)
Street/P.O. Box	Mid Baneshwor, Kathmandu
Building	-
City	Kathmandu
State/Region	Bagmati
Postcode	
Country	Nepal
Telephone	+977-1-4598013
E-mail	nawa.dhakal@aepec.gov.np
Website	www.aepec.gov.np
Contact person	Nawa Raj Dhakal
Title	Executive Director
Salutation	Mr.
Last name	Dhakal
Middle name	Raj
First name	Nawa
Department	Alternative Energy Promotion Centre
Mobile	-
Direct tel.	+977-1-4598013
Personal e-mail	nawa.dhakal@aepec.gov.np

APPENDIX 3- LUF ADDITIONAL INFORMATION

Not Applicable

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

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Not Applicable

A4.2. Describe the Impacts of Design Change on the following

a. Additionality

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Not Applicable

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

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Not Applicable

c. Compliance with the monitoring plan of the applied methodology

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d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan

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Not Applicable

e. Scale of the project activity

>>

Not Applicable

f. Stakeholder consultation

>>

Not Applicable

g. Sustainable development criteria

>>

Not Applicable

h. Safeguarding Assessment

>>

Not Applicable

i. Compliance with applicable legislation

>>

Not Applicable

Revision History

Version	Date	Remarks
2.3	Dd/mm/yyyy	Editorial changes in line with V2.1 of the Safeguarding Principles and Requirements
2.2	21 June 2023	Editorial changes in line with V2.0 of the Safeguarding Principles and Requirements
2.1	14 April 2023	Integrated the design change memo as annex of the document.
2.0	4 May 2022	
1.1	7 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption