



# **Invitation to Comment on Nepal Biogas Support Programme-PoA**

Date of Notice Publication: 06/05/2019

Alternative Energy Promotion Centre (AEPC), Nepal from the support of atmosfair gmbH, Germany has completed retroactive registration of Nepal Biogas Support Programme-PoA along with its first four Component Project Activities (CPA). The PoA is originally registered with the UNFCCC CDM executive board on 31/01/2013. This is a nation-wide Programme for the dissemination of household biogas digesters in Nepal, managed by Alternative Energy Promotion Center (AEPC). Additionally, the PoA has retroactive registration under the Gold Standard including its first four CPAs, which implies a particular focus on sustainable development benefits.

The local stakeholder consultation and design consultation meeting as per Gold Standard was held on 15th August 2014 for the PoA. AEPC convey thanks to all who involved in stakeholder consultation and provided the fruitful feedback due to which AEPC succeeded in registering PoA and its first four CPAs in GS. The mission of the PoA is the dissemination of household biogas plants (maximum 20,000 biogas plants under each CPA). It also seeks to encompass other important socio-economic-environmental benefits that are an integral part of the biogas program, such as improved kitchen environment, reduction in drudgery of women, improvement of health and sanitation, and improvement in the quality of the employment etc. AEPC from the support of atmosfair gmbH is planning to include CPA-8 and CPA-9 under Gold Standard for Global Goals (GS4GG). A “Stakeholder Feedback Round” is part of the retroactive Gold Standard for Global Goals (GS4GG) inclusion process.

We hereby invite all to provide comments on two Component Project Activities (CPAs) mentioned above under Nepal Biogas Support Programme-PoA. Following documents are available in hard copy from AEPC and/or atmosfair for your review and feedback:

- Component Project Activity Design Document (CPA-DD) for CPA-8 and CPA-9
- Key Project Information for PoA, CPA-8 and CPA-9
- Local Stakeholder Consultation Report

The documents are also available in AEPC ([www.aepc.gov.np](http://www.aepc.gov.np)) and atmosfair’s website (<https://www.atmosfair.de/en/nepal-biogas>). The comments can be provided through e-mail or hardcopy to the following address/persons no later than 2 months from the date of publication.

<b>Alternative Energy Promotion Centre</b> <b>Khumaltar, Height, Lalitpur Nepal</b> Prem Kumar Pokhrel Climate and Carbon financing Expert e-mail: <a href="mailto:prem.pokhrel@aepc.gov.np">prem.pokhrel@aepc.gov.np</a> Tel: +977-1-5539390 (ext. 132)	<b>atmosfair gmbH</b> Janine Adler Manager CDM Projects e-mail: <a href="mailto:adler@atmosfair.de">adler@atmosfair.de</a> Tel: +49 (0)30 120 84 80 - 62
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## Key Project Information

### Nepal Biogas Support Programme-PoA (GS 3110, UNFCCC Ref No 9572)

#### 1. Description of PoA

The Nepal Biogas Support Programme-PoA is registered with the UNFCCC CDM executive board on 31/01/2013. Until now, there are eight CPAs included in the PoA. Nepal Biogas Support Program is a nation-wide programme for the dissemination of household biogas digesters, managed by Alternative Energy Promotion Center (AEPC). It is registered under the Clean Development Mechanism (CDM) in order to allow for the generation of carbon credits since January 31 2013. Additionally, the PoA has retroactive registration under the Gold Standard, which implies a particular focus on sustainable development benefits. The PoA and its first four CPAs were registered/included in GS. The status of CDM and GS registration and inclusion of the PoA/CPAs are given below:

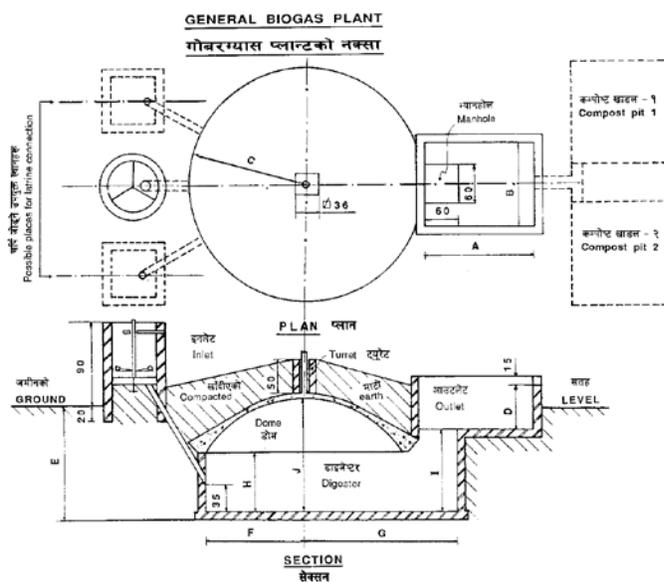
PoA/CPA	Number of Biogas Included	CDM Registration Number	CDM Registration/ Inclusion date	GS Registration Number	GS Registration Date
PoA	-	9572	31/01/2013	3110	14/08/2015
CPA-1	20,000	9572-0001	31/01/2013	3109	14/08/2015
CPA-2	19,927	9572-0002	08/05/2014	3113	14/08/2015
CPA-3	19,959	9572-0003	08/05/2014	3114	14/08/2015
CPA-4	19,970	9572-0004	08/05/2014	3116	14/08/2015
CPA-5	19,842	9572-0005	25/08/2014	3566	24/12/2018
CPA-6	18,504	9572-0006	08/07/2015	6393	24/12/2018
CPA-7	18,392	9572-0007	08/07/2015	6394	24/12/2018
CPA-8	19,445	9572-0008	01/02/2017		
CPA-9	17,304	Under inclusion in CDM			

The PoA consists in several CDM project activities (CPA) that will consist in the dissemination of approx. 20,000 household biogas digesters each; all CPAs will be implemented within the geographical boundary of Nepal. The type of the digesters included will receive the subsidies as governed by the subsidy policy and subsidy delivery mechanism of the Government of Nepal.

Large number of Nepalese households depends on firewood to fulfill their basic energy requirements related to cooking. Continuous extraction of firewood leads to deforestation and ultimately interferes with the firewood availability in future. This is the reason that 86% of the firewood used for cooking in Nepal comes from the non-renewable sources. Implementation and use of biogas digesters therefore substitutes the non-renewable biomass from the baseline. Digesters generate biogas from cow manure; the gas can be used for cooking just a LPG. On weighted average basis, each biogas digester can save



around 3.33 tons of firewood from each household which prevents around of 3 tons of carbon-dioxide equivalent attributable to the non-renewable biomass to be emitted in the atmosphere. This reduction of emission can be traded to earn revenue which helps in propagating the digester implementation further.



**Fig: Plan and Section View of Biogas Plant**



**Fig: Biogas Digester in Operation**

## 2. Responsible Parties

### **Alternative Energy Promotion Centre**

Alternative Energy Promotion Centre (AEPC) is Coordinating and Managing Entity (CME) and CPA implementer for this PoA. AEPC is a government institution to promote renewable energy in Nepal. AEPC provides subsidies to install the biogas plants in households and the biogas plants owners transfer the right on potential emission reduction/emission reduction generated to AEPC.

### **atmosfair gGmbH**

atmosfair is a German not-for-profit company providing voluntary offsets for greenhouse gas emissions e.g. from air travel by CDM Gold Standard projects. AEPC & atmosfair has the contractual agreement for the retroactive registration of the PoA and its seven CPAs at the moment. atmosfair has been supporting AEPC in retroactive inclusion of CPAs under the Gold Standard as a project participants.

## 3. Social, economic and environmental benefits and impacts

The PoA contributes towards the sustainable development on following aspects:

- i. Environmental Benefits:



- a. Prevents deforestation and forest soil degradation caused by the harvest of firewood.
  - b. Prevents the emission of Greenhouse Gases from non-renewable biomass and that attributable to the anaerobic decomposition of the cattle dung that would have been left over for decay.
  - c. The byproduct of the digestion process, bio-slurry, can be used as fertilizer which maintains the soil quality and avoids the possible soil pollution due to use of synthetic fertilizers.
  - d. Improves indoor air quality by avoiding the smoky kitchen environment due to firewood use.
- ii. Social Benefits:
- a. Reduces the drudgery in women caused due to tasks related to firewood collection and utensil cleaning and thereby saves time.
  - b. Improves sanitation by triggering the toilet construction at household level as the toilet can also be used as feeding material for the biogas digesters.
  - c. Improves the technical skills of the masons and other construction workers working in the sector.
- iii. Economic Benefits:
- a. The use of the bio-digesters at households makes the households self-reliant on the energy for cooking and thereby saves the investment for energy sources in long run.
  - b. The jobs created by the sector help in the increased economic activity locally and nationally.
  - c. The bio-slurry produced from the digestion process saves the investment required to source synthetic fertilizers.

This demonstrates that the PoA contributes positively towards sustainable development.

**For more detail information and feedback:**

<b>Alternative Energy Promotion Centre</b>  Prem Kumar Pokhrel Climate and Carbon Financing Expert e-mail: prem.pokhrel@aepc.gov.np Tel: +977-1-5539390 (ext. 132)	<b>atmosfair gGmbH</b>  Janine Adler Manager CDM Projects e-mail: adler@atmosfair.de Tel: +49 (0)30 120 84 80 - 62
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## Key Project Information

### Nepal Biogas Support Program – CPA 8: 19,445 digesters

#### Nepal Biogas Support Programme-PoA (GS 3110, UNFCCC Ref No 9572)

#### 1. Description of CPA

The Nepal Biogas Support Programme-PoA is registered with the UNFCCC CDM executive board on 31/01/2013. This is a nation-wide programme for the dissemination of household biogas digesters, managed by Alternative Energy Promotion Center (AEPC). Additionally, the PoA has retroactive registration under the Gold Standard including its first four CPAs, which implies a particular focus on sustainable development benefits.

This Component Project Activity (CPA) is part of the Nepal Biogas Support Program-Programme of Activity (PoA). This CPA includes 19,842 digesters which were implemented between 01/01/2015 and 08/04/2016. Table 1 provides an overview of the digesters according to their size and location.

**Table 1: Digesters listed in this CPA.**

Size	Hill	Terai	Mountain or Remote Hill	Total
2 m <sup>3</sup>	26	1	0	27
4 m <sup>3</sup>	1365	187	18	1570
6 m <sup>3</sup>	6927	9842	203	16,972
8 m <sup>3</sup>	223	650	3	876
Total	8541	10680	224	19445

This CPA is implemented within the geographical boundary of Nepal. The type of the digesters included received the subsidies as governed by the subsidy policy and subsidy delivery mechanism of the Government of Nepal.

Large number of Nepalese households depends on firewood to fulfill their basic energy requirements related to cooking. Continuous extraction of firewood leads to deforestation and ultimately interferes with the firewood availability in future. This is the reason that 86% of the firewood used for cooking in Nepal comes from the non-renewable sources. Implementation and use of biogas digesters therefore substitutes the non-renewable biomass from the baseline. Digesters generate biogas from cow manure; the gas can be used for cooking just as LPG. On weighted average basis, each biogas digester can save around 3.33 tons of firewood from each household which prevents around of 3 tons of carbon-dioxide equivalent attributable to the non-renewable biomass to be emitted in the atmosphere. This reduction of emission can be traded to earn revenue which helps in propagating the digester implementation

further.

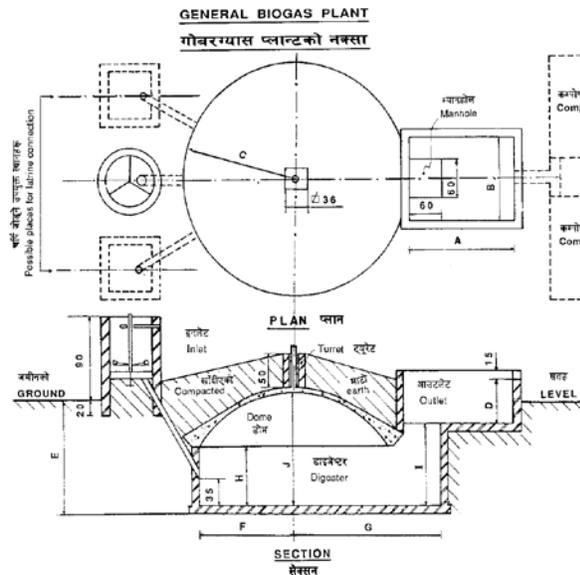


Fig: Plan and Section View of Biogas Plant



Fig: Biogas Digester in Operation

## 2. Responsible Parties

### **Alternative Energy Promotion Centre**

Alternative Energy Promotion Centre (AEPC) is Coordinating and Managing Entity (CME) and CPA implementer for this PoA. AEPC is a government institution to promote renewable energy in Nepal. AEPC provides subsidies to install the biogas plants in households and the biogas plants owners transfer the right on potential emission reduction/emission reduction generated to AEPC.

### **atmosfair gGmbH**

atmosfair is a German not-for-profit company providing voluntary offsets for greenhouse gas emissions e.g. from air travel by CDM Gold Standard projects. AEPC & atmosfair has the contractual agreement for the retroactive registration of the PoA and its seven CPAs at the moment. atmosfair has been supporting AEPC in retroactive inclusion of CPAs under the Gold Standard as a project participant.

## 3. Social, economic and environmental benefits and impacts

The PoA contributes towards the sustainable development on following aspects:

### i. Environmental Benefits:

- Prevents deforestation and forest soil degradation caused by the harvest of firewood.
- Prevents the emission of Greenhouse Gases from non-renewable biomass and that attributable to the anaerobic decomposition of the cattle dung that would have been left over for decay.



- c. The byproduct of the digestion process, bio-slurry, can be used as fertilizer which maintains the soil quality and avoids the possible soil pollution due to use of synthetic fertilizers.
- d. Improves indoor air quality by avoiding the smoky kitchen environment due to firewood use.
- ii. Social Benefits:
  - a. Reduces the drudgery in women caused due to tasks related to firewood collection and utensil cleaning and thereby saves time.
  - b. Improves sanitation by triggering the toilet construction at household level as the toilet can also be used as feeding material for the biogas digesters.
  - c. Improves the technical skills of the masons and other construction workers working in the sector.
- iii. Economic Benefits:
  - a. The use of the bio-digesters at households makes the households self-reliant on the energy for cooking and thereby saves the investment for energy sources in long run.
  - b. The jobs created by the sector help in the increased economic activity locally and nationally.
  - c. The bio-slurry produced from the digestion process saves the investment required to source synthetic fertilizers.

This demonstrates that the CPA contributes positively towards sustainable development.

**For more detail information and feedback:**

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# Key Project Information

## Nepal Biogas Support Program – CPA 9: 17,304 digesters

### Nepal Biogas Support Programme-PoA (GS 3110, UNFCCC Ref No 9572)

#### 1. Description of CPA

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This Component Project Activity (CPA) is part of the Nepal Biogas Support Program-Programme of Activity (PoA) and being included in this 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	Hill	Terai	Mountain or Remote Hill	Total
2 m <sup>3</sup>	3	3	0	6
4 m <sup>3</sup>	988	110	13	1111
6 m <sup>3</sup>	7638	7713	567	15918
8 m <sup>3</sup>	99	155	5	259
10 m <sup>3</sup>	2	8	0	10
<b>Total</b>	<b>8730</b>	<b>7989</b>	<b>585</b>	<b>17304</b>

This CPA is implemented within the geographical boundary of Nepal. The type of the digesters included received the subsidies as governed by the subsidy policy and subsidy delivery mechanism of the Government of Nepal.

Large number of Nepalese households depends on firewood to fulfill their basic energy requirements related to cooking. Continuous extraction of firewood leads to deforestation and ultimately interferes with the firewood availability in future. This is the reason that 86% of the firewood used for cooking in Nepal comes from the non-renewable sources. Implementation and use of biogas digesters therefore substitutes the non-renewable biomass from the baseline. Digesters generate biogas from cow manure; the gas can be used for cooking just as LPG. On weighted average basis, each biogas digester can save around 3.33 tons of firewood from each household which prevents around of 3 tons of carbon-dioxide equivalent attributable to the non-renewable biomass to be emitted in the atmosphere. This reduction



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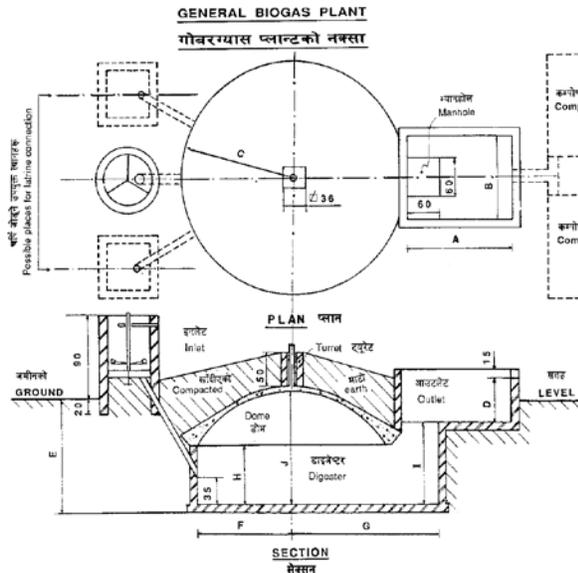


Fig: Plan and Section View of Biogas Plant



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  - c. The bio-slurry produced from the digestion process saves the investment required to source synthetic fertilizers.

This demonstrates that the CPA contributes positively towards sustainable development.

**For more detail information and feedback:**

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