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Indonesia Domestic Biogas Programme



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Annual Report

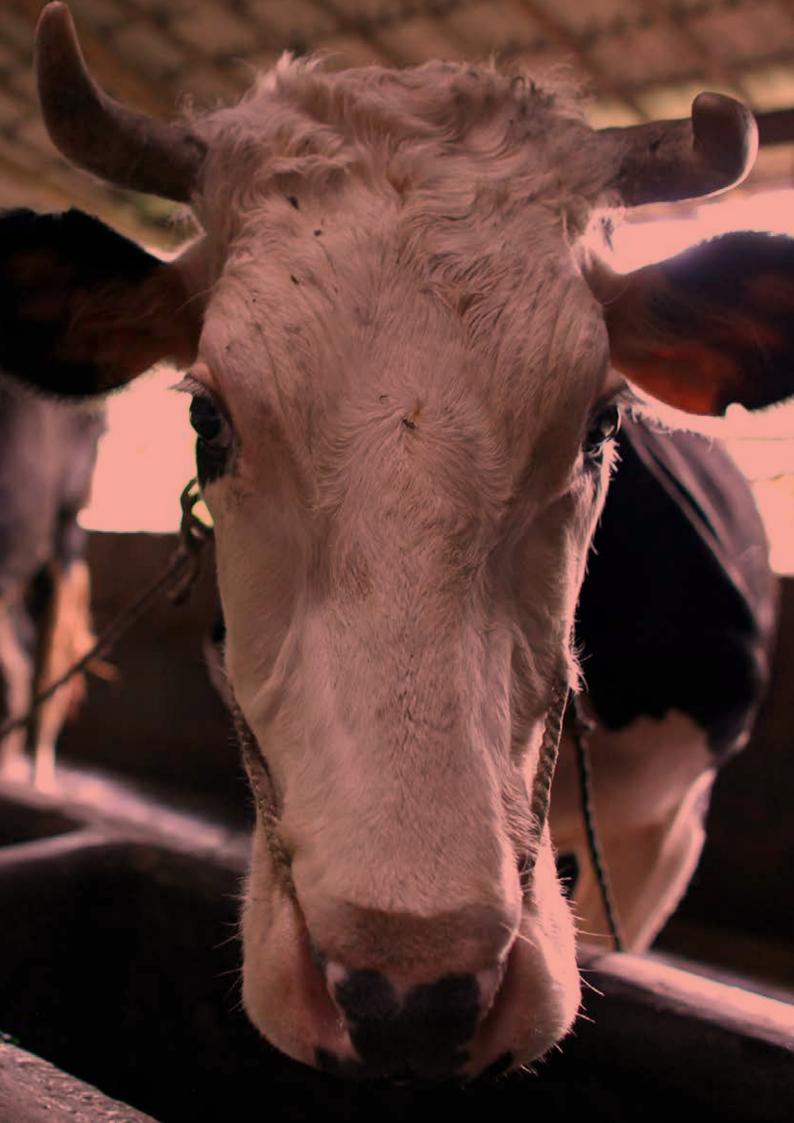
Indonesia Domestic Biogas Programme January – December 2016 31 March 2017



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Abbreviations

ASS After Sales Service (resulting in partner inspection reports)

BAPPEDA Regional Planning Bureau

Biogas Rumah (domestic biogas)

BSM Bank Syariah Mandiri

BSNI National Standardization Agency of Indonesia

CLP Climate Leadership Programme
CPO Construction Partner Organization

DAK Specific Allocation Fun (Dana Alokasi Khusus)

DGNREEC Directorate General of New Renewable Energy and Electricity Conservation

DOE Designated Operational Entity
ENDEV Energising Development

EUR Euro

FACET Finance for Access to Clean Energy Technologies in South and Southeast Asia

Gesselschaft für Internazionale Zusammenarbeit (Agency for International Cooperation)

Hivos Humanistic Institute for Cooperation with Developing Countries

IDBP Indonesia Domestic Biogas Programme

INSTIPER Institut Pertanian Instiper (Agricultural Institute)

Kiva U.S.-based non-profit organization that allows people to lend money via the Internet to low-

income / underserved communities

MDGs Millenium Development Goals

MEMR Ministry of Energy and Mineral Resources

MFI Micro Finance Institutions

NBPSO National Biogas Programme Support Office

NGO Non Governmental Organization

NTB Nusa Tenggara Barat (province)

NTT Nusa Tenggara Timur (province)

OEW Op Eigen Wieken

PBPO Provincial Biogas Programme Office

PC Provincial Coordinator

QI Quality Inspector

RBF Rabo Bank Foundation

RNE Royal Netherlands Embassy

RNE Royal Norwegian Embassy

R&D Research and Development

SOG Standard Operating Guidelines

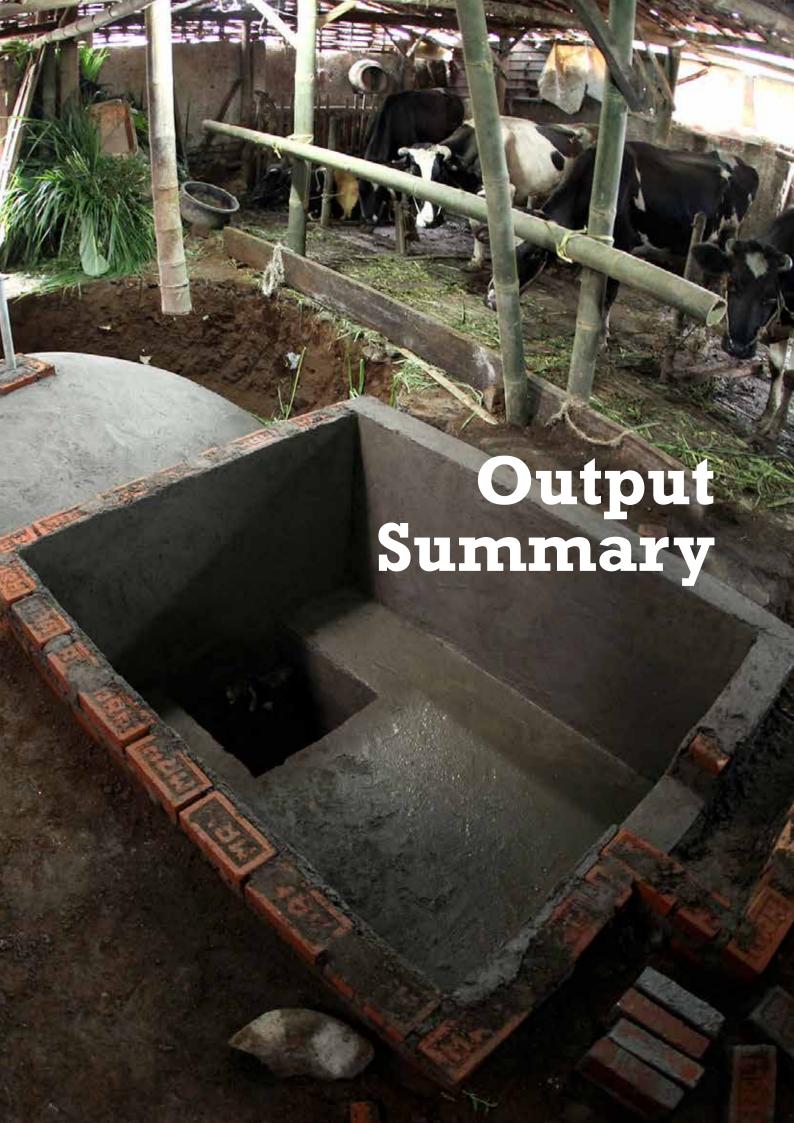
SNV Netherlands Development Organization

SME Small-Medium Enterprise

TOT Training of Trainers

UNDP United Nations Development Programme
UNEP United Nations Environment Programme

VER Voluntary Emssions Reductions



Programme start : 01 January 2016 Programme finish : 31 December 2016

Programme finish : 31 December 2016

Programme duration at the end of reporting period (31 December 2016): 12 (of 12) months (100%)

No.	Activities		Achievements					
1	Number of IDBP/BIRU	Total: 20,150	Total: 20,150 units					
	digesters		2016: 1,369 u	nits				
		-	er 2016: 2,174					
			y MCAI: 1,204					
		Supported by	y EnDev: 2,339	units				
2	Functioning rate	94%						
3	No of promotion	Community	Meeting on b	iogas awareness a	and slurry use			
	activities			ity meetings, 11 pro				
				,031 men: 57%, 9,81	9 women: 43%)			
		Community						
		Province	Number of meeting	Number of male participant	No of female participant			
		Lampung	22	411	78			
		West Java	32	3517	1867			
		Central Java & DIY	122	7698	7494			
		East Java	4	40	0			
		Bali	3	18	17			
		NTB	3	85	25			
		NTT	25	651	279			
		South Sulawesi	42	611	59			
		Total	253	13,031	9,819			
		Event & Part	icipation					
		Prov	vince	Number of	events			
		National		2				
		West Java		2				
		Central Java 8	& DIY	6				
		Bali		1				
		Lampung		1				
		East Java						
		NTB						
		NTT						
		South Sulawe						
		Total						

No.	Activities	Achievements	Remarks/target
		Production of promotion and other materials	
		Printing 32,076 pcs (brochure, newsletter, roll- materials up banner, back wall, goodie bag, kit, calendar, dummy book, etc)	
		 Website: biru.or.id , 51.478 visitors Twitter account 717 followers Facebook account 3,973 likes 4,487 friends SMS Hotline 52 SMS senders Email 74 senders 	
		Media	
3	No and % of households using credit	EUR 2,827,440 for 8,526 farmers	
4	No of credit providers (including cooperatives)	46 providers	
5	MFI development		
6	Subsidy disbursed	EUR 2,606,557	
7	No of construction partners	Cooperatives: 11 NGOs: 22 SMEs: 32 Total : 65 CPOs	
8	No of provinces, districts and sub-districts	10 provinces 130 districts 885 sub-districts	
9	No of masons & supervisors trained	Total: 1,172 masons and 205 supervisors January- December 2016: 59 masons and 17 supervisors	
10	No of users trained	Total: 14,488 users January- December 2016: 2,474 users (2,131 male, 343 female)	
11	No of plants inspected by CPOs (ASS = maintenance reports)	Overall: 23,179 inspections January-December 2016: 3,239 maintenance inspections	
12	No of plants inspected by BIRU staff (during construction and after construction & after ASS/ After Sales Service)	Overall: 9,085 inspections a. 907 inspections during construction b. 8,178 inspection after construction (6,757 plants already received ASS) January- December 2016: 1,949 inspections	

No.	Activities	Achievements	Remarks/target
13	Bio-slurry activities	 a. Bio-slurry trainings January-December 2016, attended by 2,474 users (2,131 males; 343 females). b. Bio-slurry ToT 1 times in Lembang West Java, attended by 17 persons from 3 CPOs West Java and 5 CPOs Lampung. c. Demoplots bioslurry in South Sulawesi constructed May 2016 	ed
14	Biogas appliances R&D	 Double burner stove efficiency Gasolec Genset modification Digester 2 m3 Digester for tofu waste Water drain Research to seek cheaper on metal content for Main Gas Pipe 	
15	Contribution from Gol	 Mining and Energy Department Pangkajene Island District, South Sulawesi: EUR 13,241 Environmental Agency Office Luwu Utara District, South Sulawesi: EUR 10,593 Mining and Energy Department South Sulawesi Province: EUR 81,179 Department of Public Works and Energy & Mineral Resources Department Central Lombok District: EUR98,305 Department of Public Works and Public Housing Yogyakarta Province: EUR 437,288 Mining and Energy Department Sumba Barat District NTT: EUR 24,717 Mining and Energy Department West Lombok District NTB: EUR 55,932 Provincial government of NTB Province: EUR 288,135 Department of Public Works and Public Housing, and Energy and Mineral Resources Department North Lombok District, NTB: EUR 123,728 	ct,
16	Biogas Expertise Centre activity	NA NA	
17	External training and workshop participation	ProvinceNumber of activitiesNational4Total4	
18	External workshops organized	ProvinceNumber of activitiesNational10Total10	

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No.	Activities		Achievements	Remarks/target	
19	Internal workshops/ meetings organized	National: 1. Annual Meeti 2. QI Meeting, B. 3. Regional Cons 4. AFA Meeting, 5. QI Training (Tail 2016 6. PC Meeting, J. 7. PC Meeting, J.			
20	No of coordination	Province	Number of Coordination Meeting		
	meeting with Gol	Bali	1		
		D.I. Yogyakarta	2		
		West Java	10		
		Central Java	1		
		East Java	2		
		Lampung	8		
		West Nusa Tenggara 5			
		East Nusa Tenggara	6		
		South Sulawesi	13		
		National	3		
		Total	51		



1. Introduction

This is the Annual Report of the Indonesia Domestic Biogas Programme (IDBP) to be submitted to the Royal Norwegian Embassy, for the period of January-December 2016. This report highlights the achievement of expected results from 2015 activities in accordance with the project agreement between HIVOS and the Embassy.

In 2015, another 3,543 units with support from EnDev programme and MCA-I have been installed in ten provinces, made a total of 20,150 digesters since 2009. Detail of program implementation is explained in detail below, based on the agreed framework



Domestic Biogas Digester/BIRU in South Sulawesi

2. Programme objectives

Overall Objective

The IDBP proposal presents its overall objective as follows: "to contribute to economic prosperity, and support the development of a green economy and mitigation of climate change in Indonesia through the scale up of a national domestic biogas sector development programme to improve waste management and emissions reduction in the livestock and dairy sector."

This means that the programme aims to expand the use of bio-digester technology by farmers in order to improve the waste management leading to reduction of greenhouse gas emission. The emission reduction calculation is done through a methodology approved by the Gold Standard Foundation. Proper and effective biogas sector development implies the close cooperation of relevant stakeholders (government, non-government and private sector) at all levels and that those stakeholders are sufficiently equipped to fulfil the necessary respective functions. The expansion of the biogas adoption by more farmers will create job opportunities in the biogas sector (contractors, masons, input suppliers, training institutions and the users themselves) and in the long run will help to support the protection of ecosystems and biodiversity as well as public health through reduction of indoor air pollution.

Specific objective

To promote the development of a market-oriented domestic biogas sector that provides access to affordable clean energy for livestock and dairy farmers through the dissemination and application of biogas technologies, with support for access to finance and enabling policy environment.



3. Institutional setting

The Indonesia Domestic Biogas Programme is working on the second phase. This second phase is partially funded by The Royal Norwegian Embassy under a Grant Agreement d.d. 4 December 2013 and an Implementation Agreement d.d. 10 July 2014 with the Directorate of Bio-energy at the Directorate General New Renewable Energy and Energy Conservation under the Ministry of Energy and Mineral Resources of the Republic of Indonesia. In implementing IDBP, Hivos receives technical support from SNV and works directly with a national non-government organization Rumah Energi. Apart from funding from the Norwegian Embassy, IDBP also receives funds from EnDev Programme.

A National Biogas Advisory Committee was established in July 2011 and the membership officially ended at the end of 2013. The membership is currently being re-considered by both DGNREEC and the programme. The mandate of the Committee is to monitor programme progress and endorse initiatives, including representatives of relevant government agencies, DGNREEC, civil society and the supporting donors. The Committee meets biannually and the first meeting in 2014 is scheduled to take place in September 2014. Prior to that, a meeting is scheduled in August 2014 to obtain interest and commitment from the previous committee members as well as potential members from different provinces.

In 2009 the programme established a National Biogas Programme Support Office (NBPSO) to support the Provincial Biogas Programme Offices (PBPO). The Provincial offices are responsible for local implementation, and are tasked to synchronize and liaise with provincial and district Energy agencies and cooperate with BAPPEDA (local development planning branches) and other relevant government agencies at province and district levels. Other tasks of the PBPO include: biogas promotion, capacity building and development of the biogas sector, quality control, slurry extension and gender mainstreaming.

Through its mandate to develop a market-based and sustainable biogas sector, IDBP has entered into participation agreements with over 50 construction partner organizations (CPOs) which are groomed to provide high-quality biogas digesters to cattle farmers interested in investing in biogas. The PBPOs provide assistance and have an inspection role in order to ensure quality and continuity in the development of the biogas services in each target region.

By 19 November 2012, as an effort to ensure a local ownership, HIVOS established Rumah Energi and since then has become the only direct implementing partner. Rumah Energi has a mandate to provide new renewable energy access to households in both rural and urban areas, as well as to support food sovereignty. Rumah Energi is gradually taking over the key responsibilities of IDBP. With this change, HIVOS and SNV take on a more focused role in managing and supervising the programme and strengthening Rumah Energi as an institution. Rumah Energi branches in the provinces also serve as PBPOs for IDBP.



4. Overview January – December 2016

4.1. Expected result 1:

4,000 livestock farming households have invested in their own quality assured bio-digester from certified providers, and implement improved waste management practice that reduce the environment and social impacts of production and consumption.

4.1.1. Indicator: 4,000 digesters installed in 6 provinces in line with IDBP standards for construction, appliances, user training, aftersales services and inclusion of women

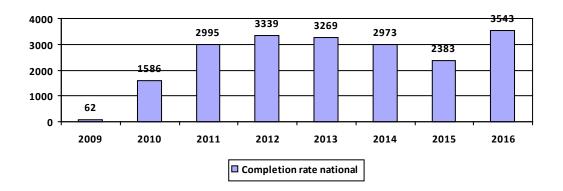
Province	Toward 2016	Actua	Total	
Province	Target 2016	MCAI	ENDEV	IOlai
BALI	300		121	121
BANTEN	600		2	2
WEST JAVA	600		101	101
D.I. YOGYAKARTA	700		643	643
CENTRAL JAVA	700		116	116
EAST JAVA	600		371	371
LAMPUNG	300		110	110
WEST NUSA TENGGARA	600	790	187	977
EAST NUSA TENGGARA	300	161	0	161
SOUTH SULAWESI	600	246	695	941
Grand Total	4,000	1,197	2,346	3,543

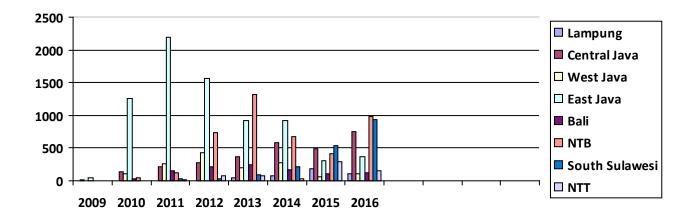
Tabel 1. Plan vs Actual Bio-digester construction per province in 2016

In 2016 the IDBP managed to secure the completion of 3,543 biodigesters in the ten provinces which adds to the total number of 20,150 biodigesters in the 10 provinces since the starting of the programme in 2009. The achievement of 2016 corresponds to the 89% rate of achievement of the targeted 4,000 units to be achieved by the end of 2016. It should be noted here that the IDBP is targeting a long term objective of 41,500 units by 2020 for the biogas sector to be established. The target is expected to improve annually to secure the intended objective (4,500 units is planned to be achieved in 2017).

After seeing the lowest completion rate of 2,378 units (76%) in 2015, the 2016 achievement indicates some positive note on the improved rate of completion, particularly in the provinces of South Sulawesi and NTB. In those provinces, the high rate of completion is contributed by joint-funding scheme with government programme for biodigester procurement. In those provinces, construction partners are also actively involved in the implementation of the national government special funding allocation (*DAK-Dana Alokasi Khusus*) for biogas procurement.

On the other hand, there has been a steady declining of completion rate in Java, with the very little achievement in West Java had grown a particular concern. In East Java, the potential member of Nestle supplier cooperatives with considerable investment capacity for biodigester purchasing seems to have reach the maximum level in 2013, leaving the very poor farmers that cannot access the biodigester with the current investment subsidy from IDBP and Nestle.





4.1.2 Functioning rate

Biogas installations are provided by CPOs, with quality control maintained by the IDBP Programme team. After sales services include user trainings, maintenance visits, and a 3-year warranty. Included in the quality insurance strategy is the provision of trainings on biogas plant construction for masons and supervisors. These hands-on trainings, which are key to ensuring construction quality, take around eight days and are attended by about twenty masons and supervisors nominated by CPOs. With reference to 2016 Biogas User Survey, the functioning rate of the IDBP biogas is 94 %. Primary factor contributes to the functioning rate is simply the continuous use of the biogas digester by the households.

4.1.3. Indicator: At least 30% of participants in community awareness meetings for the promotion of biogas are women

Community meeting is one important aspect of biodiester marketing by the CPO. With the expected 15% success rate, one CPO should reach at least 700 people to secure the demand of 100 biodigester in 1 year. It is recorded that the From July up to December 2015, 253 awareness meetings have been conducted in 10 provinces where IDBP is implemented.

IDBP considers women groups as central player in bringing awareness to the communities through the communities meetings and trainings. It is recorded that out of 22,850 participants, the women representation is 43% (9,819) from the total 22,850 people. The high percentage of women participating in these meetings mainly come from the provinces of West Java, Central Java, DIY and Bali. Of particular interest, women groups also played important part in making the best of extra time and resources in developing small household business.

4.1.4. Indicator: 100% HH at least one person receives user training; in at least 50% of HH a woman receives user training

A very important factor of a well-functioning biogas digester is how it is being operated and maintained by the user. Of the total of 3,543 biodigesters constructed in 2016, there were 2,474 users received trainings. Those were 2,131male (86%), and 343 female (4%). Overall, the IDBP provided users trainings to 14,488 households since 2009

in which 10,487 were male and 3,916 female. In taking into account the total 20,150 of bio-digesters constructed, 71% of households received training in which women counts for 19%.

4.1.5. Indicator: 150 masons and supervisors trained and certified in digester construction and maintenance

By 2016 the IDBP has provided trainings to 1,172 masons and 205 supervisors. In 2016 alone the trainings were organized for 59 masons and 17 supervisors received trainings on biogas construction. So far, around 30% of those number who are still remain actively involved in construction of digesters

4.1.6. Indicator: At least 65% of HH sell or apply bio-slurry for agriculture or fish rearing in a proper manner; at least 30% of bio-slurry processing/trade is conducted by women

Based on the result of the Biogas User Survey (BUS), 83% of the biogas users are already using bio-slurry as fertilizer. Of particular importance with regard to the survey findings is that there has been steady drop in the value of HH saving for energy spending from more than IDR 100,000 in 2009 to only IDR 42,222 in 2016.



Bio-slurry utilization as fertilizer in Lampung

The drop of value in energy saving can be explained by the disparity between the price of kerosene and LPG to that of biogas. At the start of the program, most farmers used to rely on kerosene for their energy consumption with a considerable higher price in comparison with the biogas. Following the intensive national campaign on kerosene to LPG conversion, most farmers had now change their source of energy to the government-subsidy 3kg LPG with is only a slight higher from the price value of biogas. After all, the survey found that by having biodigester, the HH can save the amount of IDR 35,272 from their expenditure for LPG.

Economic benefit from bio-slurry utilization				
Better quality of harvest result	86%			
Selling bio-slurry product	4%			
Additional income from selling bio-slurry per month : minimum/maximum (IDR)	50,000 to 400,000			
Average HH money saved for energy purchase (IDR)	42,222			
Average reduction on spending for energy (IDR) – among those who used before using Biogas				
Fire wood	59,700			
Kerosene	129,107			
LPG	35,275			
Responsibility of managing extra money form energ	y saving or additional income from bio-slurry			
1. Male	2. 12%			
3. Female	4. 66%			
5. Male & Female	6. 21%			

Tabel 2. Economic benefit for HH from energy spending and additional income generating activity as found in biogas user survey



GADING: MAKING THE BEST USE OF THE BROWN GOLD POTENTIAL

The benefit of bio-slurry has become more prominent to the existing biogas users in the IDBP areas. In fact, this side product of anaerobic digestion of farm and household residue has been dubbed as the brown gold in the Food and Agricultural Organization review document on the co-product of biogas production (see Lennart de Groot and Anne Bogdanski, FAO, 2003).



Titus Suranto, sharing his skills with his neighbors

In an effort toward maximizing the potential use of bios-lurry among biogas users, Hivos with Yayasan Rumah Energi and Wageningen University and Research Center agreed to come together as one consortium with the support from Millennium Challenge Account-Indonesia (MCA-I) to implement the Gathering and dissemination of information and green knowledge for a sustainable integrated farming workforce in Indonesia (GADINGproject) in the IDBP provinces of West Java, Yogyakarta, NTB and NTT (Sumba).

While the project is built build on the existing IDBP Programme, it aims specifically towards establishing: (1) integrated farming and waste management systems based on the optimized use of bio-digester and high-nutrient Lemna (duckweed) as organic fodder and fertilizer and (2) enabling environment for gender-responsive energy production with sustainable agriculture and aquaculture. One key component for the project is the extensive application and research of bio-slurry as the organic agent for the improved cultivation of Lemna as the source of livestock fodder and fish food. The GADING aims at contributing to economic prosperity

Since the starting of the project in November 2015, a number of bio-slurry-based business forerunners have grew exponentially from corners of villages. One of the pioneer is Mr Titus Suranto from village of Sumberadi, Yogyakarta who owns an 8 m3 biodigester since 2015. Following initial discussions and trainings with the GADING project team, he is determined to use bio-slurry for expanding his fish rearing business by means of applying bio-slurry as the basic fertilizer for fish pond and duckweed cultivation.

The result comes as quite a surprise for Mr Titus as he is able to secure a 0.5 month early harvest from his fish ponds with a considerable reduce in the spending for fish food and with lower mortality rate. Following good results from his fish ponds Mr Titus is now using the Lemna as the primary food source for his duck farming. As of now Mr Titus is one active trainer in his village for the bio-slurry-based husbandry and fish food production.

4.1.7. Indicator: 100% of targeted Quality Inspection visits completed (10% during construction; 15% after construction; 5% after ASS visits) and logged on program MIS

IDBP Provincial teams are responsible for monitoring activities, liaising with government, partnership monitoring and quality control. The Quality Inspector staff at provincial level is charged with the task to monitor appropriateness and quality of biogas construction, and support collection of preconstruction agreements, household agreements, completion reports, after sales services reports and quality inspection reports.

	Quality Inspection During Construction in 2016		Quality Inspection After Construction in 2016		Quality Inspection After ASS visits in 2016	
Target:	Achieved:	Target:	Achieved:	Target:	Achieved:	
354	298	532	1,651		258	

Table 5. IDBP Quality Inspection (Quality Checklist) in 2016

	ASS 1		А	SS 2
Year	Completed	Not Completed	Completed	Not Completed
2009	59	3	29	33
2010	1,575	11	1,318	268
2011	2,933	62	2,061	934
2012	3,185	154	2,533	806
2013	2,987	281	1,984	1,284
2014	2,299	673	662	2,310
2015	1,010	1,368	163	2,215
2016	331	3,212	0	3,543

Table 3. Number of digester received After Sales 1 and 2 from 2009 – 2016

4.2 Expected result 2:

The biogas sector has moved from demonstration to replication through increased capacity of existing and new providers to service the sector, with the adoption of product and service standards, quality assurance and monitoring, linkage to finance, and engagement of business intermediaries and partners in sector development.

4.2.1. 20 BSPs have established Participation Agreements and adopt IDBP Standard Operating Guidelines

In 2016, total 60 partners were registered as IDBP Construction Partners Organization (CPO) in which 15 of them are new partners.

No.	Name of new CPO	Province
1.	Yayasan Sastra Loka Samgraha	Bali
2.	CV. Mitra Bumi Abadi	East Java
3.	Yayasan Prakarsa Swadaya Masyarakat	East Java
4.	Yayasan Petta Haji Hasbullah	South Sulawesi
5.	Mason Group Jawa Barat	West Java
6.	MPM Muhammadiyah Luwu Timur	South Sulawesi
7.	P4S Shafana Cakrawala	South Sulawesi
8.	KSU Faeyza Bersama	South Sulawesi
9.	CV. Palapa Abadi	NTB
10.	Man Jadda Mason Group	NTB
11.	CV. Rehan Putra Palbon	South Sulawesi
12.	Yayasan Anugrah Illahi	West Java
13.	PT. Bhumi Asri Lumigar	West Java
14.	CV. Resky Utama Magasena	South Sulawesi
15.	Rumah Hijau Organik Mason Group	Sumba (NTT)

Table 4. List of new CPO of 2016

4.2.2. 20 BSPs have received technical support and capacity building for business and institutional development

The IDBP did not organize any management training for CPOs in 2016. The support was provided in terms of providing on the spot coaching support and assistance, especially to the new CPOs. In addition to the 15 partners, the 45 existing partners also required intensive assistance and monitoring, especially in the marketing efforts they undertook, as well as access to credit facility.

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4.2.3. 24 local Lending Partner Organizations (cooperatives, BRP, MFI) are linked to credit providers to channel loans for smallholder livestock enterprises

Difficulties in setting up a reliable credit line for the farmers is one of prominent challenge for securing the stable growth of the independent demand for biogas. The growth of the RBF and KIVA loan support have been developing quite slowly, while the remaining of Nestle funds had not met by the same enthusiasm of smaller farmer in East Java. In the period 2014 – 2016, the Nestle-IDBP partnership has disbursed a total loan amount of IDR 4.478.767.049 (equal to EUR 300.369) to 880 dairy farmers in East Java. Unfortunately the figures indicated a decrease in Nestle loan disbursement, compared to the period 2010 – 2013 as the remaining market segment is only for the poorer farmer households with less than 2 dairy cows ownership.

No.	Credit Provider	No of borrowers (person)		Credit Disbursed (IDR)			
INO.		2016	2017	2010-2017	2016	2017	2010-2017
1	KIVA	26	16	195	137,000,000	48,000,000	1,014,000,000
2	Credit Union	5	-	7	40,000,000	-	56,000,000
3	Rabobank Foundation	36	5	1155	304,416,500	44,085,000	5,473.042,000
4	Nestle	258	53	5664	1,342,076,323	243,429,000	26,192,177,848
5	KAN Jabung – East Java	12	10	442	57,563,000	30,600,000	1,814,083,538
6	BSM (KUD Setia Kawan) – East Java	3	-	856	20,250,000	-	4,589,523,000
7	Others	41	8	358	185,473,600	29,756,000	1,443,593,225
8	Total	381	92	8677	2,086,781,439	395,872,017	40,582,419,611

Table 5: Kiva loans disbursement 2014-2015

4.2.4. 100 entrepreneurial operations established and active in the processing and sale of bio-slurry; at least 30% of bio-slurry operations are run by women

The biogas survey had confirmed the rise of the importance of having bio-slurry for family economic improvement as the income generated from bio-slurry business has now outweighed the saving from HH energy spending. In this regard, the IDBP takes note the importance of changing the approach for the biodigester promotion that will make more emphasis on the comparative advantage of the bio-slurry. As affirmed by the survey, more women are now benefiting from the rise of the bio-slurry by taking active role in the management of the additional income from bio-slurry-based income generating activity.



IDBP POFILES: WOMEN WHO CHANGE WASTE INTO BENEFIT



Mama Linda Bili of Radamata Village in Sumba decided to have her digester in 2015 for the sole purpose of obtaining cooking fuel. Following her participation in the training on bio-slurry processing and business, she started develop her own liquid fertilizer business. Liquid bio-slurry is packaged on 5 liter jerry can for the price of IDR 50,000/can. As of today, the monthly average revenue from the sale of liquid bio-slurry in IDR 5,00,000.

In addition to processing bio-slurry, her other routine activities include growing celeries in polybags which she harvests on a weekly basis and sold in for additional monthly income of IDR 360,000. Currently, she is developing new aquaculture business that use the bio-slurry and lemna as basic ingredients for her fish and husbandry dietary source.



"I used to expect money given by my husband. Now I have earned my own income that I directly received and managed by myself."

There goes Mrs. Anah from Sunten Jaya Village, Lembang Subdistrict, West Java as she roared with laughter when asked who keeps and receive the money generated by the harvest of her vermiculture. That afternoon she was busy with sorting the earthworm that she was ready to harvest. Her hands were skillful and her face showed that she was passionate with her job. Since installing her own biogas reactor back in 2012, she has managed to reduce the time in assisting

her husband by two hours every day from collecting firewood. Last year she started to enhance the benefits of bio-slurry as the media for vermiculture to grow Lumbricus as the species of earthworm. According to her, in addition to be excellent culture media, fresh bio-slurry is also good as the source of food for the earthworm. She can now earn up to IDR 200,000 on a weekly basis from her sale of earthworm fertilizer.

Furthermore, Anah's diligence in managing the vermiculture has inspired otherhousewives in her neighborhood to follow suit while also participating in environmental conservation. "Now people have start making use of cow manures and no longer dump them to the river," Anah, who lives in the river bank of Cikapundung River, explained.



Mrs Atun, Far Right

"We are disadvantaged women," says Mrs Atun outside a cowshed near Mount Merapi, Yogyakarta. "We are so familiar with dead-ends we have to know all the shortcuts."

Mrs Atun is a member of the Yayasan Seraphine Bakti Utama, a Catholic foundation whose mission statement includes fostering entrepreneurship, encouraging education and planting an environmental conscience in society. A few years ago, working at one of four nurseries run by the organisation, she got thinking about milk.

A few years into making a milk business she hit a dead-end. LPG tanks are not a reliable commodity in rural Yogyakarta, and are often out of stock. Ibu Atun had heard about biogas, and so she contacted a local organisation to have one built. Yet, the promised gas was nowhere to be found. It turns out that the reactor was full of holes; the gas was just leaking out like steam from a pot of rice. Fortunately she stumbled upon a farmer in the neighbourhood using one of BIRU's biogas digesters. His biogas stove was aflame.

She then took the risk of selling two of the organisation's cows, and built the biogas digester. What happened then was beyond even her imagination. The biogas not only worked, but she was saving up to two million rupiah a month, since she no longer had to buy LPG. She invited all her other colleagues to the farm, and received unanimous support.

It was just a matter of time before her entrepreneurial knack influenced the lives of many others. The children and students whom her organization funds to go school, are now taking the bottled milk to sell before class. Some of them have brought in one and a half million rupiah a month, enough to fund their own education. Local women have got involved too, depositing the milk in small shops as they run their errands, and harvesting the profit on the way back.

No surprise, she is on to thinking about something else, bio-slurry, and she points to the black mounds of fresh earth waiting to be sold as organic compost. Her farm employs seven workers, regularly houses interns from as far as Vietnam and receives school visits.

4.2.5. Local foundation Rumah Energi is recognized by government as a core actor in biogas sector development in Indonesia

Rumah Energi is securing more recognition from the Indonesian Government as Rumah Energi plays important part in the finalization of Technical Guidance for Fixed Dome biodigester for the national biodigester procurement programme through the DAK funding. With the DGNREEC.

4.2.6. 5 new biogas appliance designs are developed, tested and certified for use.

Rumah Energi established a contract with Institut Pertanian Stiper (Instiper) Yogyakarta on the research for the development of two burner biogas stove. The purpose of development of the two burner stove is based on finding from the field monitoring whereby the existing biogas users mostly prefer to have a double burner stove to be able to cook more meals at one time. In this regard, the double burner biogas stove is expected to provide more attractive option for potential biogas user to access the IDBP biogas system. At the time of the writing of the report, the Instiper team is at the stage of preparing the prototype of the first product which is expected to be finalized in November.

Another system development done in this quarter is the development of the 2 m3 biogas digester for the small farmer with limited land plot. A 2m3 biogas demoplot was established on 5 September (construction started on 28 August) in the village of Keputran, Pringsewu District of Lampung Province. A functionality test was conducted in September 2016 resulted in the following:

- The daily average of biogas production: 600 to 700 liters with the average 15 to 20 kg of feeding/day
- By using the biogas stove that consumes 250 to 300 lt/hour of biogas, can support the cooking up to 1.5 hour per day. A promotion scheme for this product will be developed and expected to be ready by January 2017.
 Other appliances developed in 2016 are as follow:

4.3. Expected result 3:

Establishment of enabling policy environment for a sustainable biogas sector, through the development of new funding models for government interventions, standardization of biogas appliances, and establishment of a Domestic Biogas Expertise Centre

4.3.1. Two (2) biogas appliance designs (e.g. stove, lamp) are standardized and registered by the Indonesian government

Yayasan Rumah Energi signed a research cooperation project in November 2015 with local NGO Inovasi Untuk Indonesia in Bogor, West Java to pilot the development of 4m3 tofu waste biodigester. The location of the project is at the tofu production factory in the village of Leuweng Kolot, Bogor. The purpose of the research is to study the retention time for the production of biogas from the tofu liquid waste towards developing effective volume design for tofu biodigester. While the biodigester has been completely constructed in February 2016, there was delay in

the testing of the retention time due to the unawareness of the user to fill up the digester with the tofu waste. At the moment, YRE Biogas Technical Officer is monitoring the process of the waste filling and the retention process.

YRE also established a contract with Institut Pertanian Stiper (Instiper) Yogyakarta on 22 August 2016 worth IDR 11,900,000 on the research for the development of two burner biogas stove. The purpose of development of the two burner stove is based on finding from the field monitoring whereby the existing biogas users mostly prefer to have a double burner stove to be able to cook more meals at one time. In this regard, the double burner biogas stove is expected to provide more attractive option for potential biogas user to access the IDBP biogas system. At the time of the writing of the report, the Instiper team is at the stage of preparing the prototype of the first product which is expected to be finalized in November.

Another system development done in this quarter is the development of the 2 m3 biogas digester for the small farmer with limited land plot. A 2m3 biogas demoplot was established on 5 September (construction started on 28 August) under the user name of Si Alim (ID Plant: RGP 0078) in the village of Keputran, Pringsewu District of Lampung Province. The IDR 11,904.900 investment cost is provided by YRE for the construction.

A functionality test was conducted by YRE Biogas Technical Specialis and Lampung Quality Inspector staff on 27 September 2016 resulted in the following:

- The daily average of biogas production: 600 to 700 liters with the average 15 to 20 kg of feeding/day
- By using the biogas stove that consumes 250 to 300 lt/hour of biogas, can support the cooking up to 1.5 hour per day.

Another test is scheduled to be implemented in November to get the exact measurement of the production of the biogas and the maximum use of the system. A promotion scheme for this product will be developed and expected to be ready by January 2017.

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Some appliances developed and tested in 2016 are as follow:

- Gas tap. Status: approved for use in biogas installation by BIRU on June 24, 2016. Manufactured by At Tayseer (BIRU construction partner in Rembang, Central Java), this gas intake regulating device is installed between the biodigester and biogas stove.
- 2. Water drain. Status: approved for use in biogas installation by BIRU on 24 June 2016. Manufactured by At Tayseer (BIRU construction partner in Rembang, Central Java), this water release device is mounted between biogas digester and stove.
- 3. Modified carburetor for genset. Status: commissioning test by BIRU. The modified carburetor is designed and prototyped by Instiper (BIRU partner in Yogyakarta). The commissioning tests were performed 3 times between January to February 2016. The best calculation is that the consumption of 1,000 liter of biogas can run for 30 to 40 minutes of 1,000 watt genset. The next phase for BIRU is to approve the manuals for biogas genset carburetor design and manufacturing.







4. Biogas Brooder (Gasolec). Status: commissioning test by BIRU on 12 May 2016 in Lampung. The BIRU Biogas Specialist and developed the modified the LPG heater uplighter to be able to run on biogas. Another commissioning test was done in Rembang in June (Central Java). The next phase for BIRU is to approve the manuals for biogas brooder modification.



4.3.2. National and/or local governments allocate funds to support market-based domestic biogas dissemination

The Directorate General for New Renewable Energy and Energy Conservation (DGNREEC), Directorate Bio-Energy, of the Indonesian Ministry of Energy and Mineral Resources (MEMR) is a key national counterpart for the IDBP. The DGNREEC chairs the six-monthly BIRU programme advisory committee. Of particular importance it has also allocated funding and provided hands on support the implementation of activities, including setting up follow up meetings with stakeholders in a provinces.

In addition to role of national government, a specific reference also goes to the local government for their role in developing innovations on co-financing scheme for biogas dissemination. The IDBP is aware however, that although the current co-financing models with local governments provides supporting environment for business development of CPOs, and it is of particular importance for those CPOs to swiftly improve their management capacity in moving forward to access the local government tender procurement for biogas promotion in the near future.

Contribution from Gol	Province	Nominal (EUR)	Unit Digester
Dinas Pertambangan dan Energi (Agency of Mining and Energy)	South Sulawesi	13,241.53	25
Kantor Lingkungan Hidup (Office of Environmental Preservation)	South Sulawesi	10,593.22	11
Dinas Pertambangan dan Energi (Agency of Mining and Energy)	South Sulawesi	81,179.23	153
Dinas Pekerjaan Umum dan ESDM (Agency of Public Work and Energy and Mineral Resources)	West NusaTenggara	98,305.08	96
Dinas Pekerjaan Umum dan Perumahan Rakyat (Agency of Public Work and Housing)	Yogyakarta	437,288.14	600
Dinas Pertambangan dan Energi (Agency of Mining and Energy)	East Tenggara	24,717.51	50
Dinas Pertambangan dan Energi (Agency of Mining and Energy)	West NusaTenggara	55,932.20	99
Provincial Government	West NusaTenggara	288,135.59	510
Dinas Pekerjaan Umum dan ESDM (Agency of Public Work and Energy and Mineral Resources)	West Nusa Tenggara	123,728.81	219
Total		1,133,121.32	1763

Tabel 7. Government Agencies Financial Contribution for Bio-digester Construction in 2015

4.3.3. Establishment and functioning of a Domestic Biogas Expertise Centre

A Biogas Expertise Center was initiated in 2010 at the Ministry of Energy and Mineral Resources whose memberships are senior technical staff at the ministry. Within this center a Senior Biogas Advisor of SNV was assigned to provide training to those staff on various aspects of biogas i.e. technology, quality management, project management, monitoring, standardization and introduction on best practices on biogas projects around the region. As a result, a national biogas design and stove standards are available.

In 2015 IDBP under the support of SNV completed the design of medium scale digester (size 20m3, 50m3 and 100m3), which is specifically targeted for medium/home industry; namely tofu factory and large livestock farming. In addition to designing medium-scale biogas digester IDBP conducted series of research for the development of tofu waste digester. The research aims specifically at determining the amount of biogas produced per liter of tofu waste and the level of reduction of Chemical Oxygen Demand (COD) and Biological Qxygen Demand as parameter of water pollution.

4.3.4. National and local government, private sector and civil society engage actively in coordination of domestic biogas sector development, attending at least one regional or national coordination meeting annually

At the provincial level, stakeholders meetings were routinely held twice a year. At the national level, due to the time constraints of the different stakeholders, the National Biogas Advisory Committee meeting was not organized. Usually during these meetings the potential for cooperation between the BIRU programme and local government is discussed. In the National Biogas Advisory meeting, the BIRU programme was advised to match its planning cycle with that of the GOI. Therefore, the IDBP will be able to follow the biogas implementation plans from the GOI and tap into opportunities for cooperation.



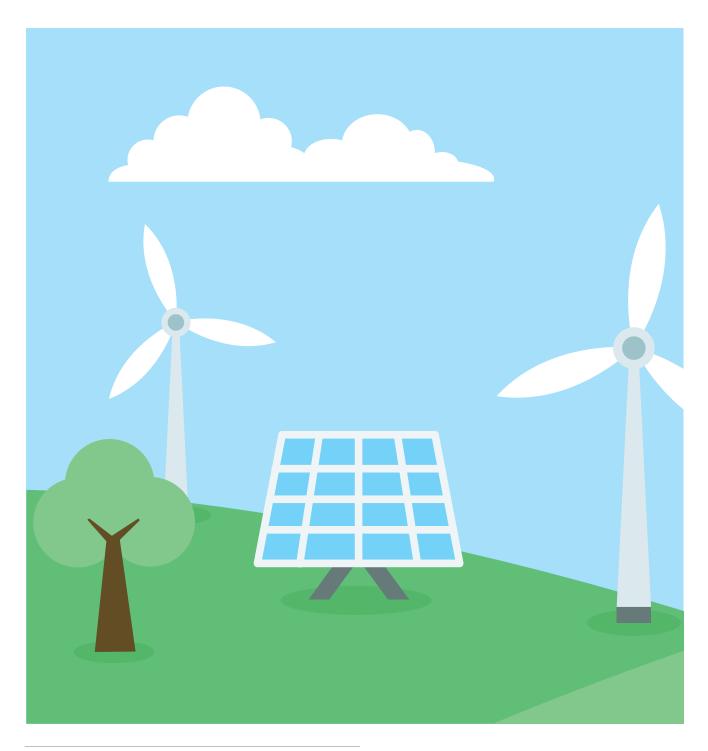
Other Relevant Activities

5. Other Relevant Activities

IDBP Carbon Credit Mechanism

The carbon credit mechanism is progressing. In 2015, a total 37,822.54 tC02e is reduced from the construction of 14,219 units digesters, or 105,878.64 tC02e from the total 16,597 units installed. With this amount of emission reduced, the BIRU program is able to monetize the carbon credit and used it for further development of biogas sector in Indonesia.

Some of activities that related with carbon credit mechanism are a Kitchen Performance Test (KPT) that conducted once every two years, which to define the efficiency biogas use with other fuels, and a leakage test which to define some fuels existence in a market when some people already using the biogas.



6. Challenges and lessons learned

6.1 Creative way to prevent Non Performing Loan

The CPOs are responsible for the execution and administering of KIVA loan to the biogas user groups. In order to minimize the risk of non-performing loans, some CPOs, namey LKM Rukun Makmur (Central Java), Yayasan Mitra Membangun Masyarakat Sejahtera (NTB) and Lembaga Pengembangan Pertanian Nahdatul Ulama (Lampung) assign their staff to work with borrowers group, creating a saving account for installment and collecting bio-slurry from each Kiva borrower to create bio-slurry related businesses.

6.2 Expanding cooperation with local financial Institutions

IDBP needs to perform advocacy and gain some partnerships with National Based MFIs Network such as Credit Union and Sharia Cooperatives and also commercial banking institutions to develop biogas sector in Indonesia. Because these institutions are linked with GoI policy to increase 25% mix of Renewable Energy sector in year 2025.

6.3 Conduct advocacy to Indonesia Finance Authority (OJK) and Bank Indonesia

IDBP needs to conduct advocacy to those Gol agencies, as financial institution policy makers. This advocacy should lead to build a recommending credit and policy scheme for commercial banks and micro finance institutions in developing biogas sector in Indonesia.







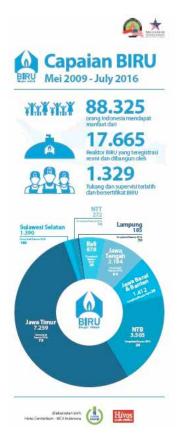
Annex 1: BIRU Office Addresses

		BIRU OFFICE ADDRESSES	
No	Province	Address	Phone and Fax
1	Jakarta	Jl. Pejaten Barat No. 30 A Jakarta 12550	Ph : +62 21 7821090 +62 21 7821086 Fax : +62 21 7804443
2	West Java	Jalan Tanjidor No 19 Turangga, Bandung Jawa Barat	Ph/Fax:+62 22 7308287
3	Central Java	JJI. Diponegoro no 17 RT 005 RW 009 Karang Anom Klaten Utara 57437, Jawa Tengah	Ph Fax :+62272-325968
4	East Java	Jl. Bunga Monstera 21, Kelurahan Tulusrejo, Kec Lowokwaru, Malang, 65119	Ph :+62 271 -486737 Fax :+62 271 471053
6	West Nusa Tenggara & Bali	Jalan Kebyar Nomor 7 Mataram, Mataram - Nusa Tenggara Barat	Ph/Fax: +62 370 630580
7	South Sulawesi	Jl. Todopuli Raya Timur Kompleks Villa Surya Mas Blok E/03 Kel. Borong Kec. Manggala Kota Makassar - SULAWESI SELATAN	Tlp/Fax:+62 411 831044
8	Lampung	Perumahan Bumi Puspa Kencana 3 Estate, Blok A no. 2, Rajabasa, Bandar Lampung	Ph :+62721-801 2903
9	Sumba	Jl. Ikan Hiu Samping TK Mutiara Perumnas, RT 41 RW 07 Kelurahan Kambajawa, Kecamatan Kota Waingapu, Nusa Tenggara Timur	Tlp/Fax:+62387-2564534

Annex 2: Promotion and Marketing Materials



Roll-up Banner BIRU



Roll-up Banner BIRU Benefit (Sundanese)



Roll-up Banner BIRU Benefit



Folded Brochure BIRU



Brochure BIRU Profile (bahasa)



Brochure BIRU Profile (english)



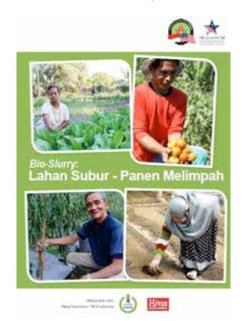
Brochure Bio-slurry Benefit



Brochure GADING Program



Brochure Bio-slurry Profile



Flipchart Bio-slurry



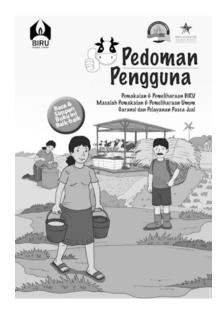
Newsletter



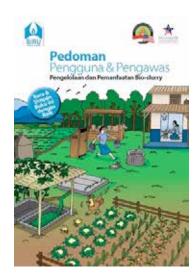
Sticker Biogas Usage



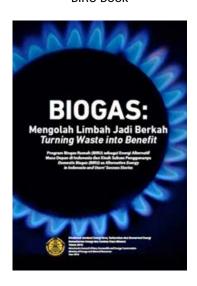
Manual BIRU Usage



Manual Bio-slurry Usage



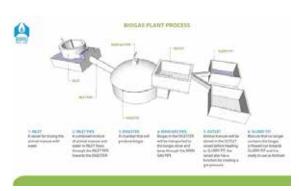
BIRU Book



Roll-up Banner Rumah Energi



Backdrop Biogas Process Plant



Backdrop Integrated Farming



Poster Lemna (Duckweed)



Goodie Bag



Tumbler



Calendar



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Annex 3: List of Construction Partners

No.	Name of Construction Partners	Province
	SME	
1.	CV Mitra Artha Utama	West Java
2.	CV Karsa Tekad Mandiri	East Java
3.	CV Qaryah Thayyibah	Central Java
4.	UD Bontomarannu	South Sulawesi
5.	CV Fitria Jaya Abadi	Lampung
6.	Mandiri Energi Mason Group	East Java
7.	Mandiri Mason Group	South Sulawesi
8.	Regol Mason Group	Lampung
9.	Dewata mason Group	Bali
10.	Langit Biru Mason Group	East Java
11.	Mitra Sarana Kuba Mason Group	South Sulawesi
12.	Sangkareang Mason Group	NTB
13.	CV. Bina Energi Mandiri Persada	Central Java
14.	CV. Ritma Green Sinergy	South Sulawesi
15.	Paroso Mason Group	NTB
16.	Persada Mason Group	East Java
17.	Harapan Bersama Mason Group	Lampung
18.	Mabarakka Mason Group	South Sulawesi
19.	LKM Rukun Makmur	Central java
20.	Pusat Inkubasi Bisnis Usaha Kecil (Pinbuk)	Central Java
21.	CV. H&B Putra Mandiri	Central Java
22.	CV. Nur Indah Karya	South Sulawesi
23.	CV. Pratama Butiti Jaya	South Sulawesi
24.	CV. Mega Muliya	South Sulawesi
25.	CV. Mitra Bumi Abadi	East Java
26.	Man Jadda Mason Group	NTB
27.	CV. Palapa Abadi	NTB
28.	CV. Rehan Putra Palbon	South Sulawesi
29.	CV. Resky Utama Magasena	South Sulawesi
30.	Rumah Hijau Organik Mason Group	Sumba
31.	PT. Bhumi Asri Lumigar	West Java
32.	Mason Group Jawa Barat	West Java
	NGO	
33.	Yayasan Mitra Membangun Masyarakat Sejahtera (YM3S)	NTB
34.	Yayasan Sumberdaya dan Lingkungan untuk Pelestarian Pembangunan (YSLPP)	NTB
35.	Yayasan Sion	Central Java
36.	Yayasan Trukajaya	Central Java
37.	Lembaga Pengkajian Kemasyarakatan dan Pembangunan (LPKP)	East Java
38.	Lembaga Pengembangan Pertanian Nahdatul Ulama (LPP-NU)	Lampung
39.	Yayasan Suara Bhakti	Central Java
40.	LPTP	Central Java
41.	Lembaga Pendidikan dan Pemberdayaan Anak Bangsa (LPPAB)	East Java
42.	Yayasan Lembaga Pembinaan Masyarakat Desa (YLPMD)	Lampung
12.	, asa zemoaga i emomaan masyarakat besa (i ii mb/	zampang

No.	Name of Construction Partners	Province
43.	Yayasan Manikaya Kauci	Bali
44.	Lembaga Sosial Waimaringi	Sumba (NTT)
45.	Yayasan Harapan Sumba	Sumba (NTT)
46.	Yayasan Forum Perempuan Sumba (Foremba)	Sumba (NTT)
47.	Yayasan Kontak Indonesia	West Java
48.	LSPI At-Tayseer	Central Java
49	Yayasan Sastra Loka Samgraha	Bali
50.	Yayasan Anugrah Illahi	West Java
51.	Yayasan Prakarsa Swadaya Masyarakat	East Java
52.	Yayasan Petta Haji Hasbullah	South Sulawesi
53.	P4S Shafana Cakrawala	South Sulawesi
54.	MPM Muhammadiyah Luwu Timur	South Sulawesi
	Cooperative	
55.	KAN Jabung	East Java
56.	KUD Semen	East Java
57.	KUD Sumber Makmur Ngantang	East Java
58.	KUD Tani Wilis	East Java
59.	Koperasi SAE Pujon	East Java
60.	KUD Sri Wigati	East Java
61.	KUD Tani Makmur	East Java
62.	KSU Bulu Saukang	South Sulawesi
63.	Koperasi Andini Luhur	Central Java
64.	Koperasi Jasa Peduli Kasih	Sumba (NTT)
65.	KSU Faeyza Bersama	South Sulawesi

Annex 4: List of IDBP Area (Subdistrict and District)

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
East Java	_	2010	Pujon, Ngantang, Jabung, Kasembon, Dau, Karangploso, Wagir, Singosari	1	8
		2011	Poncokusumo, Bantur, Gondonglegi, Pakis, Medowo, Lawang, Wonoagung	0	7
		2012	Bayem, Pait, Pondok Agung, Blimbing, Tumpang, Sukosari, Turen	0	7
	Kabupaten Malang	2013	Pagelaran, Kedung Kandang, Wajak	0	3
		2014	Sumber Manjing Wetan, Sumber Puncung, Gedangan	0	3
		2015	Ngajum	0	1
		2016	Wonosari	0	1
		2010	Kandangan, Kepung, Puncu, Pagu, Wates, Ngancar	1	6
		2011	Plosoklaten, Gurah, Kandat	0	3
	Kediri	2012	Medowo, Mlancu, Segaran	0	3
		2014	Kras, Ringinrejo	0	2
		2015	Mojoroto, Ngadilurih, Nganjuk	0	3
	Jombang	2011	Wonosalam, wulung, Bareng	1	3
	Joinbang	2012	Galengdowo	0	1
		2010	Gandusari	1	1
		2011	Semen, Wlingi	0	2
		2012	Sanan Kulon	0	1
	Blitar	2013	Kanigoro, Talun, Srengat, Garum, Doko, Ponggok	0	5
		2014	Wonodadi, Sukorejo, Udanawu	0	3
		2015	Kademangan, Udanawu	0	2
		2016	Selopuro	0	1
	Pasuruan	2010	Tutur, Purwodadi, Puspo	1	3
		2011	Grati, Blarang, Lumbang, Nongkojajar, Tlogosari, Wonosari, Nguling, Lekok	0	8

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2012	Ngembal	0	1
		2013	Pasrepan	0	1
		2011	Pacet	1	1
	Mojokerto	2013	Trawas	0	1
	T. d. on an arrow a	2011	Ngunut, Sendang, Pagerwojo, Kedung waru, Rejotangan, Sumber Gempol	1	6
	Tulungagung	2014	Karangrejo, Pucang Laban	0	2
	Kota Patu	2011	Junrejo	1	1
	Kota Batu	2014	Bumiaji, Batuaji	0	2
	Duckalinasa	2011	Krucil	1	1
	Probolinggo	2014	Maron, Bantaran, Tiris	0	3
	Tronggalok	2011	Bendungan, Pule, Kelutan	1	3
	Trenggalek	2015	Gandusari, Suruh	0	2
		2010	Senduro	1	1
		2011	Tempeh , Kunir, Kandang tepus, Kedung jajang	0	4
	Lumajang	2013	Sukodono, Padangan, Rowokangkung	0	3
		2014	Tekung, Pasirian, Pasirjambe	0	3
		2015	Randuagung	0	1
		2011	Ambulu	1	1
	Jember	2015	Wuluhan, Tanggul, Tempurejo, Tempursari, Gumuk Mas, Puger	0	6
		2016	Kaliwates, Sukorambi	0	2
	Ngawi	2011	Bringin, Geneng, Pitu, Ngawi, Ngrambe	1	5
		2014	Sine, Mantingan	0	2
	Ponorogo	2011	Pudakwetan, Sooko	1	2
		2012	Kauman, Krisik, Pulung, Ponorogo, Siman, Jambon	0	6

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2013	Ngrayun, Balong, Sukorejo, Slahung	0	4
		2014	Badegan, Mlarak, Bungkal, Babatan	0	4
		2016	Sampung	0	1
	Magetan	2011	Bulugunung, Panean	1	2
	Magetan	2014	Maospati	0	1
	Madiun	2013	Dolopo	1	1
	Gresik	2014	Sidayu, Dukun, Menganti	1	3
	Gresik	2015	Ujung Pangkah	0	1
	Banyuwangi	2013	Bangurejo, Siliragung	1	2
	Sumenep	2013	Ganding	1	1
			Total East Java	19	157
Central Java		2010	Kedawung, Plupuh	1	2
		2011	Gemolong, Sambirejo, Sragen	0	3
	Sragen	2012	Ngrampal, Miri	0	2
	Siagen	2013	Sambung Macan, Karang Malang	0	2
		2014	Masaran, Gondang, Sidoharjo	0	3
		2015	Gesi	0	1
	Tegal	2014	Margasari	1	1
		2010	Wonogiri, Ngadirojo	1	2
		2011	Giriwolyo	0	1
	Wonogiri	2012	Nguntoronadi, Tirtomoyo	0	2
		2013	Baturetno, Batuwarno, Jatipurno, Puhpelem	0	4
		2014	Wuryantoro, Sumberejo	0	1
	Banjar negara	2011	Bawang, Pejaweran, Manadadi	1	3

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2013	Mandiraja	0	1
		2011	Jumantono, Jatipuro, Jatiyoso, Tawangmangu, Matesi, Sambat	1	6
		2012	Mojogedang, Lempong, Jaten, Jenawi, Ngargoyoso, Jumapolo	0	6
	Karanganyar	2013	Kerjo, Bolong	0	2
		2014	Tasikmadu, Gondangrejo, Karangpandan	0	3
		2015	Kebakkramat	0	1
	Sukoharjo	2010	Nguter	1	1
	Sukonanjo	2011	Gatak, Bendosari, Palokarto, Tawangsari	0	4
		2011	Purwodadi, Wirosari	1	2
		2012	Krajan	0	1
	Grobogan	2014	Geyer	0	1
		2015	Pulokulon	0	1
		2016	Kradenan	0	1
		2010	Selomerto	1	1
	Wonosobo	2011	Kepil	0	1
	Wollosobo	2012	Wadaslintang	0	1
		2015	Mojotengah	0	1
		2011	Cawas, Kemalangan, Bayat, Jogonayan, Karanganom	1	5
		2012	Jogonalan, Kalikotes, kebon arum, Kebon dalem, Kemalang, Manisrenggo, Polanharjo, Prambanan, Trucuk, Tulung, Balerejo, Delanggu	0	12
	Klaten	2013	Karangdowo	0	1
		2014	Karangnongko	0	1
		2015	Besaran, Gantiwarno, Pedan	0	3
		2016	Jatinom	0	1
	Boyolali	2010	Mojosongo, Teras, Selo	1	3

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2011	Karanggede, Sambi, Simo, Musuk, Ampel, Klego	0	6
		2012	Andong, Bendungan, Cepogo, Angsuk, Kemusu, Lencohkelo	0	6
		2013	Banyudono	0	1
		2014	Sidomulyo, Nogosari	0	2
		2015	Nogosari	0	1
		2011	Dukun	0	2
		2012	Salam, Srumbung, Ngablak, Sawangan	0	4
	Magelang	2013	Borobudur, Grabak	0	2
		2015	Magelang Selatan, Mertoyudan, Muntilan, Pakis	0	4
		2016	Bandongan	0	1
		2010	Temanggung, Kaloran	1	2
	Temanggung	2013	Tlogomulyo, Kranggan, Parakan	0	3
	remanggung	2014	Bulu, Bansari	0	2
		2015	Gemawang, Pringsurat	0	2
		2010	Tengaran, Suruh, Ungaran, Sumowono, Gunung pati, Getasan, Pabelan, Bergas, Tembalang, Susukan	1	10
		2011	Plupuh, Ungaran Barat,Banyubiru, Kaliwungu	0	4
	Kabupaten	2012	Bancak	0	1
	Semarang	2013	Kedung Mungdu, Tuntang, Bandungan, Bawen	0	4
		2014	Ambarawa	0	1
		2015	Kebumen	0	1
	Calatina	2010	Argomulyo	1	1
		2011	Sidorejo	0	1
	Salatiga	2012	Tingkir	0	1
		2014	Sidomukti	0	1

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2011	Japah	1	1
	Blora	2012	Sambong	0	1
		2013	Ngawen	0	1
		2015	Jepon, Jiken	0	2
	Banyumas	2011	Sokaraja	1	1
		2011	Keling	1	1
	Jepara	2012	Mlonggo, Pakisaji, Pecangaan, Tahunan, Mantingan	0	5
	-	2013	Mayong	0	1
	Batang	2011	Subah, Tersono	1	2
		2012	Rembang	1	1
	Dombong	2013	Lasem, Pamotan, Sedan, Gunem	0	4
	Rembang	2014	Pancur	0	1
		2015	Krangan, Sulung	0	2
	Kendal	2011	Војо	1	1
	Kendai	2013	Singorojo	0	10
		2012	Gabus, Jakenan	1	1
		2013	Tayu	0	1
	Pati	2014	Wedarijaksa, Sukolilo, Pati	0	3
		2015	Donorojo, Juwana, Margoyoso, Tambakromo	0	4
		2016	Dukuhseti	0	1
	Domalana	2012	Pemalang	1	1
	Pemalang	2014	Randudongkal	0	1
	Kebumen	2014	Mirit	1	1
	Kudus	2015	Gebog	1	1

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2016	Dawe	0	1
	Tuban	2015	Bancar	1	1
	Brebes	2012	Paguyangan	1	1
	Purworejo	2016	Ngombol	1	1
Vo en relicente		2010	Pundong, Bambanglipuro, Jetis, Srandakan,	1	4
Yogyakarta		2011	Pleret	1	1
	Dantal	2012	Kretek, Piyungan, Banguntapan, Pandak, Pundong, Sedayu, Sewon	0	7
	Bantul	2013	Dlingo, Sanden, Imogiri	0	3
		2014	Pajangan, Srandakan	0	2
		2016	Kasihan	0	1
		2011	Nglipar	1	1
		2012	Panggang, Sapto Sari	0	1
	Cupupa Kidul	2013	Ponjong, Wonosari	0	2
	Gunung Kidul	2014	Playen, Patuk, Semanu, Semin, Tanjung Sari	0	5
		2015	Gedang Sari, Karang Mojo, Ponjong	0	3
		2016	Ngawen, Playen	0	2
		2010	Cangkringan	1	1
		2011	Sawangan, Ngluwar, Candi Mulyo	0	3
	Claman	2013	Turi, Ngemplak, Berbah, Tempel, Moyudan, Ngaglik	0	6
	Sleman	2014	Pakem, Gamping	0	1
		2015	Minggir, Mlati	0	2
		2016	Depok, Prambanan	0	2
	Kota Yogyakarta	2014	Gondomanan, Mantrijeron	1	2
	Kulon Progo	2012	Galur, Kokap	1	2

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2013	Kalibawang, Lendah	0	2
		2014	Nanggulan	0	1
		2015	Sentolo	0	1
		2016	Jatirejo	0	1
		-	Total Centra Java/Yogya	32	258
West Java		2010	Pangalengan	1	1
	_	2011	Kertasari, Pacet, Arjasari, Ciwidey, Pasirjambu, Majalaya	0	6
	Kabupaten Bandung	2012	Soreang	0	1
		2014	Cileunyi, Cilengkrang, Cimeunyan, Rancaekek, Cikancung	0	5
		2016	Ibun, Selokan Jeruk	0	2
	Banjar	2016	Pataruman	1	1
	Cianiur	2011	Gekbrong, Cipanas	0	3
	Cianjur	2015	Sukaresmi, Pacet	0	2
		2011	Cicurug, Sukaraja, Cibodas	1	3
		2012	Purabaya	0	1
	Sukabumi	2013	Sukalarang, Cikembar	0	2
		2014	Nyalindung, Surade	0	2
		2015	Kalapanunggal, Kabandungan	0	2
		2010	Lembang, Cisarua	1	2
	Bandung Barat	2012	Parongpong	0	1
		2014	Ngamprah	0	1
	Depok	2015	Sawangan, Tapos, Cipayung	1	3
	Берок	2016	Limo	0	1
	Garut	2010	Bayongbong, Cigedug, Bluburlimbangan, Cisurupan	1	4

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2011	Cikajang	0	1
		2012	Tarogong kaler, Selawi, Pamengpeuk, Karangpawitan	0	4
		2013	Cihurip, Banjarwangi	0	2
		2014	Cikancung	0	2
		2016	Karang Tengah	0	1
		2011	Ciater, Sagalaherang, Jalancagak	1	4
	Subang	2013	Ciasem	0	1
		2016	Cisalak, Tanjungsiang	0	2
	C I	2010	Tanjungsari	1	1
	Sumedang	2011	Pamulihan, Sukasari, Tandangsari, Jatinangor, Darmaraja, Parakamuncang, Cimanggung	0	7
	Purwakarta	2011	Bungursari	1	1
	Purwakarta	2014	Cibatu, Wanayasa, Manis, Cempaka	0	4
		2011	Nanggung, Cisarua, Megamendung	1	3
		2012	Bojong Gede	0	1
	Bogor	2014	Cariu	0	1
		2015	Kemang, Jasinga	0	2
		2016	Cibungbulang, Pamijahan	0	2
	Kota Bandung	2011	Dago, Puncrut	1	2
		2011	Sliyeg	1	1
	Indramayu	2012	Sindeng	0	1
		2014	Arjasari	0	1
		2011	Cigugur	1	1
	Kuningan	2014	Maleber	0	1
		2016	Kramat Mulya	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD -2016
		2011	Talun	1	1
	Cirebon	2012	Gempol	0	1
	Tasikmalaya	2012	Karangnunggal	1	1
		2013	Bojong Manggu, Tambun Selatan	1	2
	Bekasi	2014	Jati Sampurna, Cikarang Utara, Cikarang Pusat, Pondok Melati, Cibarusah	0	5
		2015	Babelan, Pondok Melati, Serang Baru, Sukakarya, Sukawangi, Tambun Utara	0	6
	Ciamaia	2014	Lumbung	1	1
	Ciamis	2015	Baregbeg	0	1
	Pangandaran	2015	Padaherang	1	1
	Davida da u	2011	Citeureup	1	1
	Pandeglang	2012	Bojong, Koroncong, Carita, Panimbang	0	4
Banten	Serang	2013	Waringin kurung	1	1
	Tangerang	2012	Jambe	1	1
	Lebak	2015	Cibadak, Warunggunung	1	2
DKI Jakarta	Jakarta Selatan	2012	Pancoran, Mampang Prapatan, Cikoko	1	3
			West Java (and Banten)	23	121
South Sulawesi	Enrekang	2011	Cendana, Maiwa, Enrekang, Anggeraja, Baraka, Buntu batu, Malua, Alla, Curio, Baroko, Masalle	1	11
		2015	Barru, Tanete Rilau, Balusu, Tanete Riaja, Barru	1	5
	Barru	2016	Mallusetasi, Soppeng Riaja	0	2
	5 .	2015	Bissappu, Eremerasa, Gantara, Gantarang, Pajukukang, Tompobulu	1	6
	Bantaeng	2016	Sinoa	0	1
		2011	Sinjai Selatan	1	1
	Sinjai	2012	Sinjai Timur, Tellu Limpoe, Sinjai Barat, Sinjai Tengah	0	4
		2015	Sinjai Utara	0	1

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2016	Sangiasseri	0	1
		2011	Bengo, Sua Baccoe	1	2
		2012	Kahu, Patimpeng	0	1
	Dana	2013	Amali, Tonra, Lamuru, Lappariaja	0	4
	Bone	2014	Barebbo, Awangpone, Cenrana	0	3
		2015	Mare	0	1
		2016	Libureng, Ponre, Tellu Siattinge	0	3
		2012	Simbang	1	1
		2013	Tompobulu	0	1
	Maros	2014	Tanralili	0	1
		2015	Camba, Bantimurung	0	2
		2016	Cenrana, Turikale	0	2
		2012	Galesong Selatan	1	1
	Takalar	2013	Polombangkeng Selatan, Polombangkeng Utara, Mappakasunggu	0	3
		2015	Mangara Bombang, Pattallassang, Polobangkeng Utara	0	3
		2016	Sonrobone	0	1
	Tana Taraia	2013	Makale Utara, Saogalla Selatan	1	2
	Tana Toraja	2014	Makale, Sangalla	0	2
	Torsialltara	2014	Tallunglipu	1	1
	Toraja Utara	2015	Pemmana, Penrang Takkalla	0	2
	Bulukumba	2013	Bulukumpa, Gantarang, Kajang	1	3
	DuiukuiiiDa	2015	Bontotiro	0	1
	Gowa	2013	Bontonompo	1	1
		2015	Bontorampa	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD -2016
		2016	Pontonomno Colatan Pontomarannu Manuiu	0	3
		2016	Bontonompo Selatan, Bontomarannu, Manuju	U	3
	Jeneponto	2013	Bangkala	1	1
	Jeneponto	2016	Rumbia	0	1
		2013	Gilireng	1	1
	Wajo	2014	Pammana	0	1
		2016	Majauleng, Penrang, Sajoanging, Sakkoli	0	4
	C	2013	Mario Riawa, Donri-donri, Lalabata	1	3
	Soppeng	2016	Lili Riaja	0	1
	Luwu	2015	Kamanre	1	1
	Luwu Timur	2015	Burau	1	1
		2015	Bone-bone, Mappadeceng, Sukamaju	1	3
	Luwu Utara	2016	Seko	0	1
	Sidenreng Rappang	2015	Baranti, Duapitue, Kulo, Maritengngae, Panca Rijang, Pitu Riawa, Watang Pulu, Watang Sidenreng	1	8
	Pangkajene	2014	Ma'Rang, Labakkang	1	2
	Kepulauan	2015	Balocci, Mandalle, Minasatene, Tondong tallasa	0	4
	Selayar	2016	Bonto Haru, Bonto Sikayu	1	2
	Pinrang	2016	Mattiro Bulu, Mattiro Sompe, Patampanua	1	3
	Pare-pare	2016	Bacukiki	1	1
	Palopo	2016	Wara Selatan, Wara Barat, Bara, Tellu Wanua, Mungkajang	1	5
			Total South Sulawesi	23	120
Nusa Tenggara Barat	Lombok Tengah	2010	Pujut	1	1
		2012	Batukliang, Jonggat, Kopang, Praya Barat, Pringgarata, Janapria, Praya Timur	0	7
		2014	Batukliang Utara	0	1
		2015	Praya, Praya Tengah	0	2

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2016	Praya Barat Daya	0	1
		2010	Gerung, Narmada	1	2
		2011	Sekotong, Lembar, Gunungsari, Lingsar, Batulayar	0	5
	Lombok Barat	2012	Labu api, Gunungsari, Lingsar, Sekotong, Senteluk	0	5
		2014	Kediri	0	1
		2015	Kuripan	0	1
		2011	Tanjung, Pemenang, Gondang	1	3
	Lombok Utara	2012	Bayan, Gangga, Kayangan	0	3
		2016	Tanjung Karang Barat	0	1
		2010	Suralaga, Labuhan Haji	1	3
	Lombok Timur	2011	Aikmel, Wanasaba, Sikur, Montong Gading	0	5
		2012	Pringgabaya, Pringgasela, Keruak, Jeruklegi, Selong, Wanasaba, Kota Raja	0	7
		2013	Masbagik, Terara	0	2
		2014	Kelayu	0	1
		2016	Sembalun, Suela	0	2
		2012	Mataram	1	1
	Mataram	2013	Sanubaya	0	1
		2015	Selaparang, Jempong Baru	0	2
		2012	Moyohilir, Moyo Utara, Tarano	1	3
	Sumbawa	2013	Labuhan Badas, Maronge, Lopok, Smapuin	0	4
		2015	Lunyuk, Margakarya, Moyohulu, Pungkit, Underwis	0	5
		2012	Seteluk	1	1
	Sumbawa Barat	2013	Pototano	0	1
		2014	Brang Ene, Brang Rea, Jereweh, Maluk, Taliwang, Rempe	0	5

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2013	Bima, Soromandi, Rasanae	1	3
	Kota Bima	2014	Palibelo, Bolo	0	2
		2015	Rasanae, Rasanae Timur, Soromandi	0	3
		2016	Asakota	0	1
	Sumbawa Barat	2016	Moyo Hulu, Utan	1	2
	Damanu	2013	Dompu, Kramat Mulya	1	2
	Dompu	2016	Kempo	0	1
			Total NTB	10	90
Bali		2010	Payangan	1	1
		2011	Ubud, Tegalalang	0	2
	Gianyar	2012	Blahbatuh, Tegal Kolong	0	2
		2013	Tampak Siring, Sukawati	0	2
		2016	Bitera	0	1
		2010	Tembuku	1	1
	V-l- D	2011	Susut, Bangli, Kintamani	0	3
	Kab.Bangli	2012	Sawan	0	1
		2015	Sidemen, Susut, Tragah, Mengwi	0	4
		2011	Abiansemal, Petang, Mengwi, Kertabuana	1	1
	Badung	2012	Kuta Utara, Abiansemal	0	2
		2013	Kuta Selatan	0	1
	Tabanan	2011	Selemadeg, Kerambitan, Baturiti	1	3
		2012	Penebel	0	1
		2013	Kediri, Slemadeg Timur	0	2
		2014	Marga	0	1

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2015	Pupuan	0	1
	121	2011	Klungkung, Banjarangkan, Dawan, Tagak	1	4
	Klungkung	2013	Banjaranekan	0	1
		2010	Tejakula, Gerokgak	1	2
	Dulalana	2012	Sukasadaya, Banjar	0	2
	Buleleng	2013	Kubu Tambahan, Seririt	0	2
		2016	Sawan	0	1
	Donnasar	2011	Denpasar Selatan	1	1
	Denpasar	2012	Denpasar Utara	0	1
		2011	Melaya	1	1
	Jembrana	2012	Negara	0	1
		2013	Mendoyo	0	1
		2011	Kubu, Bebandem	1	2
	Karang Asem	2012	Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya	0	5
	Raialig Aselli	2014	Pempatan, Abang	0	2
		2015	Bhuanagiri	0	1
	Selayar	2011	Payangan	1	1
Total Bali				10	57
Sumba (NTT)		2011	Wewewa Timur, Kodi	1	2
		2012	Weetabula, Loura, Wewewa Barat	0	3
	Sumba Barat Daya	2013	Tambolaka	0	1
		2015	Kodi Utara, Wewewa Tengah, Kalaki Kambe	0	3
		2016	Wewewa Selatan	0	1
	Sumba Timur	2011	Kambera, Waingapu, Pandawai	1	3

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2012	Kanatang, Lewa	0	2
		2013	Nggaha Ori Angu, Wulu Waijelu	0	2
		2014	Pinu Pahar, Kahangu Eti	0	2
		2015	Kambata, Melolo, Haharu, Wanga	0	4
		2016	Umalulu	0	1
		2012	Katikutana	1	1
	Sumba Tengah	2014	U Ratu Nggai Barat	0	1
		2015	Katikutana Selatan	0	1
		2012	Kota Waikabubak	1	1
	Sumba Barat	2014	Tana Riu	0	1
		2015	Loli	0	1
			Total Sumba (NTT)	4	30
Lampung	Dosawaran	2012	Padang Cermin	1	1
	Pesawaran	2013	Gedong Tataan	0	1
	Tulang Bawang	2013	Tulang Bawang Tengah	1	1
		2013	Pubian, Selagai Lingga, Sendang Agung, Seputih Banyak, Trimurjo, Kota Gajah, Seputih Raman	1	7
		2014	Seputih Agung, Terusan Nunyai	0	1
	Lampung Tengah	2015	Bandar Mataram, Bekri, Gunung Sugih, Kaliroja, Sekampung Udik, Seputih Mataram, Terusan Nunyai, Way Seputih, Way Pengubuan	0	9
		2016	Anaktuha, Punggur, Sendang Agung	0	3
	Kota Metro	2013	Metro Utara, Metro Timur, Metro Selatan	1	3
		2013	Batang Hari, Way Jepara, Pasir Sakti, Braja Selebah, Raman Utara	1	5
	Lampung	2014	Sekampung, Pekalongan	0	2
	Timur	2015	Bumi Agung, Kalipasir, Labuhan Ratu, Marga Tiga, Metro Kibang, Way Bungur	0	6
		2016	Purbolinggo, Marga Sekampung	0	2

Province	District/city	Year	Sub-district	Tot D 2009	Tot SD -2016
		2013	Natar, Jati Agung	1	2
	Lampung Selatan	2014	Sukabumi, Sidomulyo, Merbau Mataram	0	3
		2016	Penengahan	0	1
	Bandar	2014	Kemiling	1	1
	Lampung	2016	Rajabasa, Tanjung Karang Barat	0	2
	Pringsewu	2014	Adi Luwih, Gading Rejo	1	1
	Pesisir Barat	2014	Bengkunat	1	1
Total Lampung			9	52	
Total number of districts and sub-districts 2009-2015			130	885	

Annex 5: List of Credit Providers

1. Nestle Soft Loan

No.	Name of Credit Providers	Province
1	Koperasi SAE Pujon	East Java
2	KUD Sumber Makmur	East Java
3	KUB Sami Mandiri	East Java
4	KUD Jaya Abadi	East Java
5	KUD Tani Wilis	East Java
6	KUD Sri Wigati	East Java
7	LPKP	East Java

2. Rabobank Foundation (RBF) Soft Loan

No.	Name of Credit Providers	Province
8	KPSBU	West Java
9	KUD Puspa Mekar	West Java
10	KPGS	West java
11	KSU Andini Luhur	Central Java
12	KSP Tekun	Central Java
13	KUD Ngudi Luhur	Central Java
14	KSP Bal'ota	South Sulawesi

3. Kiva Biogas Loan

No.	Name of Credit Providers	Province
15	LKM Rukun Makmur	Central Java
16	Yayasan At Tayseer	Central Java
17	KSU Bulu Saukang	South Sulawesi
18	LPPNU	Lampung
19	YM3S	Nusa Tenggara Barat
20	MG Paroso	Nusa Tenggara Barat
21	CV. BEM Persada	Jogjakarta

4. Credit Union

No.	Name of Credit Providers	Province
	Puskopdit Caraka Utama	
22	CU Setia Bakti	Lampung

5. Others

No.	Name of Credit Providers	Province
23	Yayasan Trukajaya	Central Java
24	Yayasan Sion	Central Java
25	Koperasi Agro Niaga	East Java

Annex 6. List of joint cooperation Hivos and Government of Indonesia for biogas digesters construction

No	Name of MoU
1	MoU Hivos with Government Nusa Tenggara Barat 2016
2	MoU Hivos with District Government Lombok Barat Nusa Tenggara Barat 2016
3	MoU Hivos with District Government for Public Work Service and Energy and Mineral Resources Lombok Tengah Nusa Tenggara Barat 2016
4	MoU Hivos with District Government for Public Work Service and Energy and Mineral Resources Lombok Utara Nusa Tenggara Barat 2016
5	MoU Hivos with District Government for Energy and Mineral Resources Kabupaten Pangkajene Kepulauan 2016
6	MoU Hivos with Provincial Living Environment Luwu Utara Sulawesi Selatan 2015
7	MoU Hivos with Government Sulawesi Selatan 2016

Annex 7: List of Meeting and Workshop

South Sulawesi	
1 February 2016	Coordination Meeting with South Sulawesi Provincial Agency on Energy and Mineral
	Resources and CPOs
23 May 2016	Signing MoU with District Government of Luwu Utara for Biogas Program in Luwu
	Utara
23 May 2016	Biogas socialization with Bupati of Luwu Timur
28 July 2016	National biogas evaluation and consultation meeting, hosted by Directorate General
	of New and Renewable Energy of the Ministry of Energy and Mineral Resources
8 September 2016	Meeting with Bappeda (Regional Development Planning Agency) of Luwu Utara
6 September 2016	Meeting with representatives of Dinas ESDM of South Sulawesi and CPOs
14 September 2016	Meeting with the Head of Dinas ESDM of Luwu Timur
16 September 2016	Meeting with Head of Badan Pembedayaan Masyarakat Desa dan Kelurahan (Village
	Communicty Empowerment Agency) of Luwu Utara District
16 September 2016	Meeting with Luwu Utara District Environment Agency
4 November 2016	Meeting with Energy and Mineral Resources Agency of South Sulawesi and CPOs
	representatives
1 November 2016	Meeting with government agencies of Luwu Timur. To follow up the results
	of meeting with the Bupati in April, the government of Luwu Timur will allocate the
	district budget for the construction of 35 unit/year from 2017 to 2021
8 November 2016	Meeting with Bupati of Luwu Utara. The meeting was also attended by Head of
	District Planning Agency and MCA-I District Manager
17 October 2016	Inauguration of 1,000 biogas campaign in South Sulawesi
17 December 2016	The IDBP Construction Partner (CV Rezky Jaya Utama) organized a biogas promotion
	meeting in villages of Langa and Isse in District of Pinrang
21 December 2016	Launching biogas development campaign in District of Pangkep
NTB	
27 April 2016	Biogas Socialization meeting with Vice Governor of NTB
28 April 2017	Socialization Workshop/Stakeholder meeting with representatives of Bappeda of NTB
	and District Agencies NTB
30 August 2016	Meeting with Cooperation Bureau of the Office of the Governor of NTB

12 October 2016 Evaluation meeting with Energy and Mineral Resources of South Sulawesi and CPOs representatives on the progress of work for the completion of the work within the framework of the cooperation between IDBP and the provincial government 27 October 2016 Meeting with provincial government of NTB organized in the village of Aik Mual of Lombok Tengah district 12 October 2016 Inauguration of Biogas demplot in Lombok Timur NTT 14 June 2016 Signing MoU with District Government of Sumba Barat for construction of 50 units of biodigester under budget co-sharing scheme 15 June 2016 Biogas socialization meeting with Bupati and Head of Bappeda of Sumba Barat Daya 11 August 2016 Meeting with Head of Fishery Agency of Sumba Barat District 11 August 2016 Meeting with Cooperative Agency, Social Agency and Manpower and Transmigration Agency of Sumba Barat Daya District Meeting with Dinas ESDM Sumba Barat. Following the signing of MoU between 27 September 2016 HIVOS and District Government of Sumba Barat 2 November 2016 Meeting with Energy and Public Work Agency of Sumba Barat in Waikabubak 17 December 2016 Socialization and promotion event to village of Tema Tana of Sumba Barat district 18 October 2016 Under the invitation of the head of village of Kataka (Sumba Timur), the IDBP Team of Sumba and construction partner participated in the village development planning (Musrenbang) for 2017



Kantor Pusat BIRU

