

Gold Standard for the Global Goals
Stakeholder Consultation Report

National Biodigester Programme (NBP) of Cambodia

GS751



Version 1 – July 2017

SECTION A. PROJECT DESCRIPTION

A. 1. Title of the project

Title: National Biodigester Programme

Date: ~~19/10/2018~~ 22/02/19

Version no: 1. ~~23~~

A. 2. Project description and current status

In January 2006, the Ministry of Agriculture, Forestry and Fisheries (MAFF) and SNV agreed on the joint development of a National Biodigester Programme (NBP) as a way to create an indigenous, sustainable energy source in Cambodia and to utilize the potential of biogas in the country.

Through franchised micro enterprises biodigester are constructed at farmers with sufficient livestock. Farmer's cover most of the investment cost but for biodigesters smaller than 8 m³ an investment subsidy is provided to make the digester more accessible to the poorer segments of the rural population.

In a biodigester manure is digested under anaerobic conditions producing biogas and bio-slurry (the effluent). Biogas is captured in an integrated gasholder in the biodigester and stored before usage. Biogas is a clean and renewable fuel and eliminates household air pollution. Bio-slurry, a potent organic fertilizer, is stored for the next cropping season or applied directly and improves agricultural yields.

The implementation of NBP started with the construction of the first digester on 13 March 2006. As of 31/12/2017, 26,500 digesters have been built.

Provide brief technical description of the project with information on key dates like start of implementation or construction, date of commissioning etc. Also provide information on current status of the project.

SECTION B. DESIGN OF STAKEHOLDER CONSULTATION PROCESS

B. 1. Design of physical meeting(s)

i. Agenda

Time	Agenda	By
7:00 - 7:30	Registration	Khim Vuthy
7:30 - 7:40	Introduce representatives, participants and workshop chairperson	Khim Vuthy
7:40 - 8:00	Welcome remarks and debriefing progress on agriculture sector in Takeo	Takeo PD AFF Director
8:00 - 8:15	Welcome remarks by H.E Takeo Governor	Takeo Governor
8:15 - 8:30	Opening speech by Secretary of state of the Ministry of Agriculture Forestry and Fisheries	H.E Om Kimsir
8:30-8:40	Group photos and coffee break	ALL
8:40-8:55	Explanation of the project	Seng Sopheap

	• NBP Cambodia • Voluntary Gold Standard • Benefit of Biodigester • Main achievements up to date	
8:55-9:00	Questions and clarifications about project explanation	All
9:00-10:00	Sustainable development exercise • Explanation of SD impacts • Blind Sustainable development exercise – positive and negative impact and mitigation measures	Him Sambath
10:00-10: 50	Discussion in input and Grievance Mechanism • Input and feedback mechanism ○ Facebook ○ E-mail ○ Internet website ○ Telephone hotline ○ Other • Suggestions of participants on what is the best method	Seng Sopheap
10:50-11:00	Questions and answers	All
11:00-11:10	Filling in feedback forms	Khim Vuthy
11:10-11:25	Closing of the meeting by Mr. Meng Sothy, Takeo PBPO Director	Meng Sothy
11:25-11:30	National Anthem Closing of the meeting	ALL

ii.Key project information

NBP Biodigester Local Stakeholder Consultation Workshop

Consultation on the biodigester programme and its impacts for the renewal of the carbon crediting period

Non-technical summary

The National Biodigester Programme

NBP is a national programme of the Ministry of Agriculture, Forestry and Fisheries, granting financial support from Dutch, Germany, Czech Government, EU and Sweden via CCCA, Korea via CCC, Polarstern Gmh and carbon finance. Within 12 years from March 2006- Jan 2018, NBP has constructed over 26,500 biodigesters in 16 provinces, namely, Kampong Cham, Kandal, Svay Rieng, Takeo, Kampong Speu, Kampong Chhnang, Kampot, Kep, Preah Sihanouk, Prey Veng, Siem Reap, Pursat, Battambang, Tboung Khmum, Phnom Penh and Kampong Thom.

Programme objectives

NBP's overall objective is to establish a permanent domestic biodigester sector on a market driven approach for a sustainable energy in Cambodia. The objectives of the National Biodigester Programme contributing to its overall objective in the third carbon crediting period are:

1. To increase the number of family sized, quality biodigesters with the total 8,600 biodigesters in the period 2019-2026 in selected provinces
2. To ensure the continued operation of all biodigesters installed under the biodigester programme;
3. To maximise the benefits of the operated biodigesters, in particular the optimum use of digester effluent;
4. Technical and promotional capacity development of the stakeholders within the NBP for wide scale deployment of biodigester technology in Cambodia. This objective will particularly focus on the development of a capable and viable private sector responsible for marketing, construction and after-sales service of biodigesters.

Target group and benefits

NBP targets farmers that have at least 15 kg/day cow, buffalo or pig manure available for biodigester feeding. In a biodigester manure is partly converted into a clean renewable cooking fuel and lighting fuel, biogas, and the remainder is a potent and safe organic fertilizer (bio-slurry). Regular surveys among the biodigester users have shown that the users highly appreciate the benefits of biodigesters: the availability of gas makes their cooking and lighting easier; the household members don't need to spend their time or/ and money on the collecting firewood; women and children aren't exposed to harmful smoke from burning firewood; and farmers receive a valuable and effective fertilizer which enables them to increase crop yields. The total technical potential for domestic biodigesters, with a minimum feeding of 15 kg/day is estimated to be over 500,000 households.

Applied Technology

The biodigester is a modified fixed dome Indian Deenbandhu digester and is named the 'farmer's friend' model. Depending on energy need, cattle owned by the users, water availability and preferences of the future owner the fixed dome biodigester can have a volume between 2 and 15 m³, see the next table:

Table 1: Technical specifications of the biodigester models

Plant size	2 m ³	3 m ³	4 m ³	6 m ³	8 m ³	10 m ³	15 m ³
Estimated cost (USD)	350	420	520	580	750	850	1150
Subsidy	150	150	150	150	0	0	0
Dung requirements (kg/day)	15-20	20-30	20-40	40-60	60-80	80-100	100-150
Estimated gas production (m ³ /day)	0.6-0.8	0.8-1.2	0.8-1.6	1.6-2.4	2.4-3.2	3.2-4.0	4.0-6.0
Estimated fuel wood saving (kg/day)	3-4	4-6	4-8	8-12	12-16	16-20	20-30

Hereunder a sketch is shown of the biodigester, its operation, inputs and outputs.

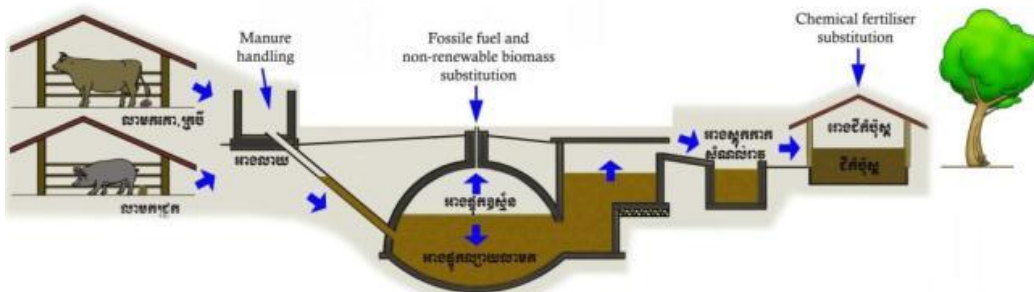


Figure 1: Sketch of a biodigester system

Implementation

By the end of 2017 NBP is active in 15 provinces with the highest domestic biodigester potential. The national programme office is located within the General Directorate of Animal Health and Production. The ownership for programme implementation is decentralized to provincial level with Departments of Agriculture hosting the provincial programme offices in 14 provinces by June 2018.

The programme has trained over 149 PBPO staff and provides regular on-job training and strengthening the capacity of PBPO working in the sector.

The marketing, construction and after-sales services activities are executed by 52 biodigester construction companies and over 799 masons are trained and certified in biodigester construction. Special micro credit for biodigester construction is provided by three national micro-finance organisations, AMRET, PRASAC and HKL. Currently some 37% of all plants are financed through this credit scheme.

Carbon finance

NBP is registered as carbon project under the Voluntary Gold Standard (VGS). Through this project NBP can earn income from the sale of verified emission reductions (VERs). One of the requirements is, next to reducing greenhouse gas emissions, contribution to sustainable development and consultation with local stakeholders. For that reason, this local stakeholder workshop is being organized. Feedback and comments gathered from the meeting will help NBP to minimize risks and maximize benefits of the biodigester dissemination.

More information

For more information please call +855(0) 78 724 111 or visit: www.nbp.org.kh.

iii. Invitation tracking table

Number of participants	Category code	Organization (if relevant)	Name of invitee	Means of invitation	Date of invitation	Confirmation received Y/N
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1	A	Plant Farmer	Sun Ravy	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Khun March	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Koy Sarath	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Soun Thou	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Ros Kandavy	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Keat Bunthorn	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Teouk Savet	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Bun Chanthy	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Toun Kimly	Letter-TKO	08-02-18	Yes
1	A	Plant Farmer	Moul Yim	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Cheng Leng	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Chheng Sokleng	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Long Sourn	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Leng Ly	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Nop Touch	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Eam Chim	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Toun Chhoun	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Bos Thy	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Touch Tim	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Douch Sokleng	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Yin Saran	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Chin Saoun	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Long Pheav	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Lor Sopheap	Letter-TKO	08-02-18	Yes
1	A	Potentail Farmer	Lo Sreynak	Letter-TKO	08-02-18	Yes
1	A	PBPO's BCA	Thorng Phea	Letter-TKO	08-02-18	Yes
1	A	PBPO's BCA	Nop Vanna	Letter-TKO	08-02-18	Yes
1	A	PBPO's BCA	Em Bunthy	Letter-TKO	08-02-18	Yes
1	A	CEW	Chab Sunleang	Letter-TKO	08-02-18	Yes
1	A	CEW	Ngoung Van	Letter-TKO	08-02-18	Yes
1	A	CEW	Net Henge	Letter-TKO	08-02-18	Yes
1	A	CEW	Prum Linda	Letter-TKO	08-02-18	Yes
1	A	CEW	San Chanavy	Letter-	08-02-18	Yes

				TKO		
1	B	PBPO Director	Meng Sothy	Letter-TKO	08-02-18	Yes
1	B	PBPO Admin.	Seng Meng	Letter-TKO	08-02-18	Yes
1	B	PBPO Coord.	Chheng Dara	Letter-TKO	08-02-18	Yes
1	B	TKO-Governor	Ly Savet	Letter-TKO	08-02-18	Yes
1	B	TKO-PDAFF	Nhip Sroun	Letter-TKO	08-02-18	Yes
1	B	PBPO technical supervisor	Nhil Sithourn	Letter-TKO	08-02-18	Yes
1	B	PBPO technical supervisor	Kheang Vanthy	Letter-TKO	08-02-18	Yes
1	B	PBPO technical supervisor	Ros Nhor	Letter-TKO	08-02-18	Yes
1	B	PBPO's mason	Pech Sear	Letter-TKO	08-02-18	Yes
1	B	PBPO's mason	Chheas Sambo	Letter-TKO	08-02-18	Yes
1	B	PBPO's mason	Leang Saoly	Letter-TKO	08-02-18	Yes
1	B	PBPO's mason	Khout Try	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. of Mines and energy	Mom Phorn	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. Women's Affairs	YimTheary	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. of Environment	Psork Rithy	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. of Education Youth and Sports	Hen Hourn	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. of Health	Leam Krean	Letter-TKO	08-02-18	Yes
1	B	Provincial Dept. of Rural Development	Vorng Sambath	Letter-TKO	08-02-18	Yes
1	B	Local Authority	Nop Samnang	Letter-TKO	08-02-18	Yes
1	B	Local Authority	Vorng Sokunthea	Letter-TKO	08-02-18	Yes
1	B	Local Authority	Nem Hak	Letter-TKO	08-02-18	Yes
1	B	Local Authority	Sak Vorn	Letter-TKO	08-02-18	Yes
1	B	Local Authority	Sim Sokhon	Letter-TKO	08-02-18	Yes
1	B	District Agriculture Office	Ounn Touch	Letter-TKO	08-02-18	Yes
1	B	District Agriculture Office	Sak Savorn	Letter-TKO	08-02-18	Yes
1	B	TKO-SRET team	Pen Vuth	Letter-TKO	08-02-18	Yes
1	B	TKO-SRET team	Chhay Saret	Letter-TKO	08-02-18	Yes
1	B	TKO-SRET team	Kep Sokorn	Letter-TKO	08-02-18	Yes
1	B	TKO-ASPIRE team	Koy Sokhom	Letter-TKO	08-02-18	Yes
1	B	TKO-ASPIRE team	Kong Mourng	Letter-TKO	08-02-18	Yes

1	B	TKO-ASPIRE team	Sor Sam	Letter-TKO	08-02-18	Yes
1	D	MFIs-ACLEDA	Teng Rithy	Letter-TKO	08-02-18	Yes
1	D	MFI-PRASAC	Branch Manager-Doun Keo, TKO	Letter-TKO	08-02-18	Yes
1	D	MFI-HKL	Thorn Bunthourn	Letter-TKO	08-02-18	Yes
1	D	MFI-AMRET	Dy Choeun	Letter-TKO	08-02-18	Yes
1	C	MoE	Mr. Sum Thy	Letter-NBP	24/07/2018	Yes
1	C	MAFF-GDAH	H.E Sen Sovann	Letter-NBP	24/07/2018	Yes-7/8/18
1	C	MAFF-SRET	Dr. Sar Chetra	Email-NBP	24/07/2018	Yes-25/07/18
1	C	MAFF-SRET	Mr. War Samnang	Email-NBP	24/07/2018	Yes-25/07/18
1	C	MAFF-SRET	Mr. Seng Tuy	Email-NBP	24/07/2018	Yes-25/07/18
1	C	MAFF-SRET	Ms. Hak Chanthavy	Email-NBP	24/07/2018	Yes-25/07/18
1	C	NBP SC	H.E Om Kimsir	Letter-NBP	24/07/2018	Yes
1	C	NBP SC Assistant	Mr. Bun Radet	Letter-NBP	24/07/2018	Yes
1	C	NBP SC	H.E Kao Phal	Letter-NBP	08-Jun-18	Yes- 07/08/18
1	C	NBP SC Assistant	Mr. Sok Praseth	Letter-NBP	08-Jun-18	Yes- 07/08/18
1	C	NBP SC Assistant	Mr. Sokhum	Letter-NBP	08-Jun-18	Yes- 07/08/18
1	C	NBP SC	H.E Om Kimsir	Letter-NBP	24/07/2018	Yes
1	D	FAEC (Federation of Farmers Associations Promoting Family Agriculture Enterprise in Cambodia)	Mr. Chan Sothea	Email-NBP	17/07/2018	Yes
1	D	CIRD (Cambodian Institute for Research and Rural Development)	Mr. Prak Sereyvath	Email-NBP	17-Jul-18	Yes-23/07/18
1	D	ADG	Mr. Chhay Sothet	Email-NBP	17/07/2018	Yes-20/07/18
1	D	WVC (World Vision Cambodia)	Mr. Nem Chheco	Email-NBP	17/07/2018	Yes-25/07/18
1	D	ALBA	Mr. Sourn Vichet	Email-NBP	17/07/2018	Yes
1	D	IDE	Mr. Hout Long	Email-NBP	17/07/2018	Yes
1	D	RACHANA	Mr. Um Samoeurn	Email-NBP	17/07/2018	Yes
1	D	PIN	Mr. Kep Ratana	Email-NBP	25/07/2018	No-26/7/18
1	D	SNV	Dennis Barbican	Email-Eric	18-Jul-18	No- 26/7/18
1	D	GERES	Charlotte Nivolette	Email-Eric	18-Jul-18	Yes - 23/7/18
1	D	ATEC	Ben Jeffreys	Email-Eric	18-Jul-18	Yes-18/7/18

1	D	Nexus- Carbon 4 development	Claire Dufour	Email-Eric	18-Jul-18	01/08/18 Mr Vibol will attend
1	D	GIZ Cambodia	guenter wessel	Email-Eric	25-Jul-18	Yes-27/7/18, Mr. Phat Phalit, will attend
1	D	WWF Cambodia	Bella Rocher	Email-Eric	18-Jul-18	No reply
1	D	Patrick Kooijmen-consultant	Patck Kooijman	Email-Eric	25-Jul-18	No-26/7/18
1	E	Gold Standard Foundation	Annyta Luo	Email-Eric	16-Jul-18	No-23/7/18
1	F	ATA Thailand	Chalerm Sri Dhamabutra or Poonsae Suanmuang	N/A	N/A - organisation seems not to exist anymore	
1	F	REI Thailand	Ms. Permpibul	N/A	N/A - organisation seems not to exist anymore	
1	F	Save the earth Cambodia	Akhteruzzaman Sano	Email-Eric	16-Jul-18	No reply
99						

In total 99 people were invited by email, telephone or letter.

The Stakeholder meetings were organized with the following objectives:

- The strategy chosen aimed at reaching the maximum number of people with an interest in the programme. Stakeholders were invited through various means: Billboards, announcements on the, newspaper advertisements, announcement on the NBP website, announcement of facebook, by email, by letter, invitations in person.
- The workshop was held at Takeo town which is centrally located in the area where most digesters are built. Takeo was also chosen because during the last LSCW, which was held in Krakor, Pursat, another area of the programme was covered.

Participants:

- At National Level: The participants invited present a cross-section of the main organizations which have a common ground with the NBP activities. For instance, NGO's working with farmers, GERES, an international NGO working in the field of the environment, WWF, a Gold Standard supporter NGO, and so on.
- At provincial level, the participant invited consisted of a representation of organizations which are directly or indirectly affected by the project. This include government departments involved in agriculture/livestock, local NGOs, private sector companies, local masons, BCA (Biodigester Construction Agencies), key community leaders, farmers.
- At village level, farmers with and without a biodigester were invited for a focussed direct interaction with the potential beneficiaries. If requested, the meeting would continue face to face for a direct interaction with the farmer and the representative of the PBPO (Provincial Biodigester Programme Office).
- Representation: A proper mix of participants was ensured by ensuring that all the category codes that the GS distinguishes were invited. The PBPO was instructed to ensure that there was a good gender balance of the farmers invited.

- Race and ethnicity are not relevant as the Cambodia population is quite homogeneous, especially in the targeted provinces by NBP.

Facebook is one of the most important sources of information. For that reason, a video message was made which was distributed through various channels.

iv. Text of individual invitations

Dear [NAME]

In cooperation with the Provincial Department of Agriculture Forestry and Fisheries (PDAFF) of Takeo province, the National Biogas Program will organize a Local Stakeholder Consultation Workshop for its Voluntary Gold Standard carbon project. The workshop will be held on 8 August 2018 in Snor village, Rong Khong district, 110, Krong Doun Kaev, Daun Keo Town, Takeo, Cambodia

The aim of this consultation is to inform stakeholders about the project and to discuss possible impacts on local communities, sustainable development and concerns will be solicited. The overall goal is to improve the project design based on stakeholder comments, to increase local ownership and to mitigate any possible negative impacts.

On behalf of NBP, I cordially invite you to attend this workshop. If you intend to participate, please confirm your attendance before the 2nd of August. Please note that the workshop language is Khmer and that attendees should cover their own expenses.

More information about the program you can find in the invitation at the bottom of this email, the attached non-technical summary on NBP and online: www.nbp.org.kh

With kind regards,

[NAME]

[Position at NBP]

NBP Biogas Local Stakeholder Consultation Workshop

8 August 2018, Provincial Department of Agriculture Forestry and Fisheries (PDAFF),

National Biogas Programme (NBP) of Cambodia cordially invites **farmers, stakeholders, local NGOs, environmental authorities and interested public** to participate in the Local Stakeholder Consultation workshop. The objective of the workshop is to inform stakeholders about the biogas project and to discuss the impact that the project may have on them and sustainable development. The workshop will be held on **8 August 2018 from 7:30 AM to 12 AM**, at the Provincial Department of Agriculture Forestry and Fisheries (PDAFF), Snor village, Rong Khong district, 110, Krong Doun Kaev, Daun Keo Town, Takeo, Cambodia

NBP is a national programme of Ministry of Agriculture, Forestry and Fisheries (MAFF). The overall objective of programme is the establishment of a permanent domestic biogas sector on a commercial, market oriented basis for the dissemination of biogas as an indigenous, sustainable energy source in selected provinces of Cambodia. From March 2006 – December 2017, NBP has built more than 26,500 units in 14 provinces benefiting over 140,000 rural farmers with access to biogas for cooking, lighting as well as biogas as quality organic fertilizer.

For more information please call 078 724 111 or visit: www.nbp.org.kh

If you are interested, please confirm on your participation via the above contact number not later than 2 August 2018

Enclosed: Non-technical summary of NBP

v. Text of public invitations

NBP Biodigester Local Stakeholder Consultation Workshop

8 August 2018, Provincial Department of Agriculture Forestry and Fisheries (PDAFF),

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For more information please call 078 724 111 or visit: www.nbp.org.kh

Newspaper

On the 1st and the 4th of August an advertisement was placed in the largest Cambodian newspaper: Kohsantepheap daily newspaper. Copies of both advertisements are shown here below:

សូមគោរពអញ្ជើញចូលរួមសិក្ខាសាលា ពិគ្រោះយោបល់ជាមួយអ្នកពាក់ព័ន្ធ

កម្មវិធីជំរុញស្តីពីសហការជាមួយមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់និងនេសាទ ខេត្តតាកែវ រៀបចំសិក្ខាសាលាពិគ្រោះយោបល់ជាមួយអ្នកពាក់ព័ន្ធដែលនឹងប្រព្រឹត្តទៅ នៅថ្ងៃពុធទី៨ ខែសីហា ឆ្នាំ២០១៨ ចាប់ពីម៉ោង ៧:៣០ព្រឹក រហូតដល់ម៉ោង ១១:៣០ ថ្ងៃត្រង់ នៅមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់និងនេសាទ ខេត្តតាកែវ ភូមិស្មោរ ឃុំរការកុង ក្រុងដូនកែវ ខេត្តតាកែវ។

សិក្ខាសាលានេះ មានគោលបំណងធ្វើអោយកម្មវិធីកាន់តែប្រសើរឡើងបង្កើនភាពជាម្ចាស់ និងបន្ថយផលប៉ះពាល់របស់កម្មវិធីដែលអាចកើតមាន។

« សាធារណជនអាចចូលរួមដោយសេរី »

ព័ត៌មានបន្ថែម៖ ០៧៨ ៧២៤ ១១១

សូមគោរពអញ្ជើញចូលរួមសិក្ខាសាលា ពិគ្រោះយោបល់ជាមួយអ្នកពាក់ព័ន្ធ

កម្មវិធីជំរុញស្តីពីសហការជាមួយមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់និងនេសាទ ខេត្តតាកែវ រៀបចំសិក្ខាសាលាពិគ្រោះយោបល់ជាមួយអ្នកពាក់ព័ន្ធដែលនឹងប្រព្រឹត្តទៅ នៅថ្ងៃពុធទី៨ ខែសីហា ឆ្នាំ២០១៨ ចាប់ពីម៉ោង ៧:៣០ព្រឹក រហូតដល់ម៉ោង ១១:៣០ ថ្ងៃត្រង់ នៅមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់និងនេសាទ ខេត្តតាកែវ ភូមិស្មោរ ឃុំរការកុង ក្រុងដូនកែវ ខេត្តតាកែវ។

សិក្ខាសាលានេះ មានគោលបំណងធ្វើអោយកម្មវិធីកាន់តែប្រសើរឡើងបង្កើនភាពជាម្ចាស់ និងបន្ថយផលប៉ះពាល់របស់កម្មវិធីដែលអាចកើតមាន។

« សាធារណជនអាចចូលរួមដោយសេរី »

ព័ត៌មានបន្ថែម៖ ០៧៨ ៧២៤ ១១១

Banners



Figure 2: Announcement banner – Please join our workshop

Five banners were printed and put at frequent visited places, see below

#	Photo	Location
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1.		ភូមិព្រៃទទឹង ឃុំសំរោង ស្រុកសំរោង តាកែវ ។ នៅមុខការិយាល័យកសិកម្មស្រុក សំរោង Prey Torteng Village, Samrong Commune, Samrong District, Takeo Province. In front of Samrong district agricultural office
2		ភូមិទួលចារ ឃុំសំរោង ស្រុកសំរោង តាកែវ ។ នៅផ្លូវជាតិលេខ០២ តំបន់ប្រជុំជន មុខ ការិយាល័យកងរាជអាវុធហាត់ស្រុកសំរោង Toul Chor village, Samrong commune, Samrong district, Takeo province, Along National Road # 02, urban area, In front of Samrong Military Police Office
3		ភូមិក្រាំងព្រៃង ឃុំសឹង ស្រុកសំរោង តាកែវ ។ មុខសាលាឃុំសឹង Kraing Traeng Village, Sung Commune, Samrong District, Takeo Province. In front of Sung commune office
4		សង្កាត់ដូនកែវ ក្រុងដូនកែវ តាកែវ។ នៅ មុខមន្ទីរបរិស្ថានខេត្ត Sangkat Daun Keo, Daun Keo Town, Takeo Province. In front of provincial environment department

5		សង្កាត់ដូនកែវ ក្រុងដូនកែវ តាកែវ។ នៅ មុខមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់និង នេសាទ ខេត្ត។ Sangkat Daun Keo, Daun Keo Town, Takeo Province. In front of Provincial Department of Agriculture, Forestry and Fisheries
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Posters



ស្ថាប័នស្រាវជ្រាវ និងបង្កើនផលិតផលកសិកម្ម



ពិធីប្រារព្ធនៃការបង្កើនផលិតផលកសិកម្ម

កម្មវិធីឱ្យជីវឧស្ស័នជាតិសហការជាមួយមន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តតាកែវ រៀបចំសិក្ខាសាលាពិគ្រោះយោបល់ជាមួយអ្នកពាក់ព័ន្ធដែលនឹងប្រព្រឹត្តទៅនៅ ថ្ងៃពុធ ទី៨ ខែ សីហា ឆ្នាំ ២០១៨ ចាប់ពីម៉ោង ៧:៣០ព្រឹក រហូតដល់ម៉ោង ១១:៣០ ថ្ងៃត្រង់ នៅមន្ទីរកសិកម្មរុក្ខាប្រមាញ់ និងនេសាទខេត្តតាកែវ ភូមិស្មោរ ឃុំការកុង ក្រុងដូនកែវ។ សិក្ខាសាលានេះមានគោលបំណងធ្វើអោយកម្មវិធីកាន់តែប្រសើរឡើង បង្កើនភាពជាម្ចាស់ និងបន្ថយផលប៉ះពាល់របស់កម្មវិធីដែលអាចកើតមាន។

“សាធារណជនមានចំណាប់អារម្មណ៍អាចចូលរួមដោយសេរី”

ព័ត៌មានបន្ថែម៖ ០៧៨ ៧២៤ ១១១



Figure 3: Poster with invitation text that was distributed at various public places

In total 50 posters were put on the walls of frequented places by the local stakeholders, see the next table:

Location	Number
School	5
Along National Road #2 (PNH-TKO)	10
Commune Office	12
District Office	10
Garment Factory	5
Health Centre	4
Agriculture District Office	4

The next table show a selection of the locations where the posters were put

#	Photo	Location
1.		នៅតាមផ្លូវជាតិលេខ០២ ភូមិក្រាំងអូត ឃុំសំរោង ស្រុកសំរោង ខេត្តតាកែវ Along National Road # 2, Krang Oul Village, Samrong Commune, Samrong District, Takeo Province
2		មុខសាលាឃុំសឹង ភូមិត្រពាំងត្រែង ឃុំសឹង ស្រុកសំរោង ខេត្តតាកែវ Front of Sung commune office , Krang Treng village, Sung commune, Samrong district, Takeo province
3		នៅតាមផ្លូវជាតិលេខ០២ តំបន់ប្រជុំជន ភូមិឈូកសខាងត្បូង ឃុំសឹង ស្រុកសំរោង ខេត្តតាកែវ On National Road # 2, Chhouk Sar Khang Tboundg Village, Sung Commune, Samrong District, Takeo Province

4		នៅតាមផ្លូវជាតិលេខ០២ តំបន់ប្រជុំជន ភូមិប្រសៀត ឃុំលំចង់ ស្រុកសំរោង ខេត្តតាកែវ On National Road No.2, the town area of Brasat village, Lomchang commune, Samrong district, Takeo province
5		នៅសាលាឃុំលំចង់ ភូមិលំចង់ ឃុំលំចង់ ស្រុកសំរោង ខេត្តតាកែវ At Lomchang commune office, Lomchang village, Lamchang commune, Samrong District, Takeo Province
6		ទល់មុខរោងចក្រកាត់សំលៀកបំពាក់ ភូមិប្រូង ឃុំលំចង់ ស្រុកសំរោង ខេត្តតាកែវ In front of Garment Factory, Rong Village, Lumchong Commune, Samrong District, Takeo Province
7		នៅសាលាសង្កាត់រកាកុង ក្រុងដូនកែវ ខេត្តតាកែវ At Sangkat Rokaknong, Dounkeo town, Takeo Province

8		នៅមុខវិទ្យាល័យ ជាស៊ីម តាកែវ សង្កាត់រកាក្នុង ក្រុងដូនកែវ ខេត្តតាកែវ In front of Chea Sim Takeo High School, Sangkat Rokaknong, Dounkeo District, Takeo Province
9		សាលាឃុំលាបួរ ភូមិលាបួរ ឃុំលាបួរ ស្រុកត្រាំកក់ ខេត្តតាកែវ At Leobor commune office, Leobor Village, Leobor Commune, Tram Kok District, Takeo Province
10		នៅមណ្ឌលសុខភាព អង្គតាសោម ឃុំ អង្គតាសោម ស្រុកត្រាំកក់ ខេត្តតាកែវ At Ang Tasom health center, Ang Tasom commune, Tramkok district, Takeo province
11		នៅសាលាស្រុកត្រាំកក់ ខេត្តតាកែវ At Tram Kok District, Takeo Province

12		នៅការិយាល័យកសិកម្មស្រុកត្រាំកក ខេត្តតាកែវ At the Agriculture Office of Tram Kak District, Takeo Province
13		នៅសាលាឃុំពពេល ភូមិពពេល ឃុំ ពពេល ស្រុកត្រាំកក ខេត្តតាកែវ At Pou Pel commune office, Pou Pel village, Pou Pel commune, Tram Kok district, Takeo province
14		នៅសង្កាត់រកាក្នុង ក្រុងដូនកែវ ខេត្ត តាកែវ At Sangkat Rokaknounge, Dounkeo City, Takeo Province

Online media

A video was produced to facilitate spreading the local stakeholder workshop invitation in Khmer with English subtitles. The video can be viewed here: <https://www.youtube.com/watch?v=WZO7mCWPC0U&t=3s>. This method can reach more people as there is a preference to watch videos instead of reading the invitation. In addition, the video contains a soundtrack of a song about biogas with a familiar tune of a popular song in Cambodia. All this aided spreading the message.

The video was shared through various channels such as YouTube, LinkedIn and Facebook, both through official NBP accounts and NBP staff members and their carbon advisor. Facebook is a very important, or the most important, source of information for most Cambodians. For that reason, the post with the video was boosted 3 times on Facebook with the following criteria:

Audience

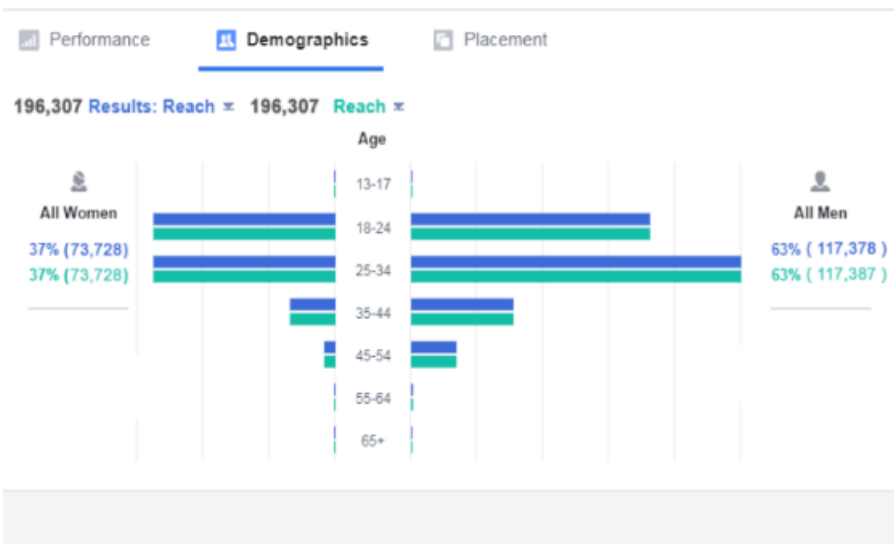
Potential Audience for this advertisement: 6,200,000 people (Facebook estimate)

- Location : Cambodia
- Age : 18-55
- Language : Khmer
- Placement : on pages : News Feed on desktop computers, Instagram Feed, Instagram Stories, Third-party Apps and Websites on mobile devices, News Feed on mobile devices, Messenger Inbox, Instream Video on mobile devices, Instream Video on desktop computers, Instant Article or Marketplace on mobile devices

Table 2: Number of people reached by age and gender

f Untitle This is a formatted r Report Period: Aug 1, 2018 - Aug 6, 2018									
Age	Reach	Impressions	Frequency	Result Type	Results	Link Clicks	Reporting Starts	Reporting Ends	
18-24	63536	55836	1.02	Reach	63536.00	215.00	2018-08-01	2018-08-06	
25-34	77040	107171	1.00	Reach	77040.00	266.00	2018-08-01	2018-08-06	
35-44	28275	28275	1.00	Reach	28275.00	52.00	2018-08-01	2018-08-06	
45-54	17168	8381	1.03	Reach	17168.00	13.00	2018-08-01	2018-08-06	
55-64	10288	405	1.41	Reach	10288.00	1.00	2018-08-01	2018-08-06	
	196307	200068	1.010730668			547	2018-08-01	2018-08-06	

Gender	Reach	Impressions	Frequency	Result Type	Results	Link Clicks	Reporting Starts	Reporting Ends	
unknown	5192	5216	1.13	Reach	5192.00	1.00	2018-08-01	2018-08-06	
female	73728	62862	1.04	Reach	73728.00	154.00	2018-08-01	2018-08-06	
male	117387	131990	1.00	Reach	117387.00	392.00	2018-08-01	2018-08-06	
	196307	200068	1.010730668			547	2018-08-01	2018-08-06	



Over 196,307 Cambodians have been reached (as 7/7/2018), of which 37% female and 63% male. The gender balance is skewed towards males which could not be foreseen nor explained. Nevertheless, over 73,728 females were reached which is a very large number.

The table below shows the video message as posted on Facebook and on the LinkedIn page of the carbon advisor:

NBP Facebook	LinkedIn
	
Over 197k views (07-08-2018)	1522 views (07/08/2018)

B. 2. Description of other consultation methods used

>> If individuals and/ or entities (e.g. NGOs) are unable to attend the physical meeting, please discuss other methods that were used to solicit their feedback/ comments (e.g. questionnaires, phone calls, interviews).

No other methods were employed. Stakeholders however have the opportunity to contact NBP with any concerns they have. Since CPI, concerns/feedback of stakeholders was reported in the monitoring reports. For CPIII, the grievance mechanism will be implemented which will improve the recording of stakeholder feedback and comments.

SECTION C. CONSULTATION PROCESS

C. 1. Participants' in physical meeting(s)

i. List of participants

>> Attach original participants' list as Annex 1.

See Annex I

In total 101 people participated, of which 21 were female.

ii. Evaluation forms

>>Please add at least 4-5 representative samples in English. Please attach original evaluation forms as Annex 2.

Translated forms in English -5 examples

ឈ្មោះ Name	អ៊ុន តូច Oun Touch
ភេទ (ប្រុស/ស្រី) Gender (male/female)	ស្រី Female
តើអ្នកមានចំណាច់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	ការរៀបចំកម្មវិធីឡើងវិញមានការរៀបចំ The National Biodigester Programme (NBP) is well organized.
តើអ្នក “ពេញចិត្ត” កម្មវិធីឡើងវិញនេះដែរ? What do you like about this project?	ពេញចិត្ត កម្មវិធីឡើងវិញ ចំណុច ចំណេញពេលវេលា Save time ចំណេញសុខុមាលភាព និងថវិកា Save fire-wood & Save money មានពេលវេលាធ្វើការផ្សេងៗ Have more times to do other things ចំណេញដី និង ស្បែកបរិស្ថាន Have more bio-slurry and clean environment
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីឡើងវិញនេះដែរ? What do you not like about this project?	អ្នកក្រីក្រមិនអាចសាងសង់ឡើងវិញបាន Poor farmers cannot afford to pay money for building the biodigester

ឈ្មោះ Name	កែប សុកខ Kep Sokhon
ភេទ (ប្រុស/ស្រី) Gender (male/female)	ស្រី Female
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	មានសារៈសំខាន់ណាស់ It is very important.
តើអ្នក “ពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you like about this project?	ត្រង់ចំណុច៖ ងាយស្រួលក្នុងការប្រើ Easy use អត្ថប្រយោជន៍ More benefits កាត់បន្ថយការប៉ះពាល់បរិស្ថាន Reduce environmental impact
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you not like about this project?	តំលៃអត្រាការប្រាក់ខ្ពស់ High interests rate loan for biodigester.

ឈ្មោះ Name	ផល ផាឌិត Phal Phalit
ភេទ (ប្រុស/ស្រី) Gender (male/female)	ប្រុស Male
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	សិក្ខាសាលានេះមានគោលបំណងល្អ It is very good active workshop. ខ្ញុំចាប់អារម្មណ៍លើផ្នែកកម្មវិធីស្នូល និងសារៈប្រយោជន៍សម្រាប់ស្ត្រី និង ជីវិត។ My impression of about technical aspect of biodigester and benefits for women and bio-fertilization.
តើអ្នក “ពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you like about this project?	ដំណើរការនៃការសាងសង់ឡ ដីស្នូល ការត្រួតពិនិត្យគុណភាពឡ និង ការធានា។ The process of biodigester construction to ensure quality and warranty for farmers. ឡមានគុណភាព អាចប្រើបានលើស ពី ១០ ឆ្នាំ។ The quality can be used for more than 10 years.
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you not like about this project?	N/A

ឈ្មោះ Name	យ៉ាង សុប្បណ្ណា Klaing Sobunna
ភេទ (ប្រុស/ស្រី) Gender (male/female)	ប្រុស Male
តើអ្នកមានចំណាច់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	សូមឱ្យកម្មវិធី NBP ធ្វើឱ្យបានច្រើនដង Suggest NBP to organize more LSCW.
តើអ្នក “ពេញចិត្ត” កម្មវិធីទូទៅត្រង់ចំណុចណា? What do you like about this project?	ពិគ្រោះយោបល់ និងស្វែងយល់ ពិគ្រោះទៅវិញទៅមក ហើយថែមទាំងបែងចែកគោលនយោបាយពីគ្នាទៅវិញទៅមក Consultation, exploration and sharing experiences each other
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីទូទៅត្រង់ចំណុចណា? What do you not like about this project?	រយៈពេលខ្លីពេក LSCW has short-time.

ឈ្មោះ Name	តេង ប៊ូធី Teng Rithy
ភេទ (ប្រុស/ស្រី) Gender (male/female)	ប្រុស Male
តើអ្នកមានចំណាច់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	មានអត្ថប្រយោជន៍ច្រើន Many benefits ការរៀបចំបានល្អប្រសើរ LSCW is well organised
តើអ្នក “ពេញចិត្ត” កម្មវិធីទូទៅត្រង់ចំណុចណា? What do you like about this project?	ផ្តល់ផលចំណេញច្រើន ដល់ប្រជាពលរដ្ឋ Provide a lot of benefits to farmers
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីទូទៅត្រង់ចំណុចណា? What do you not like about this project?	ត្រូវការលាមកច្រើន Need a lot of manure

C. 2. Pictures from physical meeting(s)



Figure 4: Opening speech with distinguished guests from the Burkina Faso program (2nd and 3rd person from the right)



Figure 5: Group photo in front of the provincial department of Agriculture



Figure 6: Presentation on the grievance mechanism



Figure 7: Presentation on blind SD and do no harm assessment

C. Outcome of consultation process

i. Minutes of physical meeting(s)

>>Ensure that you include a summary of the meeting as well as all comments received. Please also include discussion on Continuous Input / Grievance Expression methods; comments, agreement or modifications suggested by Stakeholders.

Time	Agenda	Responsible Person
7:00 - 7:30	Registration	Khim Vuthy
7:30 - 7:40	Introduce representatives, participants and workshop chairperson	KhimVuthy
	Master of Ceremony (MC) welcome to the participants and gave the key summary goal and objectives of the workshop including the debriefing the agenda. He informed that there are total 101 of participants (80 males and 21 female) who are from different sectors. Also, the workshop today has been presided by the honourable senior government officials from Secretary of State of MAFF and SC Chairman, Deputy Governor of Takeo province, Takeo PDAFF Director and Takeo PBPO Director.	
7:40 - 8:00	Welcome remarks and debriefing progress on agriculture sector and biodigesters in Takeo	Takeo PDAFF Director
	Takeo is a province with significant potential for agricultural work, especially rice crops, with average yield of 3.8 tons per hectare in the country and total annual output exceeding 1 million tons, behind Prey Veng. Besides, the province also has potential for other planting activities, animal husbandry, and bio-digester construction. Takeo Biodigester Program starts in July 2006. As of July 2018, a total of 5,066 biodigesters are achieved with are ranked number one in the country. PBPO Takeo has trained PBPO Coordinators, technical supervisors, local technicians, skill masons, sale agents, and district extension workers, bio-slurry coordinators on promotion of composting, compost production, and poultry farming (chickens, ducks, and fish). Besides providing gas for cooking, lighting and using a pump instead of oil, the bio-slurry is a good natural fertilizer for all kinds of crops and raising animals (pigs, chickens, fish ducks). Biodigesters have benefited a lot in the environment, reducing carbon dioxide (carbon dioxide) as a major contributor to climate change. Biodigester is also an important part of animal husbandry. In recent years, the construction of biodigester has steadily declined, with various factors. To support the construction of a biodigester, which has been steadily declining from year to year, NBP and PBPO Takeo have tried all efforts to help farmers in reduce the farmers' expense by doing the research and development, adjusting to 2m3, 3m3 sized and used hollow bricks, so that the cost of construction is low, which farmers can build. In addition, NBP has provided \$ 150 subsidy, one cooking pot, one t-shirt, one lamp, one filter kit, 500 bricks and provides quality control and 2 years warranty. NBP and PBPO Takeo facilitate farmers to access biodigester loans through PRASAC, HatthaKaksekar, Amret with low-interest rate for biodigester construction.	
8:00 - 8:15	Welcome remarks by H.E Takeo Deputy Governor	Takeo Deputy Governor
	The Takeo Deputy Governor sincerely thanks to NBP and Takeo PDAFF, Takeo PBPO who jointly organised the LSC at Takeo province on 08-08-2018. H.E said that it is proud of Takeo province to implement biodigester since 2006 with 5,066 plants achieved up to date. H.E Deputy Governor appreciated the PDAFF esp. PBPO has played important role	

	to promote the livestock feeding and the reduce the impact on climate change through the reduction of GHG emissions. According to the current reality, domestic animal husbandry has been weakened by a decline in labor force in the agricultural sector and an increase in the use of agro-mechanical substitutes, but farms has increased. Some of these farmers have moved from raising livestock as for draft power to breeding cows, or focussing on breeding livestock. The natural and geographical factors also affect the biodigester application. In the challenge of declining construction of biodigesters H.E would like all stakeholders to participate in the discussion to find out the best way to do more promotion and encourage more farmers to build biodigester as biodigesters contribute to GHG emission reduction, reduce deforestation and reduce environmental impact. Additionally, H.E would like more attention to the stakeholders, especially the provincial agriculture department, to increase the effectiveness of promotion, to increase the focus on quality assurance, support services, and to find new ways to lower farmers' costs.	
8:15 – 8:30	Opening speech by Secretary of state of the Ministry of Agriculture Forestry and Fisheries	H.E Om Kimsir
	H.E Kimsir was delighted to attend the Consultation Workshop on the Gold Standard Project of the National Biodigester Program organized by National Biodigester Programme, in collaboration with the Department of Agriculture, Forestry and Fisheries, Takeo. H.E cited that based on the Royal Government's Rectangular Strategy for the 5th Legislature of the National Assembly, agricultural promotion is a priority area for national development and rural economic growth, with a focus on promoting productivity and diversification of the agricultural sector, land reform and mine clearance, fisheries reform, and reform of forestry. The Ministry of Agriculture, Forestry and Fisheries has tried to overcome all obstacles to sustainable agriculture, promotes intensive farming, forestry, animal husbandry, livestock farming, anti-depopulation, Organic farming reduces the use of chemical fertilizers and chemical pesticides and surveys of regular agricultural production. The lack of clean and modern energy in rural areas is a barrier to rural livelihoods and security. We know that the most important source of energy used in the household is fuelwood-90% of cooking energy, followed by cooking oil and gas, and lighting, and for other businesses. The use of renewable energy through the use of biogas plants has been the focus of the Royal Government for addressing the energy needs of households and encouraging the recycling of agricultural waste in the context of sustainable and cost-effective rural development and reduce poverty. The Ministry of Agriculture, Forestry and Fishery recognizes that biodigesters are most beneficial to agriculture and people's living conditions and are contributing to climate change because biodigesters: (1) Biodigesters provide renewable energy in rural areas, including raising livestock and hygiene. (2) Biodigester has helped boost agricultural productivity due to bio-slurry used for multi-purposes for pesticides, insect pests, improving soil quality and soil structure, and enhancing crop yields (3) Increase the production capacity of existing land, since biodigesters have encouraged farmers to use existing land for biodigester construction to feed them to improve their livelihoods. (4) Reduces about 4.5 tons of greenhouse gas emissions per year. Up to now, the program has built a total of 26,975 bio-digesters that have reduced 700,000 tons of greenhouse gases. (5) Reducing the use of wood fuel about 2200 kg /plant/ year H.E would like to express his sincere appreciation to all national and provincial biodigester officials and all stakeholders for their hard work and dedication. H.E Chair wished the participants will gain a deeper understanding of the programme and the development of carbon gold standard which is important for sustainability of the National Biodigester Programme.	
8:30 - 8:40	Coffee break	ALL

8:40-8:55	Explanation of the project: Seng Sopheap - NBP Cambodia - Benefit of Biodigester - Family health sanitation - Employment - Environment - Energy - Agriculture - Main achievements up to date - Voluntary Gold Standard - Q&A A.	Q1. How did you calculate and measure of CO2 emission? There are two or three ways to calculate the measure of CO2 emission: - How much woods we reduce before having biogas plan for cooking- Amount of woods we would reduce, - How much CH4 reduce from manure management by using biogas - Bio-slurry is good fertilisers, bioslurry replace chemical fertilise (bio slurry applies in improving soil fertility) Surveys and monitoring activities need to be carried out to measure the CO2 emission reduction Q2. Farmers tend to build the biodigester, they need to collect animal manure and keep manure in front their house. How does it effect to human health and environment? - The NBP has instructed farmers to keep animal manure in one place or in a bag to avoid sunlight the will be effect to the quality of manure and gas production. - The farmers can use special loan to improve their animal stage for better sanitation, and dung collection Q3. Biogas farmers practice the cultivation of integrated farming systems by using bio-slurry. Can it affect the yields and quality of vegetables production? - Bio-slurry use is not affected to the yields and quality of vegetables production because: B. When fully digested, effluent is odourless and does not attract insects or flies in the open. C. Effluent used as fertiliser reduces weed growth during application. When FYM is used the undigested weed, seeds cause an increased weed growth. D. Composted effluent and effluent used as liquid fertilisers have a greater fertilising value than FYM or fresh dung. This because nitrogen is available in a form that can be immediately absorbed, for some crops it is superior to chemical fertiliser. Based on farming practices with many demonstrations in the fields, both of liquid bio-slurry and bio-slurry compost is applied for crop cultivation and improve the soil fertility.
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Do No harm assessment- Sambath (9:00-10:30)

Safeguarding principles	Assessment questions	Is this statement correct?	Comments	If no, how can the project avoid this
3.0 SOCIAL & ECONOMIC SAFEGUARDING PRINCIPLES				
3.1 Principle 1 - Human Rights	The project does not cause negative impacts for women nor does it discriminate	Yes	None, all were in agreement	N/A
3.2 Principle 2 - Gender Equality and Women's Rights	The project does not cause negative impacts for women nor does it discriminate	Yes		N/A
3.3 Principle 3 - Community Health, Safety and Working Conditions	The project does not negatively affect the health or the safety of the community and provides good working conditions for masons	Yes		N/A
3.4 Principle 4 - Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	The project does not affect cultural heritage (pagoda, monuments etc) Relocation and re-settlement do not occur	Yes		N/A
3.5 Principle 5 - Corruption	You don't need to pay 'tea money' to get a biodigester other than the official cost	Yes		N/A

3.6 Principle 6 - Economic Impacts	The project promotes rural economic development and creates good quality jobs	Yes		N/A
Environmental pollution	The project does not cause pollution of the air, land and water	Yes (mean No pollution)		N/A
Any other concerns?	Q1. Farmers have \$250-\$400 to build the biodigester. If farmers don't have enough money to build the biodigester, can be called social discrimination? Could NBP make it more discount on biogas construction? - NBP thinks long term direction/gold to implement the program. There is no ownership, If the program provides fee of promotion in biodigesters construction. - Poor ID farmers I, II and III can build the biogas from the size 2m3 and program supported 500 bricks for interested farmers. NBP has developed and designed new model to reduce the price of biogas construction for poor ID farmers II and III. Q2. Farmers have difficulty collecting 20 kg of manure a day, may it be broken of biodigester if they reduce 10kg of animal manure? - Based on study and researched documentation, the estimated digester lifespan is over 20 years regardless of the feeding - In real practices/implementation, the first building biogas is still functioning, and we can assume that the biodigester age is over 20 years based on regular maintaining and proper biogas using. - If farmers don't have enough manure, they can choose biogas model 2m3 or 3m3 and they put less of manure they get fewer gas for cooking, but it's not affected to the quality of biodigester. Q3. Some women want to use biodigester, but they cannot afford to build the biodigester. Could NBP reduces the lower rate than 1.2% of loan in building biodigester for vulnerable women? - NBP has networked with Vietnam, Lao, Burkina Faso and Bangladesh to implement the National Biodigester Program. Our current biogas models are better If we compare with Burkina Faso including construction materials and applied models. - NBP cannot reduce the loan interested rate from 1.2% due to NBP is not provided direct loan to farmers but partnered MFIs were responsible in providing loan to farmers. - Represent of MFI said, Royal Government of Cambodia had announced to all MFIs in reducing from high rate to maximum of loan rate 1.5% per month. MFIs are private companies, so they need to get profit from the loan while some of companied were closed due to about mentioned loan rate. - This is a special loan in collaboration with NBP and selected MFIs (Prasac, Amret			

	and HKL) and it is lower rate (negotiation rate) if compare with other MFIs or institutions. • NBP were conducted the specific study/survey before having special loan to farmers with cooperated MFIs. • FMO supported NBP in providing administration fees for MFIs to run loan for biogas farmers. • MFIs help and assist biogas loan farmers to use loan after deducting \$150 subsidy from program and NBP always consult with women for loan transection before buying the biodigester. Q4. Could MFIs provide additional loan to debt farmers for biodigester construction? • Yes, unless the farmers are indebted with other loans
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Sustainable development minutes

SDG	Statement	Assessment		Monitoring
		Do you agree	Do you disagree	Ideas shared on monitoring
Goal 1. End poverty in all its forms everywhere	• NBP improves the income of farmers by reducing the need to buy or collect wood and chemical fertilizer • Building of digesters generates jobs in the community	Yes	None disagreed	None mentioned
Sustainable Development Goal 2 End hunger achieve food security and improved nutrition and promote sustainable agriculture	Bio-slurry is a good quality fertilizer, improves crop yield and is good for agriculture	Yes, Bio-slurry can help farmers to improve the soil and increase rice and crop cultivation.	None disagreed	None mentioned
Goal 3. Ensure healthy lives and promote well-being for all at all ages	• Cooking on biogas is clean, no smoke and therefore improves health • The environment is cleaner as manure is collected and put in the biodigester	Yes	None disagreed	None mentioned
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities	• Biodigesters save time of children so they have more time for study or schooling • NBP provides quality education to masons and BCA	Yes	None disagreed	None mentioned

for all				
Goal 5. Achieve gender equality and empower all women and girls	Biodigesters save time of women and girls which allows them to do other productive activities	Yes	None disagreed	None mentioned
Goal 6. Ensure availability and sustainable management of water and sanitation for all	- NBP does not affect water availability - Toilets can be connected to the biodigester which provides access to safe and clean sanitation	Yes	None disagreed	None mentioned
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	Biogas is clean, affordable, reliable and sustainable fuel and cooks like LPG	Yes	None disagreed	None mentioned
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	NBP offers decent working opportunities for sale agents, masons and BCA	Yes	None disagreed	None mentioned
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	- NBP introduced a high quality biodigester in Cambodia which last for over 10 years - A special biodigester credit is available to farmers to help with buying this innovation	Yes	None disagreed	None mentioned
Goal 10. Reduce inequality within and among countries	NBP is reducing inequality by improving the income of farmers	Yes	None disagreed	None mentioned
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable	This SDG relates to housing and settlements and is not related to NBP. For reasons of time keeping, this goal was not discussed as well	N/A	N/A	N/A
Goal 12. Ensure sustainable consumption and production patterns	Production: Bio-slurry makes production of crops (rice/vegetables) sustainable as it improves the quality of the soil Consumption of crops grown with bio-slurry is safer than with chemical fertilizer and pesticide	Yes	None disagreed	None mentioned

Goal 13. Take urgent action to combat climate change and its impacts	NBP reduces the impact on the climate by reducing wood use and by proper animal waste management	Yes	None disagreed	None mentioned
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	This SDG was not discussed as it has no relevance to NBP, the project does not involve or affect oceans, seas and marine resources	N/A	N/A	N/A
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	- Households with biogas do not need wood and therefore it protects the forests and biodiversity - Bio-slurry prevents land degradation	Yes	None disagreed	None mentioned
Goal 16. Promote peaceful societies for sustainable development	This goal has no relevance to NBP and was therefore not discussed, also to allow more time to discuss other more relevant SDGs.	N/A	N/A	N/A
Goal 17. Strengthen Global Partnership for Sustainable Development	NBP works with international organizations and shares lessons learnt within and outside Cambodia (i.e. see the visitors from Burkina Faso)	Yes	None disagreed	None mentioned
Any other comments	Q1. Does the NBP think of a long time in use of current model of biodigester? Do the biogas households is still functioned while other countries mobilize the medium scale of biodigester? - NBP had completed 3 phases to implement the national program in Cambodia while phase 3 started from 2016-2026. - The NBP plan is not yet considered until 2030. - NBP had conducted Biodigester Usage (BUS) Survey and Usage Survey on biodigester functioning every year. - Most of Thai farmers had stopped using biodigesters at household scale anymore while Vietnamese farmers are still use biodigester - The NBP also plans to build a medium scale plant if farmers stop using biogas households. Currently, NBP implement pilot project on Medium Scale Biodigester Innovation for Smart Environment in Kampong Speu under supported from Cambodia Climate Change Alliance (CCCA). 99% of farmers plow the land using a tractor for rice production. Each department in the government also have plan and activities to reach the goal. Q2: Through mechanism from Provincial Department of Forestry and Fisheries (PDAFF) and under support from GIZ, how does PDAFF link with NBP to exchange experiences from each other? - PDAFF established and setting up Agriculture Cooperative over 100 communities - PDAFF link to merge PADEE to Aspire, S-RET and GIZ with saving group in the			

	communities. Farmers can use loan from saving group to build biodigester and conducted experiments. Commune Extension Workers can play an important role in promoting biogas households and extension the management and use of bio-slurry.
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10:30-10:50	Discussion in input and Grievance Mechanism	Sopheap
Process book	A comment book shall be made available on the project site or in the most appropriate, publicly accessible location (e.g. a local community centre, at the local council, a local library or school), so that local stakeholders can provide feedback on the project. - Good method, - If yes, where should this book be located? and how to follow up is the question - Keep it communes However, if kept at the communes, NBP would need to monitor the books at over 500 communes, which is too time consuming and laborious. Comments would not be followed quickly. NBP will however keep a soft copy of the book of all comment received via all other means of commenting (see below) Participants agreed that this would not help them in addressing their problems in a swift manner. They preferred to contact NBP by telephone instead.	
Telephone	NBP hotline: 078 724 111 and Hotline can be reached (10 AM to 5PM) Good method, and preferred by most	
Website	Contact: www.nbp.org.kh Good method, and the fourth preferred option	
Email	Should we make an e-mail address for complaints? yes Yes Good method, and the third preferred method	
Facebook	National Biodigester Programme on FB Use Facebook messenger to contact NBP Good method, yes, and the second preferred option	
Other and preferred method	Any other methods that you can think of to provide feedback and complaints? Base on discussion and contribution, we can approach for three way to send feedbacks to NBP: - Telephone call - Facebook - E-mail	
10:50-11:00	Q&A	Sopheap
	Q: What is the fast Grievance Mechanism to farmers in response to their problem? A: Based on the response from participants, the priority fastest Grievance Mechanism is categorized 1) Hot-line 2) face-book 3) email 4) Website	

11:00-11:10	Filling in feedback forms	All
	Forms were filled in and collected	
11:10-11:25	Closing of the meeting	Meng Sothy (director PBPO)
	- The NBP strives to build biodigester with a low cost and efficient way. - Promote the benefits of biodigester households to reduce CO2 emissions amount 4,5t/year. - Procedure to reduce CO2 emission based on international rules or standards. - NBP implement pilot project of the medium and large scale of lagoon in pig farm to connect with generator, gas storage to use for cooking. - Biogas households are also connected with generator to use for crop watering in the community level. - Biodigester households can reduce the use of woods and charcoal and increase the use of animal manure to feed the biodigester households. - Saving time in social participations. - It's an important workshop to seek inputs from participants for program in the future and royal government of Cambodia pay attention for climate change adaptation. - Finally, I would say thank you for your kind participation and contribution from all stakeholders.	

ii. Minutes of other consultations

No other consultation meetings were conducted.

iii. Assessment of all comments

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
How did you calculate and measure of CO2 emission?	No	Question is an information request and it was answered in detail.
Farmers with biodigester, they need to collect animal manure and keep manure in front their house. How does it effect to human health and environment?	No	It was explained that biogas has a positive effect on human health and the environment
Biogas farmers practice the cultivation of integrated farming systems by using bio-slurry. Can it affect the yields and quality of vegetables production?	No	It was explained that bioslurry improves yields, reduces weed propagation and is superior compared to farm yard manure
Farmers need to afford \$250-\$400 build the biodigester. If farmers don't have enough money to build the biodigester, can be called social discrimination? Could NBP make it more discount on biogas construction?	No	NBP is a market-based program and the farmer's contribution is important when setting up a market based project with a long term vision. Giving away digesters does not lead to ownership and long term use. NBP however has a system in place with affordable credit to those that cannot afford and various

		subsidies such as \$150 subsidy, T-shirt, pots and 500 bricks free. NBP also designed a smaller digester for poorer farmers that is more affordable
Farmers have difficulty collecting 20 kg of manure a day, would it negatively affect the biodigester if they reduce 10kg of animal manure?	No	It was explained that there is no relationship between feeding and lifespan of the technology
Some women want to use biodigester, but they cannot afford to build the biodigester. Could NBP reduce the lower rate than 1.2% of loan in building biodigester for vulnerable women?	No	The subsidy is already at sub-market rates and beyond the control of NBP as well
Could MFIs provide additional loan to debt farmers for biodigester construction?	No	Only if these farmers are still credit worthy, i.e. are not too indebted
Does the NBP think of a long time in use of current model of biodigester? Do the biogas households is still functioned while other countries mobilize the medium scale of biodigester?	No	Digesters last for over 20 years, in other countries they also use biogas and NBP will follow the market and come with different models such as medium scale with changing market conditions
Through mechanism from Provincial Department of Forestry and Fisheries (PDAFF) and under support from GIZ, how does PDAFF link with NBP to exchange experiences from each other?	No	Yes, NBP is part of these networks and this was explained in detail

The feedback forms were also analysed, a summary is shown below:

Total respondents: 68	Male: 52	Female: 16
What your impressing about this meeting?	What do you like about this project?	What do you not like about this project?
-Like/Happy with workshops (8) -Good and important workshop(30) -Learning & Sharing from workshop(11) -Clear explanation(5) -Benefits for farmer relate to bio-digester plant(5) -Too short (2) -Good impression about the participation of the guests(1) -The uses of bio-digester(3)	-Not harm to environment(4) -Clean environment(4) -Reduce greenhouse gas(5) -Reduce firewood, Charcoal(2) -Has much benefits to users/farmers(6) -Convenience for cooking/using(10) -No smoke(1) -Saving time(16) -Saving money(15) -Good Hygiene(8) -Not harm to health(5)	-Not follow the schedule of the program (1) -Need big space(1) -Not movable(1) -High interest rate(2) -Should be lower interest rate(1) -Poor people can't effort(4) -No animals but want to have biogas(1) -Workshop is too short(1) -Need much manure(1) -N/A(53)

-Follow the community needs(1) -Benefits of Bio-slurry(1) -New technology(1) -Problem solving for farmer(1) -Let the people know the environment(1) -Well prepare of Workshop(4)	-Produce biogas& Fertilizer(8) -Benefit for agriculture(3) -New approach to work in near future(1) -The project consider all the partners in the Carbone process(1) -Facilitate farmer to have loan to build bio-digester plant(1) -Increase life level in rural area/reduce poverty(7) -Long life span of using up to 25 years(3) -Like all points(14) -Like the bio-digester programme (1) -Know the carbon(2) -Domestic bio-digester plant(1) -Consultation, Explore and sharing experience(1)	
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Most comments were positive. The negative points mentioned are mostly outside the control of NBP, see below:

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Not follow the schedule of the program (1)	No	The schedule was followed
-The technology is not movable(1)	No	This is intrinsic to the technology and cannot be adapted
-A large space is required for the technology (1)	No	A big space is not required as the biodigester is built under the ground
-High interest rates of the biogas credit is high(2) -The interest rate should be lowered (1)	No	On the contrary, the interest rate is sub-market rate and subsidized. Farmer's therefore can benefit from a lower interest rate than normally offered at MFIs.
-We want biogas, but we don't have animals(1)	No	Biogas plants run on manure, therefore only households with animals can benefit from this technology
-Workshop is too short(1)	No	All topics were discussed but time was a bit short. NBP however organizes many village workshop for interested people in the technology through which they can obtain more information

-A lot of manure is required to run the biodigester (1)	No	To produce sufficient biogas around 15 kg or more manure is required, this equivalent to 2 medium sized cows and not a lot
-The technology is too expensive for poor people (4)	No	Credit through MFI is available to farmers that cannot pay for the technology upfront and NBP has developed smaller and more affordable biodigesters for the poorer segments

iv. Revisit sustainability assessment

Are you going to revisit the SDG and safeguards assessment?	Yes	No
Please note that this is necessary when there are differences between your own assessment and feedback collected during stakeholder consultation.	☐	☒

Give reasoning behind the decision.

Stakeholders uniformly did not identify any issues related to sustainable development and the do no harm assessment. They uniformly had a positive view on the benefits of biodigesters and the Program.

v. Summary of alterations based on comments

N/A

SECTION D. SUSTAINABLE DEVELOPMENT ASSESSMENT

D. 1. Own sustainable development assessment

i. Safeguard assessment

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/potentially /no)	Justification	Mitigation measure (if required)
3.0 SOCIAL & ECONOMIC SAFEGUARDING PRINCIPLES				
3.1 Principle 1 - Human Rights	1. Does the project respect internationally proclaimed human rights and is not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights? 2. Does the project discriminate with regarding to participation and inclusion?	No	1. Cambodia has signed and ratified the “International Convention Economic, Social and Cultural Rights” and the “International Covenant on Civil and Political Rights ¹ ”. The project respects human rights, including dignity, cultural property and uniqueness of indigenous people. The installation of biodigesters relies on individual households voluntarily investing. The voluntary nature of this purchase will ensure that the individual dignity, cultural property and uniqueness of indigenous peoples are respected. Thus, the project is not complicit in Human Rights abuses	N/A

¹ https://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=29&Lang=EN

			2. Cambodia ratified the ILO Convention C087 (Freedom of Association and Protection of the Right to Organise Convention, 1948) and C098 (Right to Organise and Collective Bargaining Convention, 1949)² All staffs are voluntary working under NBP and are free to form association and provide feedback. Employment at NBP, PBPO or franchised enterprises, BCAs, do not discriminate against individuals and employment of staff is not based on gender, race, religion, sexual orientation or on any other basis.	
3.2 Principle 2 - Gender Equality and Women's Rights	Gender assessment question 1. Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits? 2. Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased burden on women or social isolation of men)? 3. Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack	No	1. No, the project does not affect control of resources, entitlements and benefits as, on the contrary, it brings benefits on time and resources savings which are mainly accrued to women 2. Project does not adversely affect men and women in marginalised or vulnerable communities 3. No, on the contrary as per item 2 above. It frees up time. NBP is open to all but there are certain societal barriers that prevent women to attend certain meetings due to household chores. Therefore, users' trainings and small group meetings are organized at a time convenient for women, around 8:30-9:30. In fact, in 2017, 1342 out	N/A

² http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:103055

	of time, child care duties, low literacy or educational levels, or societal discrimination)? 4. Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities 5. Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities? 6. Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits? 7. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services? 8. Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards?		of 2338 participants on compost training were female and 5868 out of 9117 participants of the small group meetings were female and 55% of the user trainings were female³ 4. The Project has taken into account gender roles and the abilities of women or men to benefit from the Project's activities. The Project is demand driven and any minority, if they have the ability to pay and enough manure, can invest. 5. On the contrary, it saves women a lot of time by no having to collect wood, faster and more convenient cooking and less cleaning of pots and pans as not soot is produced. 6. No, most of the benefits are accrued to women, see item 5 and the project does therefore not deepen discrimination 7. The Project does not limit women's ability to use, develop and protect natural resources as it would help women eliminate the need to collect firewood and therefore it protects natural resources. 8. Biodigesters are a safe and established technology in Cambodia, so no risks are anticipated regardless of gender, women, girls or boys.	
	The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality	No	1. The project is not complicit in Sexual harassment and/or any forms of violence against women - address the multiple risks of	N/A

³ NBP 2017 annual report

	and/or the situation of women. Specifically, this shall include (not exhaustive):		gender-based violence, including sexual exploitation or human trafficking. Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. There are no restriction of women's rights or access to resources (natural or economic).	
	Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work, specifically: • Where appropriate for the implementation of a Project, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities. • Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status. • Ensure that these conditions do not limit the access of women or men, as the case may be, to Project participation and benefits.	No	- Contributions are equal and equitable. Pay is fixed for masons and independent of gender. - both men and women are free to participate in any of the activities. - There are no restrictions. The program is demand driven and has therefore no influence on who wants to invest	
3.3 Principle 3 - Community Health, Safety and Working Conditions	1. Are adverse impacts on the health and safety of affected communities during the Project's life cycle from both routine and	no	The Cambodian Constitution provides Cambodians with a range of rights and	N/A

	non-routine circumstances happening? 2. Are workers provided with safe and healthy working conditions and to prevent accidents, injuries, and disease?		obligations such as Articles 228-232 of the Labour Law⁴ 1. Biodigesters hygienically treat waste and eliminate household air pollution. Health consequently will be improved 2. All masons are trained and certified on safe working conditions. NBP obliges mason to buy an accident insurance which is the most dangerous activity.	
3.4 Principle 4 - Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	3.4.1 Sites of Cultural and Historical Heritage 1. Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, or practices)? 3.4.2 Forced Eviction and Displacement 2. Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)? 3.4.3 Land Tenure and Other Rights 3. Does the Project require any change to land tenure arrangements and/or other rights? 3.4.4 Indigenous Peoples 4. Are indigenous peoples present in or	No	Cambodia has signed and ratified the “Convention for the Safeguarding of the Intangible Cultural Heritage, 2003”⁵ 1. The project area are most provinces in Cambodia, but the site of the digesters is located at backyard of farms without any objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture on a voluntary basis and does not involve and is not complicit in the alteration, damage or removal of any cultural heritage., 2. No, biodigesters are only built at the premise of a household farm 3. No, as above, the project does not result in	N/A

⁴ http://www.cambodiainvestment.gov.kh/the-labor-law-of-cambodia_970313.html

⁵ http://portal.unesco.org/en/ev.php-URL_ID=33391&URL_DO=DO_TOPIC&URL_SECTION=201.html

	within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?		a change in land tenure rights. 4. No, no land claims by indigenous people occur nor do indigenous people live in the project area.	
3.5 Principle 5 - Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects.	1. no	Cambodia ratified the United Nations Convention against Corruption in September 2007 ⁶ The NBP, PPBO, BCA masons etc. do not engage in any type of corruption activities	N/A
3.6 Principle 6 - Economic Impacts	Does the project: - Promote equitable, sustainable economic growth and stability and Projects that are appropriate and considerate of the economic situation in which they are developed? - Respect and promote worker's rights, to promote the right to decent work, fair treatment, non-discrimination, and equal opportunity for workers, and to avoid the use of forced labour and child labour? - Prioritise appropriate and properly considered local employment and procurement wherever possible? 3.6.1 Labour rights - Are working conditions in compliance with national labour and occupational health and safety laws?	1. no 2. No	1. Yes, most farmers rely on wood for cooking and biogas is a solution to their problems related to wood collection and air pollution. Also, the bio-slurry helps them to improve farm economics. All farmers have access to the biodigester, provided they have the ability to pay and enough livestock. Those without it, could become masons and earn an income by constructing biodigesters 2. Yes, because masons can only get certified when 18 years old, likewise unskilled masons are at least 18 years old because as per Cambodian labour law. The selection of masons is not based on gender, race, or religion, but based on ability, willingness to work, basic education etc. 3. All employment is local, and masons live in the same district as where they work	N/A

⁶ <http://www.unodc.org/unodc/en/corruption/ratification-status.html>

	2. Are workers allowed to establish and join labour organisations? 3. Are working agreements with all individual workers documented and implemented? Are working hours not more than 48 hours per week? Is there a provision for overtime? Modalities on health insurance? Modalities on termination of contract with provision of voluntary resignation. Is there provision for annual leave of 10 days or more? 4. Is the employment model applied local and culturally appropriate? 5. Is there child labour? What age verification mechanisms does the project employ to prevent this? 3.6.2 Negative economic consequences 1. Can NBP demonstrate that the Project implemented (Biodigesters) are financially sustainable beyond the project crediting period?	3. no 3.6.1 labour rights All no 3.6.2 negative social consequences no	3.6.1 labour rights 1. Yes, working conditions of masons are in compliance with national labour law and occupational health and safety laws. 2. Yes, they are allowed to join any organisations, union or labour. Cambodia ratified the ILO Convention C087 (Freedom of Association and Protection of the Right to Organise Convention, 1948) and C098 (Right to Organise and Collective Bargaining Convention, 1949)⁷ 3. BCAs and masons are independent from NBP, however the franchise contract with NBP stipulates that they have to follow the labour law. There is no provision for overtime – as workers are all freelance. An accident insurance is provided to the masons by the BCA. No, but masons work on a freelance basis, and work is often one digester or a few at the time 4. Yes, all is the employment model is culturally appropriate 5. Certification of masons is only possible aged 18 and above. The certification is the ID card. NBP verifies this with the ID card or birth certificate 3.6.2 Negative economic consequences 1. Yes, warrantee is still offered after the crediting period by locking a after warrantee fee for BCAs that will only be released after the warrantee period. Furthermore, once a biodigester is constructed, they last for around 20 years.	
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⁷ http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:103055

	2. Does the project consider potential risk to the local economy and have these been taken into account in the project design, implementation, operation and after the project? Including ensuring that the benefits are socially inclusive and sustainable also to vulnerable and marginalized social groups?		2. No risks are attributed or associated with this project. On the contrary skilled and non-skilled employment is created benefitting the rural economics reducing the need to migrate for good quality jobs.	
4.0 ENVIRONMENTAL & ECOLOGICAL SAFEGUARDING PRINCIPLES				
Principle 1 - Climate and Energy	1. Will the Project increase greenhouse gas emissions over the Baseline Scenario? 2. Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	1. No, as can be observed from the results from CPII and CPI 2. No, the project relies on manure which is currently not used as a fuel	N/A
Principle 2 – Water	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	1. No the construction of biodigesters does not affect natural or pre-existing pattern of watercourses, ground-water and/or the watershed	N/A
4.2.2 Erosion and/or Water Body Instability	1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? If 'Yes' or 'Potentially' proceed to question 2 2. Is the Project's area of influence	No	1. No, the construction occurs in backyards and does not cause erosion 2. Not applicable.	N/A

	susceptible to excessive erosion and/or water body instability?			
Principle 3 – Environment, ecology and land use				
4.3.1 Landscape Modification and Soil	1. Does the Project involve the use of land and soil for production of crops or other products?	no	1. No, the construction of biodigesters does not use soil or crops.	N/A
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	no	1. No, the construction of biodigesters is not related to these risks.	N/A
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	1. This is not applicable to the project as it does not produce crops	N/A
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No, or not larger than the baseline	1. Digester effluent can cause local eutrophication if not use similar to the baseline situation. However, most farmers use bio-slurry which is a superior fertilizer compared to farm yard manure and the impact is therefore less on the environment compared to the baseline.	N/A
4.3.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	1. No hazardous and non-hazardous chemical are involved in biodigester use and construction	N/A
4.3.6 Pesticides & Fertilisers	Will the Project involve the application of pesticides and/or fertilisers?	Yes	1 Farmers are trained to use bio-slurry as effective organic fertilizer which can improve yields and soil quality. However, the project does not encourage using chemical fertilizers	N/A

4.3.7 Harvesting of Forests	Will the Project involve the harvesting of forests?	No	On the contrary, the project will result in a lower demand for firewood	N/A
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	On the contrary, bio-slurry is a very good fertilizer which improves crop quality	N/A
4.3.9 Animal husbandry	Will the Project involve animal husbandry?	No	The project involves the construction of biodigesters through the development of a private sector. Households that invest however, raise animals, but the project only focusses on the manure excreted and managed	N/A
4.3.10 High Conservation Value Areas and Critical Habitats	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites[12] identified?	No	Not applicable, the project only built digesters in backyards of farmers	N/A
4.3.11 Endangered Species	1. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? 2. Does the Project potentially impact other areas where endangered species may be present through transboundary affects	No	1. No, the project only focusses on rural areas with technical potential for biogas. These exclude area where endangered species may live 2. No, as above	N/A

ii. Sustainable Development Goals (SDG) outcome

>> (Specify the relevant SDG target for each of three SDGs addressed by the project. Refer most recent version of targets [here](#) .)

See PDD section 6.1

Goal	Target	Output indicator
Sustainable Development Goal 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
Sustainable Development Goal 2 End hunger achieve food security and improved nutrition and promote sustainable agriculture	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1: Proportion of agricultural area under productive and sustainable agriculture
Goal 13: Climate Action Take urgent action to combat climate change and its impacts	13.2 integrate climate change measures into national policies, strategies, and planning	Defined herein as Emissions Reductions or Removals and/or Adaptation to climate change ⁸

⁸ See <https://globalgoals.goldstandard.org/100-gs4gg-principles-requirements/>

D. 2. Stakeholders' Blind sustainable development assessment

i. Safeguard assessment

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/potentially/no)	Justification	Mitigation measure (if required)
3.1 Principle 1 - Human Rights	The project does not cause negative impacts for women nor does it discriminate	No, in the sense there is no negative impact	Stakeholders did not identify any issues with this principle and NBP	N/A
3.2 Principle 2 - Gender Equality and Women's Rights	The project does not cause negative impacts for women nor does it discriminate	No, in the sense there is no negative impact	Idem, in fact the impact is positive on women empowerment due to time savings etc.	N/A
3.3 Principle 3 - Community Health, Safety and Working Conditions	The project does not negatively affect the health or the safety of the community and provides good working conditions for masons	No, in the sense there is no negative impact	Idem and the impact is positive due to health improvement and creating of skilled jobs	N/A
3.4 Principle 4 - Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	The project does not affect cultural heritage (pagoda, monuments etc) Relocation and re-settlement do not occur	No, in the sense there is no negative impact	There is no relation between the project and this safeguard	N/A
3.5 Principle 5 - Corruption	You don't need to pay 'tea money' to get a biodigester other than the official cost	No, in the sense there is no negative impact	All transactions are monitored are recorded, no possible impact identified	N/A

3.6 Principle 6 - Economic Impacts	The project promotes rural economic development and creates good quality jobs	No, in the sense there is no negative impact	The impact is positive and improves the rural economy	N/A
Environmental pollution	The project does not cause pollution of the air, land and water	No, in the sense there is no negative impact	Positive impact as manure is managed properly and hygienically	N/A

ii. Sustainable Development Goals (SDG) outcome

>> (Specify the relevant SDG target for each of three SDGs addressed by the project. Refer most recent version of targets [here](#) .)

>>>Give analysis of difference between own sustainable development assessment and the one resulting from the blind exercise with stakeholders. Explain how both were consolidated.

Local stakeholders rated the impact of NBP on all SDGs as positive. Feedback on SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development and 16: Promote peaceful societies for sustainable development was not discussed as these SDGs are irrelevant to NBP. NBP's activities do not relate to ocean, seas and marine resources nor does it promote or affect peaceful societies.

For that reason, the three SDGs identified by NBP, 2, 7 and 13 are maintained

SECTION E. SUSTAINABILITY MONITORING PLAN

E. 1. Discussion on Sustainability monitoring Plan

>> Discuss stakeholders' ideas on monitoring sustainable development indicators. Do people have ideas on how this could be done in a cost effective way? Are there ways in which stakeholders can participate in monitoring?

The participants did not provide suggestion on how to monitor sustainable development. Biogas households however will participate as they are targeted by the various monitoring surveys.

E. 2. Discussion on continuous input / grievance mechanism

>> Discuss the Continuous input / grievance mechanism expression method and details, as discussed with local stakeholders.

	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	A Process Book in the form of an excel spreadsheet where all customer comments are logged is available and actively used. The includes details of the comments received, from who, who is responsible for following up and whether the issue is addressed or not. Information requests however, will not be followed up.	NBP is nationwide programe, a physical process book would be too laborious to maintain and follow up resulting in delays in responses. All comments however will be recorded at the office in a dedicated excel file.
Telephone access	Stakeholders will be able to call to provide input on the project's	The provided number includes a mobile phone number to enable users to either call or text their

	performance at any time. The number available to call is: 078 724 111 (The NBP hotline)	comments to NBP. Mobile phone use is the primary means of communication nationwide. Since almost everyone in Cambodia has a mobile phone, or access to one, it is expected that the majority of feedback will come via telephone. This was also the preferred method by Stakeholders
Internet/email access	Stakeholders will be able to provide continuous input/feedback via the following email address: Email: info@NBP.org.kh Website: www.nbp.org.kh	For users with access to the internet, direct contact with the NBP through the programme's website or email is third preference by most stakeholders.
Facebook	Facebook has become the most important platform through which information is accessed and shared in Cambodia. For that reason, NBP has its own page to facilitate contact with existing and future clients	Second preferred method – through facebook messenger users can quickly contact NBP on any issues
Nominated Independent Mediator (optional)	Not discussed	Optional only, and given that no risk was identified by the stakeholders, an independent mediator was not deemed necessary
<u>Gold Standard foundation</u>	<u>Not discussed in the LSCW but shared among the SFR contacts by email, see section E</u>	<u>Channel for continuous input:</u> <u>Telephone: +41 (0) 22 788 7080</u> <u>Email: help@goldstandard.org</u>
Other	Not identified	Given that all three other methods of providing feedback are provided, it was not deemed necessary to also include a Nominated Independent Mediator

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SECTION F. Description OF THE DESIGN OF THE STAKEHOLDER FEEDBACK ROUND

The SFR was organized with a two months' time window, from the 10th of August to the 10th of October. It was organized as:

- Facebook advertisement including 3 boosts
- Published on the NBP website
- Email communication with LSC participants that were invited by email

No comment were received by email, telephone or facebook.

With facebook some 8,202 Cambodians were reached:

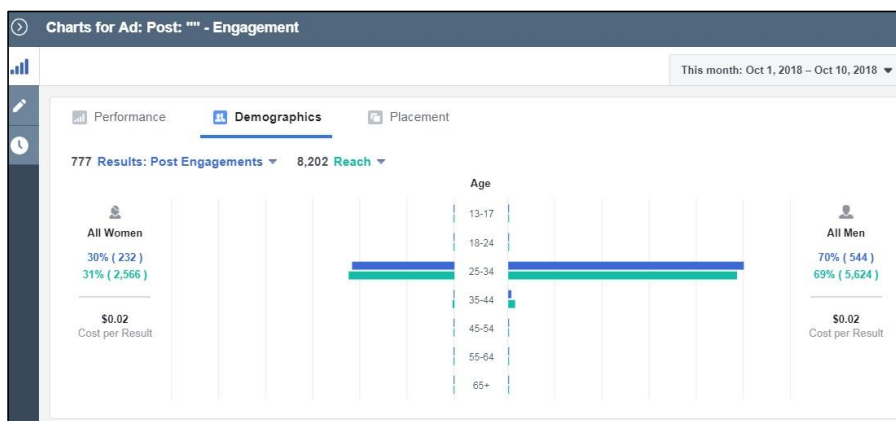


Figure 8: Number of people reached through Facebook.

Other evidences of SFR outreach activities are copied here below:

Invitation for Stakeholder feedback round
GS751 – National Biodigester Programme (NBP)

The National Biodigester Programme would like to take this opportunity to invite you to participate in the Stakeholder Feedback round for its Gold Standard Carbon project. As part of the carbon certification process overseen by the Gold Standard Foundation, relevant stakeholders are presented with the opportunity to provide feedback on NBP.

The National Biodigester Programme (NBP) organized a Local Stakeholder consultation (LSC) in Takeo on the 8th of August 2018. Following this workshop, we would like to share with you the following documentation of the workshop and the Programme:

- » NBP project design document CPIII
- » Stakeholder consultation report (English)
- » English and Khmer minutes of the physical meeting in Takeo
- » Non-technical summary

For more information visit the Gold Standard website: [GS751 – National Biodigester Programme \(NBP\)](#).

We invite local stakeholders, including government authorities, NGOs and the general public to provide feedback for the Stakeholder Feedback Round (SFR), starting from the 10th August 2018 and ending on the 10th of October 2018

If you have feedback, comment or question, please send it to NBP by email to eric.buysman@gmail.com (English) or in Khmer to Mr Sopheap sopheap@nbp.org.kh or call to 078 724 111

សូមគោរពអញ្ជើញអ្នកចាក់ពង្សីផ្តល់មតិយោបល់ក្រលប់
GS751 – កម្មវិធីឧបត្ថម្ភស្ថាប័នជាតិ (NBP)

កម្មវិធីវិវត្តន៍ជនជាតិស្នេហាពលរដ្ឋក្រីក្រដែលបានចូលរួមក្នុងសិទ្ធិសាលាពីគ្រោះឈោលរដ្ឋកាកាព័ន្ធវិស័យកម្មវិធីវិវត្តន៍ជនជាតិស្នេហាពលរដ្ឋក្រីក្រនៅក្នុងខែមិថុនាឆ្នាំ២០១៥ នៅក្នុងកម្មវិធីកម្ពុជាប្រជាធិបតេយ្យខេត្តកោះកុងដែលបានប្រើប្រាស់កម្មវិធីសិទ្ធិសាលាស្រីក្រីក្រដែលបានបង្កើតឡើងដោយក្រុមការងារស្រីក្រីក្រខេត្តកោះកុង។

- » NBP project design document CPIII (English)
- » Stakeholder consultation report (English)
- » English and Khmer minutes of the physical meeting in Takeo
- » Non-technical summary

សំរាប់ព័ត៌មានបន្ថែមទាក់ទងនឹងគម្រោងការបោះឆ្នោតស្តង់ដារសម្រាប់ស្រោចទៅកាន់វិបសាយ Gold Standard
GS751 – National Biogas Programme (NBP)

ការផ្តល់ជាមតិគ្រូឈប់បង្ហាញនូវនិយោជកច្បាប់ពីថ្ងៃទី ១០ ខែសីហា ឆ្នាំ២០១៨ តាមរយៈអ៊ីម៉ែល eric.buysman@gmail.com និង sopheap@nbp.org.kh ។ សំរាប់ព័ត៌មានបន្ថែម សូមទំនាក់ទំនងមកលេខ ០៧ ៧២៦ ១១១

Figure 9: Announcement on the NBP website



Figure 10: Announcement on Facebook

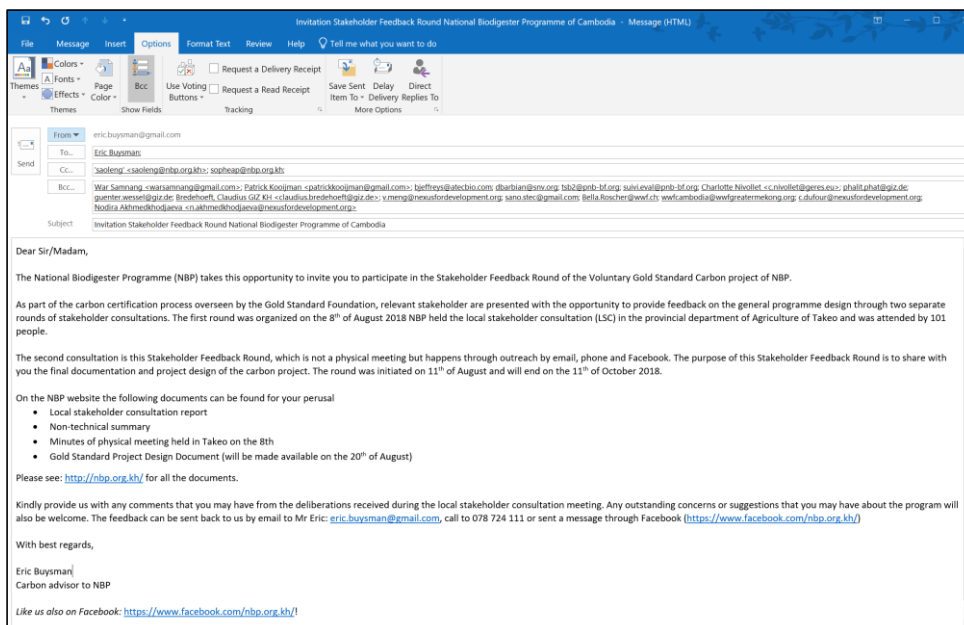


Figure 11: Evidence of email # 1

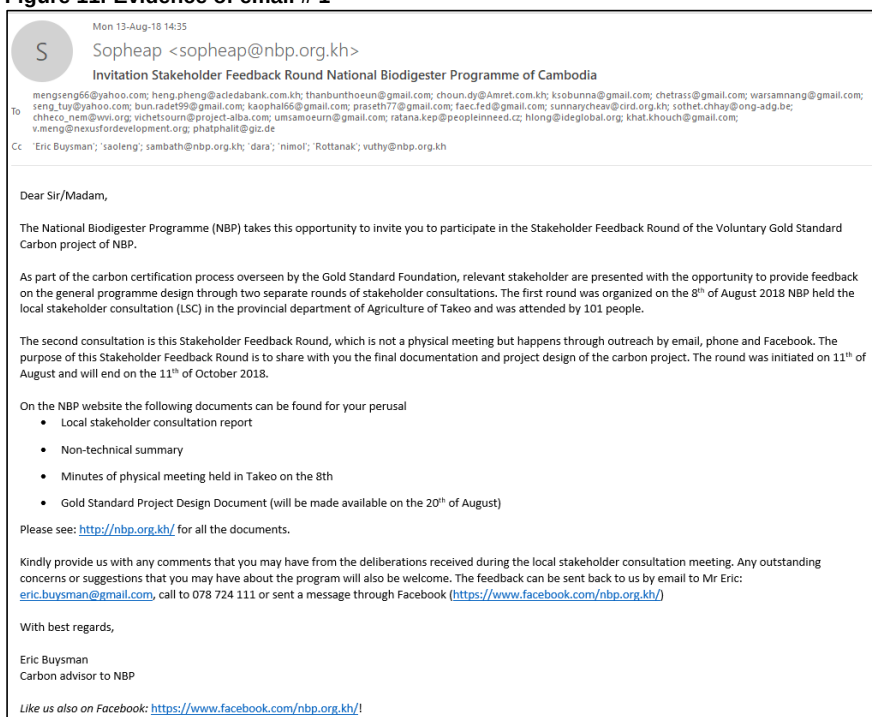


Figure 12: Evidence of email #2

RE: Invitation Stakeholder Feedback Round National Biodigester Programme...



eric.buysman@gmail.com

Reply

Reply All

Forward



To 'Eric Buysman'

Thu 21-Feb-19 15:19

Cc 'saoleng'; sopheap@nbp.org.kh

Bcc Bella.Roscher@wwf.ch; bjeffreys@atecbio.com; c.dufour@nexusfordevelopment.org;
c.nivollet@geres.eu; claudius.bredehoeft@giz.de; dbarbian@snv.org; guenter.wessel@giz.de;
n.akhmedkhodjaeva@nexusfordevelopment.org; patrickkooijman@gmail.com;
phalit.phat@giz.de; sano.stec@gmail.com; suivi.eval@pnb-bf.org; tsb2@pnb-bf.org;

You forwarded this message on 21-Feb-19 15:20.

Dear Sir/Madam,

Thanks you very much for your valuable feedback!

In addition to this, we would like to inform you that there is a permanent channel for continuous inputs and grievance independent from NBP. The contacts details of that channel are:

The Gold Standard
Foundation's headquarters:

Chemin de Balexert 7-9
1219 Châtelaine
International Environment House 2
Geneva, Switzerland

Telephone: T. +41 (0) 22 788 7080

Email: help@goldstandard.org

With best regards,

Eric

From: Eric Buysman <eric.buysman@gmail.com>

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Figure 13: Evidence of sharing the GS contact to SFR contacts (1/2)

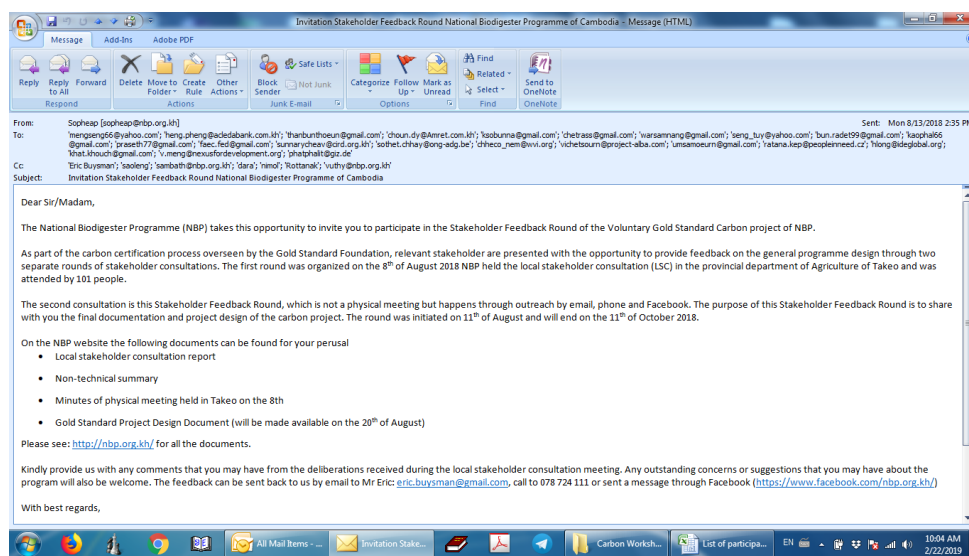


Figure 14: Evidence of sharing the GS contact to SFR contacts (2)

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color: Auto

ANNEX 1. ORIGINAL PARTICIPANTS LIST



កម្មវិធីបង្កើនស្នូលថ្នាក់ជាតិ

National Biodigester Programme

បញ្ជីរាយនាមអ្នកចូលរួមសិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការប្រើប្រាស់ប្រព័ន្ធបង្កើនស្នូលជាតិ

ថ្ងៃទី ០៨/០៨/២០១៨ មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ នៃក្រសួងកសិកម្ម

ល.រ	ឈ្មោះអ្នកចូលរួម	មុខរបរ/តួនាទី	ភេទ	ហត្ថលេខា	ស្ថាប័ន	លេខទូរស័ព្ទ
1	កាតូ ប៊ុនធី	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	ACLEDA	015 400 340
2	ឌី ឌីស	នាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	022 54 70 90
3	លាង ឈុន	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	012 91 21 76
4	ជួន វិចិត្រ	នាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	011 86 87 12
5	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	011 95 22 55
6	លាង ឈុន	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	012 81 76 87
7	កុំ ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	012 92 47 58
8	កុំ ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	016 26 98 94
9	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	099 47 82 99
10	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	អគ្គនាយកដ្ឋាន	092 23 02 45
11	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	ATEL	096 58 02 92
12	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	GIZ	012 97 31 33
13	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	ATEC	096 29 82 08
14	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	Nexus	012 72 63 36
15	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	BCA	077 7 67 96
16	Eric Roussier	adviser	M	[Signature]	NBP	012 62 06 49
17	SANDWIDI Gwladys	Technical Manager	F	[Signature]	PNB-BF Burkina Faso	00226 70 07 7838
18	DA Lin	Monitoring & evaluation	M	[Signature]	PNB-BF Burkina Faso	00226 71 68 590
19	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	BPBO	086 82 29 33
20	ឌី ឌីស	អគ្គនាយកដ្ឋានកសិកម្ម	ប្រុស	[Signature]	BPBO	010 99 92 56

អ្នកចូលរួមសរុប: 20 នាក់ (ប្រុស 1 នាក់)

រៀបចំដោយ.....

NBP 101 - (២០១៨)



កម្មវិធីបង្កើនជីវភាពរស់នៅ

National Biogas Programme

បញ្ជីឈ្មោះអ្នកចូលរួមសិក្ខាសាលាពីគ្រោងយោបល់ស្តីពីគម្រោងការប្រកួតប្រជែងជាមួយគោលនយោបាយនៃកម្មវិធីបង្កើនជីវភាពរស់នៅ

ថ្ងៃទី ០៨/០៨/២០១៨ មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តតាកែវ

ល.រ	ឈ្មោះអ្នកចូលរួម	មុខរបរ/ធុរកិច្ច	ភេទ	ហត្ថលេខា	ស្ថាប័ន	លេខទូរស័ព្ទ
1	ជិត ឈីន	កសិករ	ប្រុស		ស្ថាប័ន	01270025
2	ឈន់ ឈីន	Cam	ប្រុស		ស្ថាប័ន	016695638
3	ឈន់ ឈីន	កសិករ	ប្រុស		ស្ថាប័ន	096768221
4	ឈន់ ឈីន	កសិករ	ប្រុស		ស្ថាប័ន	01274569
5	ឈន់ ឈីន	កសិករ	ប្រុស		ស្ថាប័ន	0969064478
6	ឈន់ ឈីន	កសិករ	ប្រុស		SUP	012387616
7	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF-TAK	069373788
8	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	011646733
9	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	
10	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	078566766
11	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	012606049
12	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	070972045
13	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	003265526
14	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	016334339
15	ឈន់ ឈីន	កសិករ	ប្រុស		PDA	02719638
16	ឈន់ ឈីន	កសិករ	ប្រុស		S-RET	011959280
17	ឈន់ ឈីន	S-RET Adv	ប្រុស		MAFF / PSU	012835151
18	ឈន់ ឈីន	S-RET Adv	ប្រុស		MAFF - Ru	012900221
19	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	0965258027
20	ឈន់ ឈីន	កសិករ	ប្រុស		MAFF	012387312

អ្នកចូលរួមសរុប 20 នាក់ (២០ នាក់)

អ្នកបង្កើនជីវភាពរស់នៅ.....



កម្មវិធីឱ្យដឹងខ្លួនជាតិ

National Biodigester Programme (NBP)

បញ្ជីវត្តមានអ្នកចូលរួមសិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីគម្រោងការប្រើប្រាស់ប្រព័ន្ធបង្កាបសំណល់ក្នុងគម្រោងវិនិយោគសាងសង់

ថ្ងៃទី ០៨/០៨/២០១៨ មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តកាកែត

ល.រ	ឈ្មោះអ្នកចូលរួម	មុខរបរ/កូដាទី	ភេទ		ហត្ថលេខា	ស្ថាប័ន/ទីកន្លែង	លេខទូរស័ព្ទ
			ប្រុស	ស្រី			
1	ឈុន កាសិន	សិក្សាបច្ចេកទេស	✓			MAFF	016334339
2	កុម្មុយ ច័ន្ទី	កសិករ	✓			MAFF	003265520
3	ស៊ីល កុម្មុយ	កសិករ	✓			MAFF	012782741
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កម្មវិធីបង្កើនបង្កនិងថ្នាំកំដៅ

National Biogas Programme

បញ្ជីឈ្មោះអ្នកចូលរួមសិក្សាសាលាបង្កើនបង្កនិងថ្នាំកំដៅ (គ្រោងការប្រគល់ជូនដល់អ្នកបង្កើនបង្កនិងថ្នាំកំដៅ)

ថ្ងៃទី ០៨/០៨/២០១៨ មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តតាកែវ

ល.រ	ឈ្មោះអ្នកចូលរួម	តួនាទី	ភេទ	ស្ថានភាព	ស្ថាប័ន	លេខទូរស័ព្ទ
1	ឈ្មោះអ្នកចូលរួម	BCA	ប	ស្រី	BCA	០៩២៤៣៨៤១
2	ឈ្មោះអ្នកចូលរួម	BCA	ប	ស្រី	BCA	០១៧០៥៣០៨៦
3	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩៨៣៨៥៦៣
4	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៦៦៨៥៨៥២៤
5	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩២៦៣៣៥០
6	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩២៥៤៣៦០
7	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១២៣២១៤១
8	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១៦៨១២៤៤
9	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩៥៧៧៧៥៤
10	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៨៨៤២៨៥៦២
11	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៧០៣២៨៥៧៧
12	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩៦៨៨១៦៥៩
13	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១៧០២៨៣០
14	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៦៩៦៨៤៩៦០
15	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៧០៩២៤៥៥
16	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩៦៨៨៤៦៦៤
17	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១៧០២៤២០
18	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១៧០២៤២០
19	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០១៧០២៤២០
20	ឈ្មោះអ្នកចូលរួម	គណៈកម្មាធិការ	ប	ស្រី	គណៈកម្មាធិការ	០៩៦៨៨៤៦៦៤

អ្នកចូលរួមសរុប ២០ នាក់ (ប្រាំ) នាក់

រៀបចំដោយ.....



National Biogas Programme

បញ្ជីកម្មវិធីអភិវឌ្ឍន៍ប្រព័ន្ធបង្កាន់ឥន្ធនៈធម្មជាតិ

ថ្ងៃទី ០៨/០៨/២០១៦ បណ្តុះបណ្តាលប្រជាជន និងសហគមន៍ ខេត្តតាកែវ

ល.រ	ឈ្មោះអ្នកចូលរួម	មុខរបរ/តួនាទី	ភេទ	ហត្ថលេខា	ស្ថាប័ន	លេខទូរស័ព្ទ
1	ស៊ុន វណ្ណៈ	គណនី	ប	[Signature]	គណនី	០១៧៧៧៧៧៧
2	ឃុន ព័ន្ធ	—	ប	[Signature]	គណនី	០១៧៧៧៧៧៧
3	កុមារ វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
4	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
5	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
6	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
7	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
8	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
9	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
10	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
11	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
12	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
13	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
14	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
15	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
16	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
17	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
18	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
19	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧
20	ស៊ុន វណ្ណៈ	—	ប	[Signature]	—	០១៧៧៧៧៧៧

អ្នកចូលរួមសរុប ២០ នាក់ ប្រភេទ ២ ភេទ

អ្នកបង្កើនដោយ.....

ANNEX 2. ORIGINAL EVALUATION FORMS

With the purpose to limit the file size only five copies of original evaluation forms are included. Copies of the other forms can be provided at request.

ទំព័រ ០១ របស់ប្រតិបត្តិការ

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការអនុវត្តប្រព័ន្ធបង្កើនផលិតផលកសិកម្ម
ថ្ងៃទី០៨ ខែសីហា ឆ្នាំ២០១៨ រចនាសម្ព័ន្ធ ៧:៣០ ព្រឹក ដល់ ១១:៣០ ថ្ងៃត្រង់
មជ្ឈមណ្ឌលកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តកោះកុង

Evaluation form

NBP Local Stakeholder Consultation Workshop

ឈ្មោះ Name	អ៊ុន តូច Oun Touch	អ៊ុន តូច
ភេទ (ប្រុស/ស្រី) Gender (male/female)	Female	ស្រី
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	The NBP is well prepared/managed.	គាត់ប្រុងប្រយ័ត្នខ្លាំង មានគុណភាពខ្ពស់
តើអ្នក "ពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you like about this project?	- Save time - Save fire-wood & save money - Have more time to do other things - Have bio-slurry & clean environment	ពេញចិត្ត ខ្លាំងណាស់ ចំណុច: គេចាត់ចែង - គេចាត់ចែង អស់ៗ គេចាត់ចែង - គេចាត់ចែង អស់ៗ គេចាត់ចែង - គេចាត់ចែង អស់ៗ គេចាត់ចែង
តើអ្នក "មិនពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you not like about this project?	Poor farmers cannot afford to pay money for building the biogas digester.	ក្រីក្រ មិនអាចទទួលបាន មិនអាចទទួលបាន មិនអាចទទួលបាន
ហត្ថលេខា Signature		CS

ទំព័រ ២ យកផ្ទៃ

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីគម្រោងការបង្កើនជំនាញនៃកម្មវិធីវិនិយោគសាងសង់
ថ្ងៃទី០៨ ខែសីហា ឆ្នាំ២០១៨ ម៉ោង ៧:៣០ ព្រឹក ដល់ ១១:៣០ ថ្ងៃត្រង់
មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តតាកែវ

Evaluation form

NBP Local Stakeholder Consultation Workshop

ឈ្មោះ: កែប សុភក្តិ Name: Key Sokon	ឈ្មោះ: កែប សុភក្តិ
ភេទ (ប្រុស/ស្រី) ៖ ស្រី Gender (male/female) Female	ភេទ (ប្រុស/ស្រី) ៖ ស្រី
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting? - It is very important.	មានតារាងសំខាន់ណាស់
តើអ្នក "ពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you like about this project? - More benefits - Reduce environmental impact	- ត្រូវបានបង្កើនការចូលរួមពីអ្នកទូទៅ - អន្តរប្រជាជន - ការបង្កើនការងារ: ការងារសាងសង់
តើអ្នក "មិនពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you not like about this project? high interest rate loan for biogasster.	អំណាចគ្រប់គ្រងខ្ពស់
ហត្ថលេខា Signature	

ទំព័រ ២ របស់ ២២

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការប្រើប្រាស់កម្មវិធីបង្កើនផលិតផលកសិកម្ម
ថ្ងៃទី០៨ ខែសីហា ឆ្នាំ២០១៨ រវាងម៉ោង ៧:៣០ ព្រឹក ដល់ ១១:៣០ ថ្ងៃត្រង់
មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តតាកែវ

Evaluation form

NBP Local Stakeholder Consultation Workshop

ឈ្មោះ Name <i>Phat Phalit</i>	
ភេទ (ប្រុស/ស្រី) Gender (<i>male</i> /female)	
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting? <i>my impression is about technical aspect of biogas and benefits for women and bio-fertilization -</i>	<i>It is very good active workshop</i>
តើអ្នក "ពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you like about this project? <i>The process of biogas construction to ensure quality - and warranty - for farmers -</i>	<i>The quality can be used for more than 10 years.</i>
តើអ្នក "មិនពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you not like about this project?	
ហត្ថលេខា Signature <i>Phat Phalit</i>	

ទំរង់បាយកង់

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការប្រើប្រាស់ប្រាក់ប្រចាំខែជាមួយសមាជិកក្រុមប្រឹក្សាភិបាលស្ថាប័ន

ថ្ងៃទី០៨ ខែសីហា ឆ្នាំ២០១៨ រចនាសម្ព័ន្ធ ៧:៣០ព្រឹក ដល់ ១១:៣០ថ្ងៃរៀងរាល់

បណ្តុះបណ្តាលសមាជិកក្រុមប្រឹក្សាភិបាលស្ថាប័ន ខេត្តតាកែវ

Evaluation form

NBP Local Stakeholder Consultation Workshop

ឈ្មោះ Name	Klaing Bunna
ភេទ (ប្រុស/ស្រី) Gender (male/female)	Male
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	Suggest NBP to organise more LSCW
តើអ្នក "ពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you like about this project?	- Consultation and explore each other and sharing experience each other
តើអ្នក "មិនពេញចិត្ត" កម្មវិធីនៅត្រង់ចំណុចណា? What do you not like about this project?	LSCW is short-time (1/2 day)
ហត្ថលេខា Signature	

ទំព័រ ២ របស់ ទំព័រ

សិក្ខាសាលាពិគ្រោះយោបល់ស្តីពីការងារកសិកម្មដែលបានបង្កើតឡើងដោយ
 ថ្ងៃទី ០៨ ខែ សីហា ឆ្នាំ ២០១៨ រចនាប័ណ្ណ ៧:៣០ ព្រឹក ដល់ ១១:៣០ ថ្ងៃ ក្រុង
 មន្ទីរកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ ខេត្តកោះកុង

Evaluation form

NBP Local Stakeholder Consultation Workshop

ឈ្មោះ Name	Teng Rthy	ឈ្មោះ ប្រជុំ
ភេទ (ប្រុស/ស្រី) Gender (male/female)	Male	ប្រុស
តើអ្នកមានចំណាប់អារម្មណ៍យ៉ាងណាចំពោះសិក្ខាសាលានេះ? What is your impression about this meeting?	- Many benefits - LSCW is well organised	- បានចង្អុលបញ្ជាក់ ដល់ អ្នកចូលរួម - ការរៀបចំ ទាំង ទីកន្លែង
តើអ្នក “ពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you like about this project?	- Provide a lot of benefits to farmers	- ផ្តល់ ដល់ ចំណេះដឹង អ្នកចូលរួម - ការ ប្រកាស លើក
តើអ្នក “មិនពេញចិត្ត” កម្មវិធីនៅក្នុងចំណុចណា? What do you not like about this project?	- Need a lot of manure	- គ្រោង ការ លាង ទឹក
ហត្ថលេខា Signature		