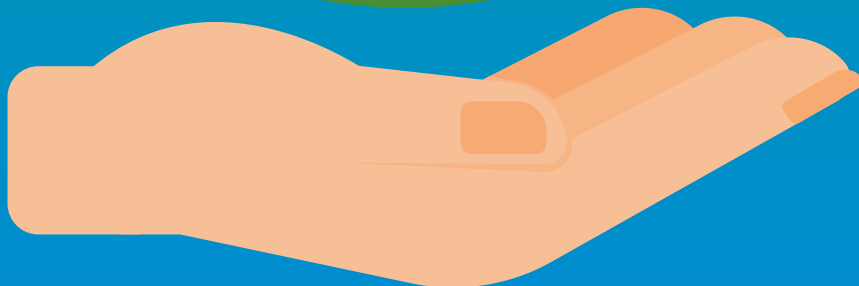


ANNUAL REPORT

Indonesia Domestic Biogas Programme

January – December 2017





Annual Report

Indonesia Domestic Biogas Programme

January – December 2017

13 April 2018





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Abbreviations

ASS	After Sales Service (inspection done by partner resulting in a report)
BANK JATENG	Central Java Development Bank
BAPPEDA	Regional Planning Bureau
BIRU	Biogas Rumah (domestic biogas)
BSM	Bank Syariah Mandiri
BSNI	National Standardization Agency of Indonesia
CPO	Construction Partner Organization
DAK	Specific Allocation Fund (<i>Dana Alokasi Khusus</i>)
DGNREEC	Directorate General of New Renewable Energy and Electricity Conservation
EnDev	Energising Development
EUR	Euro
FACET	Finance for Access to Clean Energy Technologies in South and Southeast Asia
GADING	Gathering and dissemination of information and green knowledge for a sustainable integrated farming workforce in Indonesia
GIZ	Gesellschaft für Internationale Zusammenarbeit (Agency for International Cooperation)
GoI	Government of Indonesia
Hivos	Humanistic Institute for Cooperation with Developing Countries
IDBP	Indonesia Domestic Biogas Programme
Inkopdit	Credit Union Central of Indonesia (<i>Induk Koperasi Kredit</i>)
INOFICE	Indonesian Organic Farming Certification
INSTIPER	Institut Pertanian Instiper (Agricultural Institute)
Kiva	US-based not for profit organization whose mission is connecting people through crowd-funding lending scheme to support development project to the low-income communities
LPPNU	Agricultural Study Institute of the Nahdlatul Ulama (<i>Lembaga Pengkajian Pertanian Nahdlatul Ulama</i>)
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)
PBPO	Provincial Biogas Programme Office
PC	Provincial Coordinator
PJT	Perusahaan Umum Jasa Tirta (Jasa Tirta Water Service Company)
PINBUK	Centre for Small Business Incubation (<i>Pusat Inkubasi Bisnis Usaha Kecil</i>)
QI	Quality Inspector
RBF	Rabo Bank Foundation
RNE	Royal Netherlands Embassy
R&D	Research and Development
SOG	Standard Operating Guidelines
SNV	Netherlands Development Organization
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

Output Summary



BIRU
biogas rumah

Programme start : 15 May 2017
 Programme finish : 31 December 2018
 Reporting period : 1 Januari – 31 December 2017

No.	Activities	Achievements	Remarks/target																																																
1	Number of IDBP /BIRU digesters	The BIRU database counts 2,296 units of which 1,020 built in MCA-I target areas and co-financed by MCA-I. In addition the project proliferated the construction of 344 additional digesters which are not registered in the database.Total number of digesters:2,296 + (0.15 x 2,296 = 344) digesters, in total 2,640 digesters.																																																	
2	Functioning rate	98% (Source: Biogas User Survey 2017)																																																	
3	No of promotion activities	<p>Community Meeting on biogas awareness and slurry use Total Activities: 41</p> <p>Community Meetings</p> <table border="1"> <thead> <tr> <th>Province</th> <th>Number of meeting</th> </tr> </thead> <tbody> <tr><td>Lampung</td><td>4</td></tr> <tr><td>West Java</td><td>1</td></tr> <tr><td>Central Java & DIY</td><td>13</td></tr> <tr><td>East Java</td><td>1</td></tr> <tr><td>Bali</td><td>9</td></tr> <tr><td>NTB</td><td>1</td></tr> <tr><td>NTT</td><td>4</td></tr> <tr><td>South Sulawesi</td><td>8</td></tr> <tr><td>Total</td><td>41</td></tr> </tbody> </table> <p>Event & Participation</p> <table border="1"> <thead> <tr> <th>Province</th> <th>Number of events</th> </tr> </thead> <tbody> <tr><td>National</td><td>2</td></tr> <tr><td>West Java</td><td>1</td></tr> <tr><td>Central Java & DIY</td><td>1</td></tr> <tr><td>Bali</td><td>-</td></tr> <tr><td>Lampung</td><td>-</td></tr> <tr><td>East Java</td><td>1</td></tr> <tr><td>NTB</td><td>1</td></tr> <tr><td>NTT</td><td>1</td></tr> <tr><td>South Sulawesi</td><td>1</td></tr> <tr><td>Total</td><td>8</td></tr> </tbody> </table> <p>Production of promotion and other materials</p> <table border="1"> <tbody> <tr> <td>Printing materials</td> <td>40,076 pcs (brochure, newsletter, roll-up banner, back wall, shirt, kit, calendar, dummy book, etc)</td> </tr> <tr> <td>Internet and mobile based</td> <td> <ul style="list-style-type: none"> Website: biru.or.id: 27,006 visitors Twitter account 799 followers Facebook account 6,459 likes; 2,441 friends SMS Hotline 10 SMS senders Whatsapp: 12 info@rumahenergi.org: 51 emails </td> </tr> <tr> <td>Media publication</td> <td> <ul style="list-style-type: none"> Radio promo Local newspaper Online National TV Channel National Magazine </td> </tr> </tbody> </table>	Province	Number of meeting	Lampung	4	West Java	1	Central Java & DIY	13	East Java	1	Bali	9	NTB	1	NTT	4	South Sulawesi	8	Total	41	Province	Number of events	National	2	West Java	1	Central Java & DIY	1	Bali	-	Lampung	-	East Java	1	NTB	1	NTT	1	South Sulawesi	1	Total	8	Printing materials	40,076 pcs (brochure, newsletter, roll-up banner, back wall, shirt, kit, calendar, dummy book, etc)	Internet and mobile based	<ul style="list-style-type: none"> Website: biru.or.id: 27,006 visitors Twitter account 799 followers Facebook account 6,459 likes; 2,441 friends SMS Hotline 10 SMS senders Whatsapp: 12 info@rumahenergi.org: 51 emails 	Media publication	<ul style="list-style-type: none"> Radio promo Local newspaper Online National TV Channel National Magazine 	
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No.	Activities	Achievements	Remarks/target
3	No and % of households using credit	EUR 139,337.35 for 427 farmers	
4	No of credit providers (including cooperatives)	Total 30 Credit Providers in 7 provinces 6 in West Java, 7 in Central Java, 3 in Jogjakarta, 6 in East Java, 5 in Lampung, 1 in Bali and 2 in NTB Provinces	See details in Annex 6
5	MFI development	In 2017, there are 6 new Credit Providers for bio-digester construction and 18.6% of total 2,296 farmers have obtained bio digesters from credit facilities: 15 farmers in West Java, 1 farmers in Central Java, 26 farmers in Jogjakarta, 346 farmers in East Java, 31 farmers in Lampung and 8 farmers in Bali with total loan disbursement EUR 139,337.35	
6	Subsidy disbursed	EUR 421,421	
7	No of construction partners	<ul style="list-style-type: none"> • 61 partners in 10 provinces. 2 are new partners. • 11 are cooperatives • 16 are SMEs • 21 are NGOs • 13 are Mason Groups 	
8	No of provinces, districts and sub-districts	10 provinces 130 districts 906 sub-districts, 21 new sub-districts	
9	No of masons & supervisors trained	42 new masons and 7 new supervisors trained in 2017. Total number of 1,224 masons and 212 trained 2009-2017.	
10	No of users trained	2,628 users (1,946 male, 682 female) out of 2,296 biodigesters. Total users trained 2009-2017: 17,736 (M: 12,608, F: 4768).	
11	No of plants inspected by CPOs (ASS = maintenance visit)	2017: 2,183 ASS done by CPO	Expressed in reports received and ASS fees paid.
12	No of plants inspected by BIRU staff (during construction and after construction & after ASS/After Sales Service)	2017: 1,139 inspections a. 148 inspections during construction b. 991 inspections after construction	
13	Bio-slurry activities	743 men and 715 women provided with bioslurry based product development. 48 bioslurry business provided with technical assistance 20 users with bioslurry business has supported with incentive 1 bioslurry fertilizer product, produced by user in West Java certified by Indonesian Organic Farming Certification	
14	Biogas appliances R&D	<ol style="list-style-type: none"> 1. Manual for LPG stove modification for biogas (finished). – Module for stove modification ready and training to CPOs to be organized in April 2018 2. Manufacturing of carburator manifold for biogas generator set (finished) 3. Research for the use of water hyacinth (<i>Eichhornia crassipes</i>) as primary feedins for biodigester has further been put into test with the construction of a 12m3 biodigester in Rawa Pening, Central Java under the cooperation with Hochschule für Forstwirtschaft Rottenburg. 4. 2 ATEC polyethylene-based biodigester test unit is now installed in Central Java for durability test 	One challenge in maintaining the operation of the biodigester by the household is the unavailability of replacement of biogas stove in a number of locations. In addressing the challenge, YRE is working together with Instiper Yogyakarta to develop manuals for modification of LPG stove for biogas installation that can ensure the efficiency level of 50% at the least.

No.	Activities	Achievements	Remarks/target																						
15	Contribution from Gol	<ol style="list-style-type: none"> 1. <i>Dinas Pertambangan dan Energi</i> (Agency of Mining and Energy) of NTB Province: EUR 148,857 2. <i>Dinas Pertambangan dan Energi</i> (Agency of Mining and Energy) of South Sulawesi Province: EUR 78,791 3. Special Allocation Fund of District of Wajo; South Sulawesi: EUR 3,945 4. <i>Badan Pemberdayaan Masyarakat Desa Kabupaten Bantaeng</i> (Agency of Village and Community Empowerment of District of Bantaeng); South Sulawesi: EUR 1,571 5. <i>Kantor Lingkungan Hidup Kabupaten Luwu Utara</i> (Agency of Environment Protection of District of Luwu Utara; South Sulawesi: EUR 6,706 6. <i>Kantor Lingkungan Hidup Kabupaten Sinjai</i> (Agency of Environment Protection of District of Sinjai); South Sulawesi: EUR 11,142 7. <i>ESDM D.I. Yogyakarta</i> (Agency of Energy and Mineral Resource of D.I. Yogyakarta); D.I. Yogyakarta; EUR 228,053 8. <i>Badan Lingkungan Hidup Kabupaten Badung</i>; Bali; EUR 5,752 9. <i>Badan Lingkungan Hidup Kabupaten Bangli</i>; Bali; EUR 6,065 10. <i>Badan Lingkungan Hidup Kabupaten Gianyar</i>; Bali; EUR 5,559 11. <i>ESDM Jawa Timur</i> (Agency of Energy and Mineral Resource of East Java); East Java; EUR 15,329 																							
16	No of coordination meetings with Gol	<table border="1"> <thead> <tr> <th>Province</th> <th>Number of Coordination Meetings</th> </tr> </thead> <tbody> <tr> <td>Bali</td> <td>-</td> </tr> <tr> <td>West Java</td> <td>13</td> </tr> <tr> <td>Central Java and Yogyakarta</td> <td>1</td> </tr> <tr> <td>East Java</td> <td>-</td> </tr> <tr> <td>Lampung</td> <td>2</td> </tr> <tr> <td>West Nusa Tenggara</td> <td>1</td> </tr> <tr> <td>East Nusa Tenggara</td> <td>6</td> </tr> <tr> <td>South Sulawesi</td> <td>12</td> </tr> <tr> <td>National</td> <td>-</td> </tr> <tr> <td>Total</td> <td>35</td> </tr> </tbody> </table>	Province	Number of Coordination Meetings	Bali	-	West Java	13	Central Java and Yogyakarta	1	East Java	-	Lampung	2	West Nusa Tenggara	1	East Nusa Tenggara	6	South Sulawesi	12	National	-	Total	35	
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Total	35																								

INTRODUCTION





This is the Annual Report of the Indonesia Domestic Biogas Programme (IDBP) for 2017. This year saw a lower digester completion rate compared to the previous year. A total of 2,296 units were built with support from EnDev and MCA-I funding. Including 35% of additional non-registered units which were proliferated from the BIRU programme, the total number of digesters counted in 2017 is 3,100. This completion brings the total of registered BIRU digesters to 23,612 systems plus 704 unregistered digesters installed in ten provinces. Details of the program implementation are explained below, based on the agreed framework.

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.”

With reference to the IDBP up scaling proposal for 2017 – 2018 the program will ensure that 61,750 people (36,750 for year 2017-2018) will benefit from gaining access to affordable clean energy through dissemination and application of biogas technologies. This is to be achieved particularly through the installation of 7,350 high quality biodigesters (including 750 non-IDBP digesters and 1,600 MCA-I funded digesters) in rural Indonesian households.

Through the management of biogas activities in the field it is expected that the program will contribute to the realization of 235 jobs created during the upscaling (2017-2018) with an expected total of 2,970 jobs created in the biogas sector (1,800 by the year of 2018). The job creation will include the realization of maximum use of the bioslurry for organic farming based increased crop yields as well as bioslurry business (composting, trade, vermin-culture, duckweed culture, mushroom culture, etc.).

Specific objective and output indicators

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

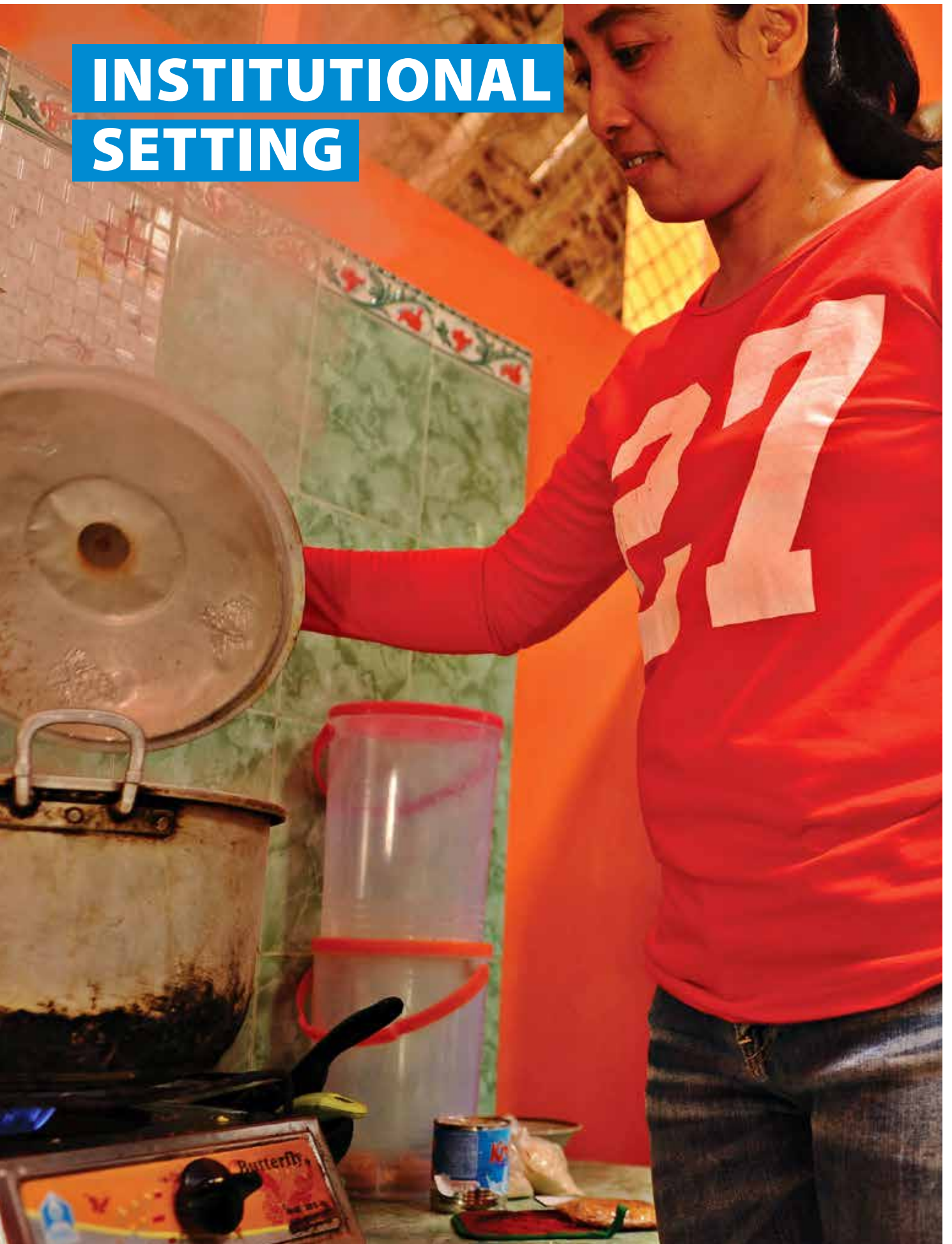


Output indicators	Achievement in 2017
7,350 households gain access to biogas technology through the installation of biogas system	The BIRU database counts 2,296 units of which 1,020 built in MCA-I target areas and co-financed by MCA-I. In addition the project proliferated the construction of 344 additional digesters which are not registered in the database. Total number of digesters: 2,296 + (0.15 x 2,296 = 344) digesters, in total 2,640 digesters.
>50% users pay more than EUR 350 for their digester	Average contribution of user at EUR 189.13. An increase from EUR 185 in 2016.
>50% user getting lower investment incentive	EUR 183.5 average subsidy per biodigester. An increase from EUR 107 in 2016.
Average price of digester	EUR 703. The average price of digester in 2016 was 731.55
80% users gaining income from bioslurry	74% (Biogas User Survey 2017)
Smaller digester (2m ³) for poorer farmers (10%)	0 (small digester is not popular)
40% women actively involved in biogas decision and maximization of its benefit	47% women actively involved (Biogas User Survey 2017)
15 new construction partners actively involved in biogas dissemination	3 new partners recruited in 2017, totaling 61 existing partners, 50 are active
100 new masons in 2018	42 masons and 7 supervisors trained in 2017
>90% biodigester functioning well	98%
YRE institutionally and financially self-reliant with EUR 0.5 million / year portfolio outside Endeavour	<ul style="list-style-type: none"> • Head of Embassy Fund, Embassy of New Zealand: CPO Capacity Development in Lampung (2015-2016). EUR 14,028 • Catholic Relief Service: Facilitation of Biogas Development and Training in the District of Atambua, NTT Province (2016). EUR 8,379 • Indonesia Climate Change Trust Fund: Climate Change Adaptation Through Management of Bioslurry in NTB (2016-2017). EUR 65,872 • Perum Jasa Tirta II of West Java: Citarum Bestari Phase I in Padamukti Village of West Java (2017). EUR 55,991 • SNV Berbak Green Prosperity in Jambi for the construction of 7 units of 30m³ digesters in Tangkit village of Muaro Jambi (2017-2018). EUR 74,501 • Perum Jasa Tirta II of West Java: Citarum Bestari Phase II in Padamukti Village of West Java (2018). EUR 79,870





INSTITUTIONAL SETTING



By 19 November 2012, as an effort to ensure a local ownership, Hivos established Yayasan Rumah Energi (YRE) and since then has become the only direct implementing partner. YRE has a mandate to provide new renewable energy access to households in both rural and urban areas, as well as to support food sovereignty. The establishment of YRE as local programme implementer has to ensure institutional sustainability.

For most part YRE seek to institutionalise the programme functions by building the capacity of public and private sector organisations, supporting the development of construction partners, linking microcredit providers to customers, and developing skilled human resources and training services for both men and women. In addition, the YRE is expected to be able to establish itself as the key partner to the Government in maintaining the relevance and the high quality standard for the expansion of biogas technology throughout Indonesia. While relevant with the IDBP framework, YRE will seek opportunities toward institutional financial self reliance through maximizing its resources in biogas programming with other partners.



OVERVIEW

January – December 2017



4.1. Promotion, marketing and construction of 7,350 biodigesters

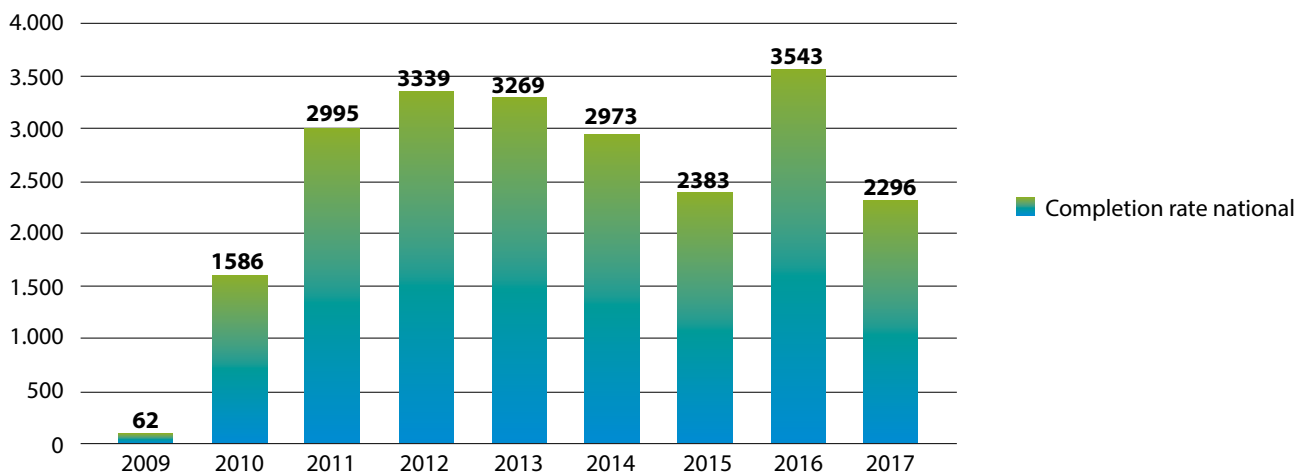
4.1.1 Number of biodigester constructed

The year of 2017 saw the completion of 2,296 systems in 10 provinces, with an average size of the digester of 5.38 m³ and the average contribution of user being at EUR 189.13. With an average size of the biogas family of 4.9 persons, the IDBP secures that 11,026 persons gain access from the completion of those systems. A general picture of the state of IDBP is provided in the following tables and charts:

Tabel 1. Plan vs Actual Bio-digester construction per province, 2017

Province	Target 2017	Actual 2017		Total	Paid in cash by HH	Paid in credit by HH
		MCAI	ENDEV			
BALI	540		147	147	14	8
WEST JAVA	557		43	43	6	15
CENTRAL JAVA and YOGYAKARTA	600		476	476	127	27
EAST JAVA	600		430	430	14	346
LAMPUNG	514		64	64	18	31
NTB	689	250	42	292	28	0
SUMBA	300	390		390	6	0
SOUTH SULAWESI	700	380	74	454	370	0
Grand Total	4,500	1,020	1,276	2,296	563	427

Diagram 1, Completion Rate

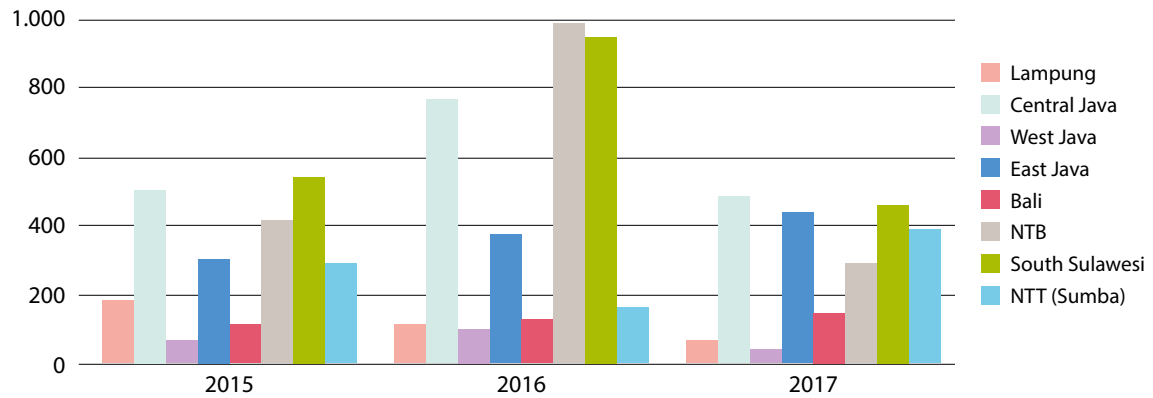


In total the IDBP has established 22,446 units in 10 provinces of Indonesia since the program inception in 2009, which provides an average completion rate of 2,494 units/year. The high numbers in the provinces of South Sulawesi, NTB and Yogyakarta mostly resulted from digesters procured by the government. In these provinces the IDBP financial contribution is maintained at the minimum for the provision of trainings and after service guarantee. The household demand is quite steady in Sumba at around 300 units per year.

This year witnessed a reduction of the government national budget for biogas through the special allocation fund (DAK, Dana Alokasi Khusus) scheme. This reduction in the national budget and the current change of national policy of the national government in dissolving the energy department at the district level has created considerable cuts in the government funds for biodigester procurement. However, the effective advocacy by the IDBP national and provincial offices in securing other government biogas funds at the provincial and district level were beneficial in maintaining the important 1,046 units of government biodigesters in NTB, South Sulawesi and Yogyakarta. The Central Java and Sumba teams were also successful in accessing the special funds allocated for village empowerment for the construction of biodigesters.

Due to the reduced amount of DAK funds this year's total number of constructed digesters is low, while the efforts undertaken by the BIRU team and partners to compensate this by stronger marketing efforts have been limited. This is evident particularly in the significant drop of community meetings organized by the CPOs. In retrospect, the progress for biogas loans has not moved in an expedite way as IDBP recorded that there are merely 427 units constructed under loans supported by existing credit partners (18%).

Diagram 2, Completion Rate by Province, 2015-2017



Quality inspection on biodigester in Kataka village of East Sumba

On the positive side, the IDBP has become more prominent in terms of establishing a one for all solution approach for renewable energy and environment conservation as well as bioslurry business development in biogas marketing to potential corporate demand. The successful implementation of a biogas pilot project with the water service company in West Java (Perusahaan Umum Jasa Tirta/PJT II, see box below) has been followed by the signing of an extension of the project to be implemented in 2018.

At a smaller scale, the Tonasa cement company of South Sulawesi also agreed to support the construction of 2 biodigesters in the district of Pangkep and is ready to provide other units for 2018. At the time of the writing of this report, a proposal for the implementation of a biogas solution for environment conservation in the district of Banggai of Central Sulawesi is in discussion phase with the Pertamina-Medco Joint Company.

Intensifying the bioslurry added value: organic business incubator in village of Padamukti, West Java



Organic fertilizer production shed in Padmukti village

It is widely anticipated that the ever increasing government biogas programming creates negative consequences for establishing a steady demand of biodigesters as many potential customers opt for the government to provide for their biodigester. This, combined with enormous subsidy for LPG has put quite a pressure on the market for biogas, which is solely paid on the basis of household energy expenditure saving. The same challenge is also apparent during the discussion with potential biogas corporate customer (private companies and middle to big size cattle farming) that expect the biogas to be able to create bigger economic value, possibly in terms of providing a steady source of electricity or fixed profit from the use or sale of bioslurry.

Against this backdrop, YRE held a series of discussions and undertook proposal submissions that included bioslurry value creation and organic business development to prospective corporate customers throughout 2017. The two companies that responded to the proposals in 2017 were Perusahaan Jasa Tirta II (PJT II/Regional Water Company-Jasa Tirta II) of West Java and the Joint Operation Body of Pertamina and Medco of Tomori (JOB Tomori) of Banggai (Central Sulawesi).

The cooperation with the PJT II was formally established in April 2017 under the Citarum Bestari program. Of particular interest of the PJT II is for the biogas to be able to offer a comprehensive solution to overcome the Cisangkuy river pollution (Cisangkuy river being the source for the company's water service). By means of introducing biodigester and organic bioslurry-based business development, it is anticipated to bring about positive behavioral change of the farmers regarding cattle waste management along the Cisangkuy stream. For the IDBP this cooperation is of particular importance to further promote the positive impact of bioslurry as an instrument for biogas marketing.

The EUR 55,991 project was concluded in December 2017 and resulted in the construction of 20 biodigesters in Padamukti village of Bandung Regency, West Java. The project was particularly successful in piloting the optimum use of bioslurry; first and foremost as the commitment of households in using the bioslurry (and not dumping it into the water stream) is included in the requirement for receiving their biodigesters. In addition to the 20 biodigesters, the project resulted in the following:

1. 1 unit of 'bioslurry organic fertilizer factory' that is being managed by a group of 3 biodigester (household) users with a capacity of 200 kg of solid bioslurry fertilizer per month.
2. 2 vermicomposting production units. The expected output is 100 kg of worm February 2018 and will boost to at least 250 kg/month in 6 months.

YRE and PJT II agreed to extend the cooperation for the second phase until December 2018 to examine the intended economic value creation of the bioslurry products (organic fertilizer and vermicompost product as well as the household crops) and further develop the market. The second phase will also look at potential additional construction of biodigesters by the funds accumulated from the investment and selling of bioslurry products by the end of 2018.

It is of particular importance that activities with PJT II will become a benchmark for comprehensive value development of bioslurry. In this respect the biogas campaign within the project was not done in the 'traditional way' of promoting the reduced household energy expenditure. Rather, the project provided the opportunity for creating demand for biodigester through intensive bioslurry value development activities by households in Padamukti village. In taking the best experiences of these activities, YRE has further promoted the approach for a similar project with JOB Tomori in 2018.

4.1.2. Community participation in awareness meetings and promotion

By June the IDBP recorded that 41 community meetings and other promotion activities were organized by construction partners and IDBP field staff and provinces. The IDBP also participated in a number of national events related to the promotion of the renewable energy and environment conservation campaign, namely:

1. Public talkshow on Bioslurry as the Blue Fertilizer in Pluit Mall, Jakarta on 12 May
2. Biogas Talk on Radio RPK FM, Jakarta on 26 May
3. Bioenergy Goes to Campus (National Bioenergy Campaign with DGNREEC), Makassar on 3 August
4. Youth Science Exhibition in Jungleland, Sentul, West Java on 14 to 23 Agustus
5. The 6th Indo EBTKE Conex, Jakarta on 13 to 15 September
6. IAAS Summit, Jakarta on 18 November

4.1.3. Functioning rate

The overall digester functioning rate stands at above 98 % as per the last Biogas User Survey in December 2017. Only about 2 percent of the digesters are not in operation due to technical reasons while the reasons for not using the biodigesters is mainly non-technical, i.e. household migration, sale or death of cattle¹.

4.1.4. Access to finance

As of 2017, IDBP saw the disbursement of EUR 139,337 loans to 427 farmers (18.6% of total 2,296 bio-digester) from various loan providers. The partnership with Rabobank Foundation is expanded to KSPPS (*Koperasi Simpan Pinjam Pembiayaan Syariah*) Laa Roiba; a Sharia-based Cooperative in Lampung and KSU (*Koperasi Serba Usaha*) Karya Nadhi in Bali. By the end of 2017, KSU Karya Nadhi has disbursed EUR 4,023 to 8 farmer members for their bio-digesters. While also in this year, KSPPS "Laa Roiba" has disbursed EUR 25,271 to 38 farmer members for their bio-digesters with permanent bio-slurry pits in one credit package.

Of particular interest, Laa Roiba started the scheme of biogas credit payment through bioslurry which is being developed with the cooperation with the *Lembaga Pengkajian Pertanian Nahdlatul Ulama*/Agricultural Study Institute of the Nahdlatul Ulama (). LPPNU, being the construction partner of IDBP in Lampung; plans to establish a bioslurry fertilizer production center in 2018 as part of the cooperation with Laa Roiba for establishin bioslurry business credit scheme. It should be noted here though that currently there has been delays in part of the LPPNU in promoting the scheme. An immediate follow up meeting between IDBP team of Lampung and Jakarta and the Laa Roiba and LPPNU is scheduled as a matter of priority before the end of the first quarter of 2018.

In mid-2017 IDBP has started collaboration with the sharia unit of Central Java Province-Owned Development Bank (Bank Jateng). With PINBUK (*Pusat Inkubasi Bisnis Usaha Kecil*/ Centre for Small Business Incubation)—one CPO in Yogyakarta, the IDBP proposed an integrated financing concept of cattle procurement and integrated farming via bio digester investment under the name of *Desa Bestari* with the total funds prepared at around EUR 700,000 (including for the management and monitoring cost for PINBUK and YRE). The planned kick-off of this partnership of August 2017 is postponed pending approval of the insurance collateral underwriter.

Meanwhile, the total amount of EUR 70,362 of KIVA loan is being used by 210 farmers in 5 provinces. It is unfortunate that for the past two years, the IDBP recorded EUR 25,890 (41.33%) of overdue in loan repayment which were not solvable by mid-2017. This was followed by the suspension of another loan submission by KIVA. After a coordination meeting with KIVA in September 2017, IDBP has conducted a borrower audit process in all KIVA lender groups to secure the repayment commitment of all groups; resulting in 91.43% of active KIVA Borrowers still being committed to repay the loan with re-scheduling. In retrospect, the other loan had to be defaulted due to natural disaster (*Force Majeure*) and the inappropriate selection of borrower causes. An important note from the audit is that the lack of commitment by CPOs to send staff in making the collection of repayment of groups contributed to the high number of delinquent cases. In making the best of this lessons, the provincial offices under the supervision of IDBP national office are charged with the task to collect the payment to the borrowers.

¹ The survey found 15% drop-off rate. This rate indicates that 15% of 267 sample households could not be interviewed because their biogas digesters are no longer in use. From 15 % drop-off rate, only 2% because of technical problems (leakage, broken water drain), meanwhile for other 13% because of non-technical problems.

Table 3. KIVA Biogas Loan Progress in 2014 – 2017

Provinces	KIVA Loan Disbursement (EUR)				Loan Repayment	
	2014 - 2017	No. of Biogas Borrowers	2017	No. of Biogas Borrowers	% of paid installment	% of delinquent
1 Central Java	16,759	42	0	0	58.63%	41.37%
2 Jogjakarta	15,728	68	6,916	33	99.96%	0.04%
3 NTB	15,329	41	0	0	49.35%	50.65%
4 Lampung	21,547	54	0	0	34.09%	65.91%
5 South Sulawesi	998	5	0	0	100.00%	0.00%
Total	70,361	210	6,916	33	58.67%	41.33%

Discussion with the Credit Union network also provided further opportunity to reach IDBP intervention in Flores and Timor Islands of NTT Province. The preliminary scheme between INKOPDIT and IDBP is to pilot a full biogas loan scheme without the provision of investment incentive in selected areas in Flores and Timor. The IDBP contribution to the pilot scheme will be accounted for through the provision of construction training to masons under the CU supervision in the areas and monitoring on quality of work. As such, CUs will have to devise a comprehensive productive loan package for biogas for the member. This scheme has been tested with CU Damita of Yogyakarta for the construction of 12m³ biodigester in Manggarai District of NTT Province in November. This pilot has received positive response from CU Damita's farmer members. Twenty persons have registered and will be served with bio-digester construction in the first quarter of 2018.

Tabel 4. Loan disbursement for biodigester, 2010- 2017

No.	Biogas Credit Provider	Number of borrowers (person)		Biogas Loans Disbursed (EUR)	
		2017	2010-2017	2017	2010-2017
1	KIVA	25	210	5,253	70,361
2	Credit Union	2	9	738	3,172
3	Rabo(Bank) Foundation	54	1,151	28,559	387,375
4	Nestle	238	5,805	77,479	1,784,987
5	KAN Jabung – East Java	108	579	27,307	165,951
6	Others	0	129	0	26,634
	Total	427	7,883	139,066	2,438,480

4.2. Capacity development, quality assurance and monitoring

4.2.1 Partnership with Construction Partners

IDBP aims to establish strong, professional and business-oriented partners for biogas construction and maintenance services. In spite of various efforts, IDBP has noticed a drop in performance of the construction partners in biogas promotion and marketing. Much of the challenge is related with relatively low management capacity of many of the CPOs, which is apparent in the lack of organization appropriate activity and financial planning and recording. As a result, many of the CPOs rely heavily on IDBP program support for organizing promotion meetings/event and tend to lack the initiative in maintaining proper customer relations and undertake product innovation.

A more positive development is that some CPOs have developed good relations with the government for securing government budgets for biogas programming. A number of CPOs in Yogyakarta, South Sulawesi and NTB are now quite proficient in drafting biogas proposals with clear setting of selection criteria, timeline and budget details to a number of government agencies at the provincial and district as well as village level.

Two mason groups in Lampung i.e Harapan Bersama and Regol Mason Group have gone further in establishing their own bioslurry businesses with proper management and better financial planning and recording. The improvement in their capacity resulted from the assistance and coaching facilitation by YRE under the support from the Embassy of New Zealand Head of Mission Fund of EUR 12,647. In order to obtain the best results in Lampung it is planned to have the Harapan Bersama and Regol Mason groups to play part as facilitator for other potential and committed CPOs in this respect.



Liquid bioslurry production in Garut, West Java

4.2.2. Investment incentive administration

The IDBP target to reduce the investment subsidy by half since 2016. While there has been significant subsidy reduction resulting from the co-sharing scheme with the government biogas projects, the overall subsidy of 2017 remains high particularly due to the high subsidy provided for construction in Sumba. January until December 2017, IDBP disbursed EUR 421,418.5 for investment incentive that comes under different account for each provinces.

Tabel 5. Subsidy disbursement by source of funding, 2017

Description	Source of funds (EUR)				Total
	Hivos-Endev (Carbon) for Lampung, West Java, Central Java, Bali	MCA-I (TERANG Project) for NTB, South Sulawesi, Sumba	Endev (Proponent to TERANG Project) for NTB, South Sulawesi, Sumba	Nestle for East Java	
Biogas-investment subsidy	-	68,980.9	-	64,380.95	133,361.8
Sumba-investment subsidy	-	97,657.68	32,660.29	-	130,318
Endev-Investment subsidy	106,867.1	111.9	50,762.62	-	157,741.6
	106,867	166,748.9	83,422.6	64,380	421,421.5

4.2.3 Mason and Supervisor Training

In 2017, a total of 42 masons and 7 supervisors were trained out of the plan of 100 new masons trained. Sumba CPOs are in the top place for adding 25 new masons with regard to the increasing demand resulting from the effective promotion by the CPOs. The number add to the total of 1,224 masons and 212 supervisors that have been trained by the IDBP since 2009.

Tabel 6. Number of masons and supervisors trained in 2017

Province	Number of persons	
	Male	Female
Yogyakarta	5	-
Sumba	25	2
South Sulawesi	17	-
Total	47	2

4.2.4. Users training

The CPOs are responsible in providing one day training for biodigester operation and maintenance. Women member of the households are encouraged to participate in the training that includes the feeding of digesters, control of gas leakage and minor repairing techniques as well as bioslurry utilization. In 2017 there were 2,628 users that got User and Bioslurry Training of which 682 are women (26%). In total the user and bioslurry trainings have been provided to 17,736 people (male: 12,608, female: 4768).

4.2.5 Quality control of digesters

In ensuring the full functioning of the biogas system the IDBP maintains a high standard for quality work by its partners. With regard to the total completion of 2,296 units, the minimum Quality Inspection that needs to be accomplished is at 571 number of inspection.

In 2017 the provincial quality staff completed the inspection of 1,139 units (148 units during construction and 991 after construction) that amounts at 199% of 571 target of quality inspection. In taking into account the target of 1,650 quality inspection in the IDBP upscaling proposal (3,300 quality inspection for 2017-2018), this year saw the 69% fulfilment o the target. Overall, the IDBP had managed to complete 10,565 quality inspections out of the target of 5,612 inspection from 2009 to 2017 (thus 188% target achievement).

Overall, the IDBP had managed to complete 10,565 quality inspections out of the target of 5,612 inspection from 2009 to 2017 (thus 188% target achievement).

Table 7. Number of biodigester inspection

Quality Inspection: 2017					Quality Inspection: 2009-2017				
During construction		After construction		Total (%)	During construction		After construction		Total (%)
Target: 10%	Achieved (%)	Target: 15%	Achieved (%)		Target: 10%	Achieved (%)	Target: 15%	Achieved (%)	
227	148 (65%)	344	991 (288%)	1,139 (199%)	2,245	1,080 (48%)	3,367	9,485 (281%)	10,565 (188%)

4.2.6 After Sales Service

After sales service is an important activities to secure the continued operation of biodigesters. The IDBP procedure rules that each biodigester should be visited by CPO two times in two years after complete installation. The objective of the visit is to discharge the obligation of the CPOs to provide maintenance service and collecting information of digester as part of IDBP monitoring.

From the total 22,446 biodigesters, the ASS 1 has been fulfilled for 15,881 units (70%) while the ASS 2 has been provided to 13,885 units (61%). The gap between biodigester completion and after sales visit is getting higher since 2016, particularly due to the emphasis of CPOs in pursuing completion number for government biogas contract. Series of reminder and notification had subsequently been circulated to CPOs for discharging their duty in performing the maintenance visit. Intervention by the YRE had been taken in direct appointment of mason/supervisor for completing the ASS visit, particularly for biodigesters constructed in 2009-2014. Looking at the result in catching up the number of ASS of 2009-2014 units, another round for direct assignment of supervisor is expected for units constructed in 2015-2016.

Table 6. Accumulative ASS carried out by CPO, 2009-2017

Year	Completed Reactor	ASS 1	ASS 2
2009	62	62	62
2010	1,586	1,580	1,580
2011	2,995	2,955	2,955
2012	3,339	3,198	3,198
2013	3,269	3,040	3,040
2014	2,973	2,445	2,445
2015	2,383	1,419	406
2016	3,543	1,038	169
2017	2,296	144	0
Total 2009-2017		15,881	13,855

4.2.7 Bioslurry utilization

With reference to the previous Biogas User Survey, most of farmers are aware about the potential of bioslurry for their crops. However, the survey also takes note that a number of biogas user makes reservations in using bioslurry due to the impracticability of having to carry the bioslurry to the farm. As confirmed by the survey the average additional household income from bioslurry ranges from IDR 200,000 to 2,000,000 / month (EUR 11 – 118).



Liquid bioslurry fertilizer product by Ms Rumiyati of Udanwuh village of Semarang Regency, Central Java



Upon graduation from 'Lemna training', Mrs Sayemi of Pagerjuang Village of Yogyakarta went to establish her own Lemna pond to secure the steady stock for her dairy cow and duck feeding. Since adding Lemna to her dairy cow intake, Mrs Sayemi is getting an extra of 1 liter of milk from each of her two dairy cows. With the better quality of the milk she is now also getting a better price for her daily milk sales. She is also getting additional daily income IDR 30,000 (EUR 1.78) from the sales of duck eggs. She is now preserving 20 ducks and planning to add more ducks to a total of 300 ducks. Using the joint organic demplot house promotion with fellow GADINGbusiness households she is aiming at sales of 240 eggs / day that will secure the net profit of IDR 6,740,000 (EUR 400) month.



Mr Amaq Samat of Ubung Village, Lombok Tengah, NTB started making a business out of bioslurry in the beginning of 2017. Having started with the intermittent selling of 5kg to 25 kg package of solid bioslurry to his local market near his native Ubung village of Lombok Tengah, Mr Amaq has now regular monthly sales of 4 tonnes of solid bioslurry fertilizer to organic farmers in Bali. In making sure that he can meet the increasing demand, Mr Samat needs to work with other biogas users to secure the supply of fresh bioslurry. In this respect, he is quite important in enhancing the enthusiasm for biogas in their village. He is now starting to introduce his products to the district agriculture agency and the University of Mataram through development of agriculture demo plots to expand his market in NTB.

Some households have developed even bigger result. Lending from a number of business training and coaching within the '**Gathering and dissemination of information and green knowledge for a sustainable integrated farming workforce in Indonesia**' (GADING) project, a number of prosperous small business have now emerged in West Java, Yogyakarta and NTB². In improving the capacity of existing biogas users, the GADING project supports the introduction of Lemna/Duckweed, a particular aquatic plant which float on the surface of still of slow-moving body of fresh water and waterlands. Committed biogas users are provided with a series of training on making the bioslurry as base fertilizer for Lemna agriculture which at the end is supplemented as source protein intake for cattle and poultry as well as fresh water fish rearing.

Setting the future of bioslurry in Pinrang, South Sulawesi

The District of Pinrang in South Sulawesi is one of the newer working areas of IDBP. Under the framework of cooperation between Hivos and the Government of South Sulawesi, the IDBP finally started work in Pinrang in 2016. Yet, prior to the IDBP the provincial and district governor had constructed 100 biodigesters, most of which are not functioning. Learning from this hard experience, the Provincial and District government invited IDBP to work together for biogas programming in the area. By the end of 2017 a total of 178 IDBP biodigesters were fully constructed in the district of Pinrang.



Credit should be attributed to the endurance of Ms Agustina for the number of biodigesters in Pinrang. A single mother of 2 children, Ms Agustina is not the kind of woman that will wait for destiny to work out for her. She developed various business and farmer groups activities to lift her and fellow farmers to a better state of livelihood. Following intensive discussions with the IDBP office of South Sulawesi and the Energy Agency of South Sulawesi throughout 2015, she directed the interest group Rezky Masagena to work alongside IDBP to expand the biogas promotion in Pinrang. It was not an easy endeavor as communities still remember the previous failure of the biogas program of the government. CV Rezky Masagena has further been admitted as IDBP construction partner in 2016. The first project was the construction of 28 biodigesters in Pinrang under South Sulawesi Energy Agency's grant.

² GADING is an MCA-I funded project (with WOTRO co-financing) undertaken by Hivos which aims at knowledge collection on the use of Lemna as high nutrient fodder for cows, pigs and fish. IDBP biogas users are targeted in this project.



Due to its excellent completion of work, BIRU has further entrusted the construction of 150 units in Pinrang to CV Rezky Masagena in 2017. In continuing her construction business that currently worth IDR 100 million of turnover, Ms Agustina has now starting to make the best of bioslurry potential to expand her biogas business model.

The bioslurry potential was also confirmed by Mr Hasanudin of Langa Village for his shrimp business. Unlike many other farmers in Pinrang, he developed interest with biogas based on his own research. Yet, it was not until he met Ms Agustina during the biogas socialization meeting in his village that he was convinced to have his 12 m³ biodigester installed.

In 2017 Mr Hasanudin started applying bioslurry as base fertilizer which resulted in better quality of shrimp. Upon using the bioslurry he managed to have an earlier harvesting time with better weight and quality shrimp. He further applies the base fertilizer to his fish ponds with similar result.

Ms Agustina and Mr Hasanudin of Pinrang are only a few of the successful business proprietors that have reaped benefit from biogas, albeit in a limited scale. Even now she is promoting bioslurry intensively, Ms Agustina is still putting high hopes that the government will continue to provide considerable funds for biogas so that she can maintain her biodigester construction business. Likewise, Mr Hasanudin expects that there will be other support from the program for expanding the market of his business. There isn't any plan beyond hoping for additional external support on making the bioslurry more impactful to their business. Indeed, there is a bright future for bioslurry in South Sulawesi, but with extra effort in pushing for the actors to devise innovation to create continuous demand for their product.

4.2.8. Biogas appliances research and development

Research and development on IDBP is aimed first and foremost at providing applicable solutions towards maintaining a high rate of customer satisfaction. Moreover, the selection and development of particular technologies must include the prospect for development of demand for the technology and/or appliances that can be developed collaboratively with partners for future business.

Finally, IDBP seeks for development of technology that can bring about improved capacity of individuals and organization of YRE in devising new programs in biogas and other renewable energy solution. In this regard, the YRE was successful in implementing the construction of 7 units of 30m³ biodigesters in the village of Tangkit of Muaro Jambi district of Jambi province under the Jambi Green Berbak project by SNV with the support of MCA-I.

Throughout 2017 IDBP has established cooperation with academics, construction partners and appliance providers to address some technical challenges that have been communicated by the users. Some of the approval of solutions are the following:

1. Approval of the double burner stove under the brand **Butterfly 868 S-Bg** manufactured by PT Solihin Jaya (BTFLY T 01) with average efficiency result of 52.7%.
2. Approval of manuals and standard operation procedure for LPG stove modification (for biogas use) developed by Institut Teknologi Pertanian (Instiper) of Yogyakarta.
3. Approval of design and test unit of hybrid generator set that can run with biogas manufactured by CV Karsa Tekad Mandiri.
4. A research for the use of water hyacinth (*Eichhornia crassipes*) as primary feeding for the biodigester has further been put into test with the construction of a 12m³ biodigester in Rawa Pening, Central Java under the cooperation with Hochschule für Forstwirtschaft Rottenburg. The results of the research have been shared with IDBP and should be able to serve as advocacy tools for biogas technology promotion for environmental management in Central Java. At the time of the writing of this report, a proposal is submitted to prospective company in Central Java for support for water hyacinth biogas development in Rawa Pening in Semarang Regency, Central Java.
5. 1 ATEC portable biodigester test unit is now installed in Central Java as follow up of the visit of IDBP technical persons to Cambodia in September 2016. The portable unit which is made by polyethylene is now being tested for its durability.

4.3. Establishment of an enabling policy environment for sustainable biogas sector development

4.3.1. Standardization of biogas appliances by the Gol

The national government is pushing the national agenda on biogas through the allocation of special funds (*Dana Alokasi Khusus-DAK*) for regional governments for biodigester construction. These funds are only accessible through submission of appropriate technical proposals from the heads of provinces and districts. The IDBP, through YRE, has established itself as key partner of the DGNREEC by establishing and updating the national guidelines for the fixed dome digester which serves as the main reference for the development of proposal for accessing the DAK by the head of regional government. By playing an active part in the formulation of guidelines the IDBP can ensure that the development of the national biodigester system will not deviate from the appropriate standard that has been set forth by the programme.

4.3.2. Financial contribution from Gol to support market-based biogas dissemination

The Gol has welcomed IDBP's co-financing scheme as an approach to sector development with the first scheme of construction material contribution made by DGNREEC to East Java in 2013 (IDBP and the Gol each contributed EUR 107/ biodigester while the farmers cover for remaining cost). The construction material contribution in East Java is now still on-going and being administered by the Energy and Mineral Agency of East Java Province.

The co-financing scheme has been further adopted and developed by the regional governments (provinces and districts) in NTB and South Sulawesi. Cooperation with provincial and district governments for 2017 is detailed in the table below:

Tabel 8. Government Agencies Financial Contribution for Bio-digester Construction in 2017

Contribution from Gol	Province	IDR	EUR
<i>Dinas Pertambangan dan Energi</i> (Agency of Mining and Energy)	NTB	2,084,000,000	148,857
<i>Dinas Pertambangan dan Energi</i> (Agency of Mining and Energy)	South Sulawesi	1,103,085,450	78,791
<i>Special Allocation Fund of District of Wajo</i>	South Sulawesi	55,236,756	3,945
<i>Badan Pemberdayaan Masyarakat Desa Kabupaten Bantaeng</i> (Agency of Village and Community Empowerment of District of Bantaeng)	South Sulawesi	22,000,000	1,571
<i>Kantor Lingkungan Hidup Kabupaten Luwu Utara</i> (Agency of Environment Protection of District of Luwu Utara)	South Sulawesi	93,891,280	6,706
<i>Kantor Lingkungan Hidup Kabupaten Sinjai</i> (Agency of Environment Protection of District of Sinjai)	South Sulawesi	156,000,000	11,142
<i>ESDM D.I. Yogyakarta</i> (Agency of Energy and Mineral Resource of D.I. Yogyakarta)	D.I. Yogyakarta	3,429,232,961	228,053
<i>Badan Lingkungan Hidup Kabupaten Badung</i>	Bali	86,492,824	5,752
<i>Badan Lingkungan Hidup Kabupaten Bangli</i>	Bali	91,199,405	6,065
<i>Badan Lingkungan Hidup Kabupaten Gianyar</i>	Bali	83,590,683	5,559
<i>ESDM Jawa Timur</i> (Agency of Energy and Mineral Resource of East Java)	East Java	230,500,000	15,329
Total		7,435,229,359	511,770

4.3.2. Expanding biogas advocacy to other government institutions

The Ministry of Energy and Mineral Resources (DGNREEC) has been the primary national government counterpart of the IDBP. Through years of implementation the IDBP has expanded biogas advocacy towards other sector, primarily at the regional level. As of now the agency of environment protection in some districts has followed suit in contributing efforts for biogas dissemination. Efforts are also underway to convince other relevant agencies such as the Livestock and Farming Agency to take part in bioslurry dissemination.

The endorsement of the village special allocation funds for infrastructure by the Gol also create more opportunity to disseminate biogas technology further. As of now, series of consultation with districts and villages officials are taking place through community meetings and workshops to assess the possibility of accessing the village infrastructure fund for biogas programming.

CHALLENGES AND LESSONS LEARNED



Corporate biogas customer: the investment incentive has been the utmost leverage of the IDBP in biogas dissemination. Efforts in reducing the incentive has been done with a sense of discontent from partners and thus with limited success. In 2017 the YRE started to develop a programmatic approach to potential corporate customers with considerable success in West Java. This kind of promotion of biogas is encouraged to be developed in all IDBP provinces.

Biogas credit development: the biogas should be accessible to most farmers, even the ones with limited capacity in making the one-time full payment. The credit is developing very slowly due to the stumbling efforts in making the market work for the bioslurry to cover for the initial investment. Initiative in establishing bioslurry as 'credit currency' has been introduced but needs to be promoted in a more compelling fashion. The value adding role of bioslurry as the market and investment key is to be encouraged in 2018.

More involvement from Financial Institutions in the biogas sector marketing: in relation to the above, collaborating and gaining solid partnerships with financial institutions (banks, cooperatives, and credit unions) needs to be mainstreamed in biogas marketing. These institutions should not be considered only a part of the IDBP support system, but they should be targeted as the main actor of programme marketing. The responsibility of these business entities would then not only be providing loans for farmers to obtain bio-digesters, or providing working capitals for CPOs. With their members/customers networks, they will function as IDBP marketing agents with more effective results than the preferable CPOs' "door to door" marketing approach.

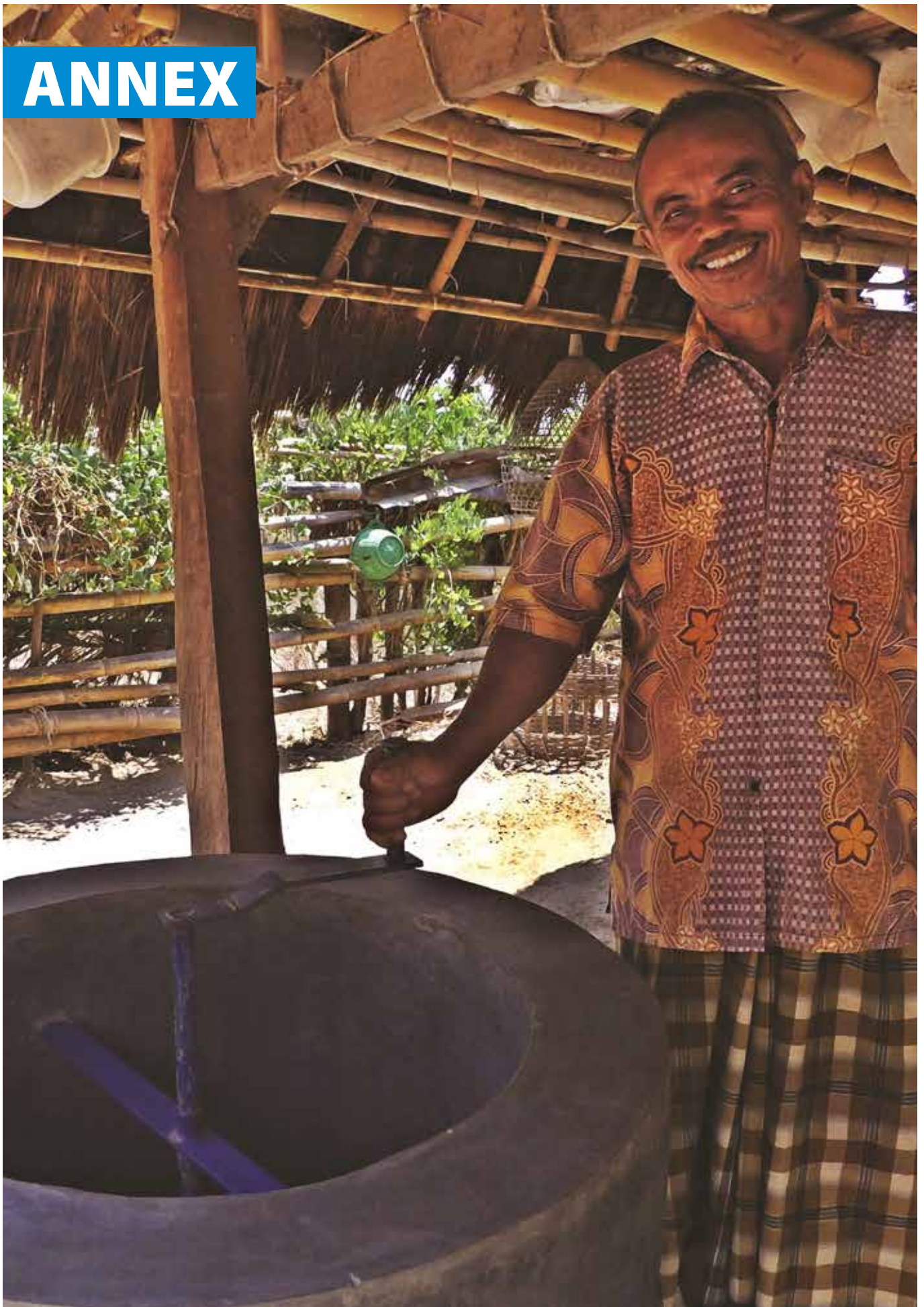
Channeling government support for biogas dissemination: provision of government funds for biogas programme is beneficial as to maintain the steady rate of biodigester construction. However, since government contribution is channelled as direct subsidy for the construction of biodigesters, it gets more difficult to realize market-based sector development. Efforts in changing the subsidy scheme through credit banking is underway with positive signs from Development Bank of Central Java, albeit with very slow progress. It is of particular importance for other provinces to develop productive credit schemes for integrated farming for biogas marketing.

Promo and marketing: too much reliance on the government-supported biogas projects has resulted in a low rate of completion of 2017. This, combined with the overlooked innovation in biogas promotion, has impacted the low demand from the non government market. Efforts are on the way for 2018 for rejuvenation of promotion strategies on the improved ways of bioslurry management by successful farmers.

Setting the biogas as social business avenue by CPOs: IDBP takes note that for the year 2017, the CPOs quality of work is somewhat decreasing in some areas. This is related to the mindset of securing the short time gains through speeding up the construction work without a longterm strategy in customer relations. Furthermore, a number of CPOs maintain that their mandate is non-profit, which to some extent stands the opposite with the objective of establishing a healthy biogas business for them. This way of thinking keeps them from looking for innovative approaches in looking beyond providing investment subsidy as way of biogas marketing with regard to social business setting. Capacity development is encouraged to be provided to CPOs with potential business plan for the year of 2018. In doing so, IDBP will seek funding opportunities to increase the managerial capability skills in business management to support the CPOs enhancement through developing prospective programs with donor agencies and government agencies as well as with corporate social fundings.

Micro credit planning by provinces: finally, participation of Loan Partner Organizations (LPO) needs to be intensified in the program planning at the national and provincial level. Dedicated staff to manage the development of micro credit part might of be particular importance in the selected province such as Central Java to follow up the proceeding with the anticipated biogas credit in the province. Alternatively, a shared credit staff can be assigned between IDBP Provincial offices and cooperatives/credit unions.

ANNEX



Annex 1: IDBP 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	JJl. 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 Bio-slurry

Roll-up Banner BIRU

Roll-up Banner BIRU Benefit (Sundanese)

Roll-up Banner BIRU Benefit

Folded Brochure BIRU



Brochure BIRU Profile (bahasa)



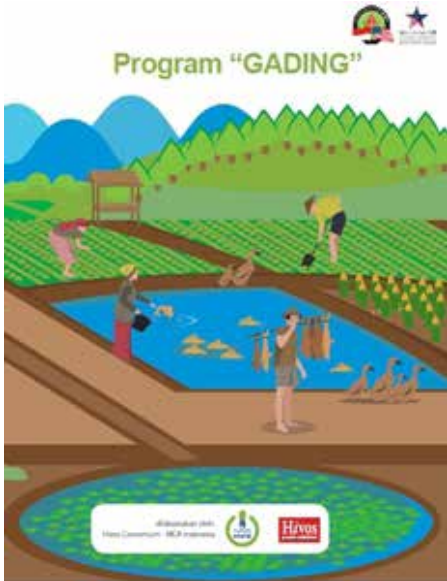
Brochure BIRU Profile (english)



Brochure Bio-slurry Benefit



Brochure GADING Program



Brochure Bio-slurry Profile



Flipchart Bio-slurry



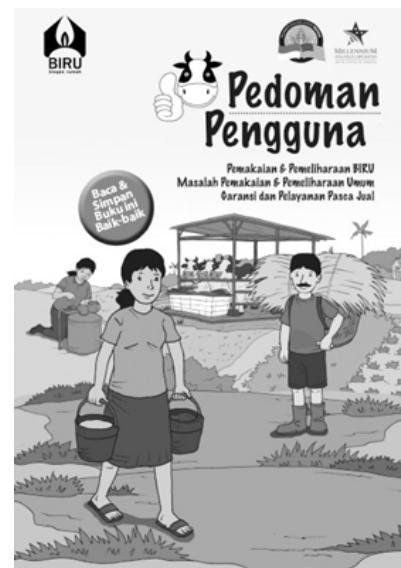
Newsletter



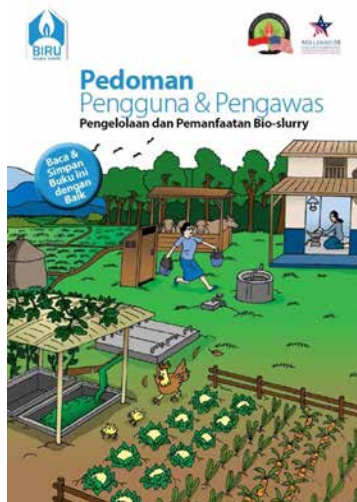
Sticker Biogas Usage



Manual BIRU Usage



Manual Bio-slurry Usage



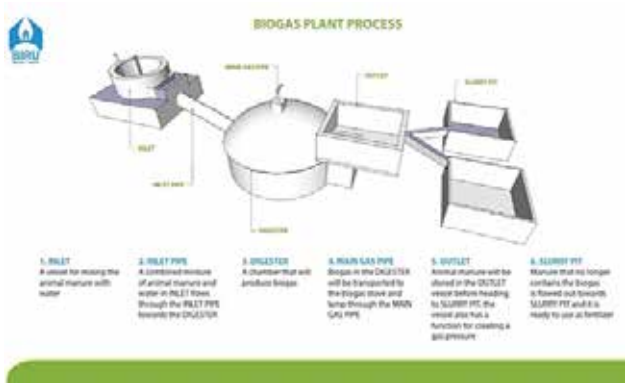
BIRU Book



Roll-up Banner Rumah Energi



Backdrop Biogas Process Plant



Backdrop Integrated Farming



Poster Lemna (Duckweed)



Goodie Bag



Tumbler



Calendar



Annex 3: List of Construction Partners

No.	Name of Construction Partners	Province
SME		
1.	CV Karsa Tekad Mandiri	East Java
2.	CV Qaryah Thayyibah	Central Java
3.	CV Sarana Sejahtera	Central Java
4.	UD Bontomarannu	South Sulawesi
5.	CV Fitria Jaya Abadi	Lampung
6.	Sumber Makmur 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. Rezki Abadi	South Sulawesi
24.	CV. Mega Muliya	South Sulawesi
25.	CV. Mitra Bumi Abadi	East Java
26.	CV. Palapa Abadi	NTB
27.	Rumah Hijau Organik Mason Group	Sumba (NTT)
28.	Mitra Sarana Energi	Central Java
29.	PT. Bhumi Asri Lumigar	West Java
30.	CV. Rehan Putra Palbon	South Sulawesi
31.	CV. Rezky Utama Masagena	South Sulawesi
NGO		
32.	Yayasan Sumberdaya dan Lingkungan untuk Pelestarian Pembangunan (YSLPP)	NTB
33.	Yayasan Sion	Central Java
34.	Yayasan Trukajaya	Central Java
35.	Lembaga Pengkajian Kemasyarakatan dan Pembangunan (LPKP)	East Java
36.	Lembaga Pengembangan Pertanian Nahdatul Ulama (LPP-NU)	Lampung
37.	Yayasan Suara Bhakti	Central Java
38.	LPTP	Central Java
39.	Lembaga Pendidikan dan Pemberdayaan Anak Bangsa (LPPAB)	East Java
40.	Yayasan Lembaga Pembinaan Masyarakat Desa (YLPMD)	Lampung
41.	Yayasan Manikaya Kauci	Bali

No.	Name of Construction Partners	Province
42.	Lembaga Sosial Waimaringi	Sumba (NTT)
43.	Yayasan Harapan Sumba	Sumba (NTT)
44.	Yayasan Kontak Indonesia	West Java
45.	LSPI At-Tayseer	Central Java
46.	Yayasan Prakarsa Swadaya Masyarakat (YPSM)	East Java
47.	Yayasan Sastra Loka Samgraha	Bali
48.	Yayasan Kontak Indonesia	West Java
49.	MPM Muhammadiyah Luwu Timur	South Sulawesi
50.	Yayasan Petta Haji Hasbullah	South Sulawesi
Cooperative		
51.	KAN Jabung	East Java
52.	KUD Semen	East Java
53.	KUD Sumber Makmur Ngantang	East Java
54.	KUD Tani Wilis	East Java
55.	Koperasi SAE Pujon	East Java
56.	KUD Tani Makmur	East Java
57.	KSU Bulu Saukang	South Sulawesi
58.	Koperasi Andini Luhur	Central Java
59.	Koperasi Jasa Peduli Kasih	Sumba (NTT)
60.	KPGS	West Java

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

Province	District/city	Year	Sub-district	Tot D	Tot SD	
				2009-2017		
East Java	Kabupaten Malang	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	
		2013	Pagelaran, Kedung Kandang, Wajak	0	3	
		2014	Sumber Manjing Wetan, Sumber Puncung, Gedangan	0	3	
		2015	Ngajum	0	1	
	2016	Wonosari	0	1		
	Kediri	Kediri	2010	Kandangan, Kepung, Puncu, Pagu, Wates, Ngancar	1	6
			2011	Plosoklaten, Gurah, Kandat	0	3
			2012	Medowo, Mlancu, Segaran	0	3
			2014	Kras, Ringinrejo	0	2

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
	Jombang	2015	Mojoroto, Ngadilurih, Nganjuk	0	3
		2011	Wonosalam, wulung, Bareng	1	3
		2012	Galengdowo	0	1
	Blitar	2010	Gandusari	1	1
		2011	Semen, Wlingi	0	2
		2012	Sanan Kulon	0	1
		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
		2012	Ngembal	0	1
		2013	Pasrepan	0	1
	Mojokerto	2011	Pacet	1	1
		2013	Trawas	0	1
	Tulungagung	2011	Ngunut, Sendang, Pagerwojo, Kedung waru, Rejotangan, Sumber Gempol	1	6
		2014	Karangrejo, Pucang Laban	0	2
	Kota Batu	2011	Junrejo	1	1
		2014	Bumiaji, Batuaji	0	2
	Probolinggo	2011	Krucil	1	1
		2014	Maron, Bantaran, Tiris	0	3
	Trenggalek	2011	Bendungan, Pule, Kelutan	1	3
		2015	Gandusari, Suruh	0	2

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
	Lumajang	2010	Senduro	1	1
		2011	Tempeh , Kunir, Kandang tepus, Kedung jajang	0	4
		2013	Sukodono, Padangan, Rowokangkung	0	3
		2014	Tekung, Pasirian, Pasirjambe	0	3
		2015	Randuagung	0	1
	Jember	2011	Ambulu	1	1
		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
		2013	Ngrayun, Balong, Sukorejo, Slahung	0	4
		2014	Badegan, Mlarak, Bungkal, Babatan	0	4
		2016	Sampung	0	1
	Magetan	2011	Bulugunung, Panean	1	2
		2014	Maospati	0	1
	Madiun	2013	Dolopo	1	1
	Gresik	2014	Sidayu, Dukun, Menganti	1	3
		2015	Ujung Pangkah	0	1
	Banyuwangi	2013	Bangurejo, Siliragung	1	2
	Sumenep	2013	Ganding	1	1
	Total East Java				19

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
Central Java	Sragen	2010	Kedawung, Plupuh	1	2
		2011	Gemolong, Sambirejo, Sragen	0	3
		2012	Ngrampal, Miri	0	2
		2013	Sambung Macan, Karang Malang	0	2
		2014	Masaran, Gondang, Sidoharjo	0	3
		2015	Gesi	0	1
	Tegal	2014	Margasari	1	1
	Wonogiri	2010	Wonogiri, Ngadirojo	1	2
		2011	Giriwolyo	0	1
		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
		2013	Mandiraja	0	1
	Karanganyar	2011	Jumantono, Jatipuro, Jatiyoso, Tawangmangu, Matesi, Sambat	1	6
		2012	Mojogedang, Lempong, Jaten, Jenawi, Ngargoyoso, Jumapolo	0	6
		2013	Kerjo, Bolong	0	2
		2014	Tasikmadu, Gondangrejo, Karangpandan	0	3
		2015	Kebakkramat	0	1
	Sukoharjo	2010	Nguter	1	1
		2011	Gatak, Bendosari, Palokarto, Tawangsari	0	4
	Grobogan	2011	Purwodadi, Wirosari	1	2
		2012	Krajan	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD	
				2009-2017		
		2014	Geyer	0	1	
		2015	Pulokulon	0	1	
		2016	Kradenan	0	1	
		Wonosobo	2010	Selomerto	1	1
			2011	Kepil	0	1
			2012	Wadaslintang	0	1
			2015	Mojotengah	0	1
		Klaten	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
			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
			2011	Karanggede, Sambu, 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
		Magelang	2011	Dukun	0	2
			2012	Salam, Srumbung, Ngablak, Sawangan	0	4
			2013	Borobudur, Grabak	0	2
			2015	Magelang Selatan, Mertoyudan, Muntilan, Pakis	0	4

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		2016	Bandongan	0	1
	Temanggung	2010	Temanggung, Kaloran	1	2
		2013	Tlogomulyo, Kranggan, Parakan	0	3
		2014	Bulu, Bansari	0	2
		2015	Gemawang, Pringsurat	0	2
		Kabupaten Semarang	2010	Tengaran, Suruh, Ungaran, Sumowono, Gunung pati, Getasan, Pabelan, Bergas, Tembalang, Susukan	1
	2011		Plupuh, Ungaran Barat, Banyubiru, Kaliwungu	0	4
	2012		Bancak	0	1
	2013		Kedung Mungdu, Tuntang, Bandungan, Bawen	0	4
	2014		Ambarawa	0	1
	2015		Kebumen	0	1
	Salatiga		2010	Argomulyo	1
		2011	Sidorejo	0	1
		2012	Tingkir	0	1
		2014	Sidomukti	0	1
	Blora	2011	Japah	1	1
		2012	Sambong	0	1
		2013	Ngawen	0	1
		2015	Jepon, Jiken	0	2
	Banyumas	2011	Sokaraja	1	1
	Jepara	2011	Keling	1	1
		2012	Mlonggo, Pakisaji, Pecangaan, Tahunan, Mantingan	0	5
		2013	Mayong	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
	Batang	2011	Subah, Tersono	1	2
	Rembang	2012	Rembang	1	1
		2013	Lasem, Pamotan, Sedan, Gunem	0	4
		2014	Pancur	0	1
		2015	Krangan, Sulung	0	2
	Kendal	2011	Bojo	1	1
		2013	Singorojo	0	10
	Pati	2012	Gabus, Jakenan	1	1
		2013	Tayu	0	1
		2014	Wedarijaksa, Sukolilo, Pati	0	3
		2015	Donorojo, Juwana, Margoyoso, Tambakromo	0	4
		2016	Dukuhseti	0	1
	Pemalang	2012	Pemalang	1	1
		2014	Randudongkal	0	1
	Kebumen	2014	Mirit	1	1
	Kudus	2015	Gebog	1	1
		2016	Dawe	0	1
	Tuban	2015	Bancar	1	1
	Brebes	2012	Paguyangan	1	1
Purworejo	2016	Ngombol	1	1	
Yogyakarta	Bantul	2010	Pundong, Bambanglipuro, Jetis, Srandakan,	1	4
		2011	Pleret	1	1
		2012	Kretek, Piyungan, Banguntapan, Pandak, Pundong, Sedayu, Sewon	0	7
		2013	Dlingo, Sanden, Imogiri	0	3

Province	District/city	Year	Sub-district	Tot D	Tot SD	
				2009-2017		
		2014	Pajangan, Srandakan	0	2	
		2016	Kasihan	0	1	
	Gunung Kidul	2011	Nglipar	1	1	
		2012	Panggung, Sapto Sari	0	1	
		2013	Ponjong, Wonosari	0	2	
		2014	Playen, Patuk, Semanu, Semin, Tanjung Sari	0	5	
		2015	Gedang Sari, Karang Mojo, Ponjong	0	3	
		2016	Ngawen, Playen	0	2	
		Sleman	2010	Cangkringan	1	1
	2011		Sawangan, Ngluwar, Candi Mulyo	0	3	
	2013		Turi, Ngemplak, Berbah, Tempel, Moyudan, Ngaglik	0	6	
	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	
		2013	Kalibawang, Lendah	0	2	
		2014	Nanggulan	0	1	
		2015	Sentolo	0	1	
		2016	Jatirejo	0	1	
	Total Centra Java/Yogya				32	258

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
West Java	Kabupaten Bandung	2010	Pangalengan	1	1
		2011	Kertasari, Pacet, Arjasari, Ciwidey, Pasirjambu, Majalaya	0	6
		2012	Soreang	0	1
		2014	Cileunyi, Cilengkrang, Cimeunyan, Rancaekek, Cikancung	0	5
		2016	Ibun, Selokan Jeruk	0	2
	Banjar	2016	Pataruman	1	1
	Cianjur	2011	Gekbrong, Cipanas	0	3
		2015	Sukaresmi, Pacet	0	2
	Sukabumi	2011	Cicurug, Sukaraja, Cibodas	1	3
		2012	Purabaya	0	1
		2013	Sukalarang, Cikembar	0	2
		2014	Nyalindung, Surade	0	2
		2015	Kalapanunggal, Kabandungan	0	2
	Bandung Barat	2010	Lembang, Cisarua	1	2
		2012	Parongpong	0	1
		2014	Ngamprah	0	1
	Depok	2015	Sawangan, Tapos, Cipayung	1	3
		2016	Limo	0	1
	Garut	2010	Bayongbong, Cigedug, Bluburlimbangan, Cisurupan	1	4
		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

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
	Subang	2011	Ciater, Sagalaherang, Jalancagak	1	4
		2013	Ciasem	0	1
		2016	Cisalak, Tanjungsiang	0	2
	Sumedang	2010	Tanjungsari	1	1
		2011	Pamulihan, Sukasari, Tandangsari, Jatinangor, Darmaraja, Parakamuncang, Cimanggung	0	7
	Purwakarta	2011	Bungursari	1	1
		2014	Cibatu, Wanayasa, Manis, Cempaka	0	4
	Bogor	2011	Nanggung, Cisarua, Megamendung	1	3
		2012	Bojong Gede	0	1
		2014	Cariu	0	1
		2015	Kemang, Jasinga	0	2
		2016	Cibungbulang, Pamijahan	0	2
	Kota Bandung	2011	Dago, Puncrut	1	2
	Indramayu	2011	Sliyeg	1	1
		2012	Sindeng	0	1
		2014	Arjasari	0	1
	Kuningan	2011	Cigugur	1	1
		2014	Maleber	0	1
		2016	Kramat Mulya	0	1
	Cirebon	2011	Talun	1	1
		2012	Gempol	0	1
	Tasikmalaya	2012	Karangnunggal	1	1
	Bekasi	2013	Bojong Manggu, Tambun Selatan	1	2

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		2014	Jati Sampurna, Cikarang Utara, Cikarang Pusat, Pondok Melati, Cibarusah	0	5
		2015	Babelan, Pondok Melati, Serang Baru, Sukakarya, Sukawangi, Tambun Utara	0	6
	Ciamis	2014	Lumbung	1	1
		2015	Baregbeg	0	1
	Pangandaran	2015	Padaherang	1	1
Banten	Pandeglang	2011	Citeureup	1	1
		2012	Bojong, Koroncong, Carita, Panimbang	0	4
	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
	Barru	2015	Barru, Tanete Rilau, Balusu, Tanete Riaja, Barru	1	5
		2016	Mallusetasi, Soppeng Riaja	0	2
	Bantaeng	2015	Bissappu, Eremerasa, Gantara, Gantarang, Pajukukang, Tompobulu	1	6
		2016	Sinoa	0	1
	Sinjai	2011	Sinjai Selatan	1	1
		2012	Sinjai Timur, Tellu Limpoe, Sinjai Barat, Sinjai Tengah	0	4
		2015	Sinjai Utara	0	1
		2016	Sangiasseri	0	1
	Bone	2011	Bengo, Sua Baccoe	1	2
		2012	Kahu, Patimpeng	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		2013	Amali, Tonra, Lamuru, Lappariaja	0	4
		2014	Barebbo, Awangpone, Cenrana	0	3
		2015	Mare	0	1
		2016	Libureng, Ponre, Tellu Siattinge	0	3
	Maros	2012	Simbang	1	1
		2013	Tompobulu	0	1
		2014	Tanralili	0	1
		2015	Camba, Bantimurung	0	2
		2016	Cenrana, Turikale	0	2
	Takalar	2012	Galesong Selatan	1	1
		2013	Polobangkeng Selatan, Polobangkeng Utara, Mappakasunggu	0	3
		2015	Mangara Bombang, Pattallassang, Polobangkeng Utara	0	3
		2016	Sonrobone	0	1
	Tana Toraja	2013	Makale Utara, Saogalla Selatan	1	2
		2014	Makale, Sangalla	0	2
	Toraja Utara	2014	Tallunglipu	1	1
		2015	Pemmana, Penrang Takkalla	0	2
	Bulukumba	2013	Bulukumpa, Gantarang, Kajang	1	3
		2015	Bontotiro	0	1
	Gowa	2013	Bontonompo	1	1
		2015	Bontorampa	0	1
		2016	Bontonompo Selatan, Bontomarannu, Manuju	0	3
	Jeneponto	2013	Bangkala	1	1

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		2016	Rumbia	0	1
	Wajo	2013	Gilireng	1	1
		2014	Pammana	0	1
		2016	Majauleng, Penrang, Sajoanging, Sakkoli	0	4
		Soppeng	2013	Mario Riawa, Donri-donri, Lalabata	1
	2016		Lili Riaja	0	1
	Luwu	2015	Kamanre	1	1
	Luwu Timur	2015	Burau	1	1
	Luwu Utara	2015	Bone-bone, Mappadeceng, Sukamaju	1	3
		2016	Seko	0	1
	Sidenreng Rappang	2015	Baranti, Duapitue, Kulo, Maritengngae, Panca Rijang, Pitu Riawa, Watang Pulu, Watang Sidenreng	1	8
	Pangkajene Kepulauan	2014	Ma'Rang, Labakkang	1	2
		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
		2016	Praya Barat Daya	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
	Lombok Barat	2010	Gerung, Narmada	1	2
		2011	Sekotong, Lembar, Gunungsari, Lingsar, Batulayar	0	5
		2012	Labu api, Gunungsari, Lingsar, Sekotong, Senteluk	0	5
		2014	Kediri	0	1
		2015	Kuripan	0	1
	Lombok Utara	2011	Tanjung, Pemenang, Gondang	1	3
		2012	Bayan, Gangga, Kayangan	0	3
		2016	Tanjung Karang Barat	0	1
	Lombok Timur	2010	Suralaga, Labuhan Haji	1	3
		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
	Mataram	2012	Mataram	1	1
		2013	Sanubaya	0	1
		2015	Selaparang, Jempong Baru	0	2
	Sumbawa	2012	Moyohilir, Moyo Utara, Tarano	1	3
		2013	Labuhan Badas, Maronge, Lopok, Smapuin	0	4
		2015	Lunyuk, Margakarya, Moyohulu, Pungkit, Underwis	0	5
	Sumbawa Barat	2012	Seteluk	1	1
		2013	Pototano	0	1
		2014	Brang Ene, Brang Rea, Jereweh, Maluk, Taliwang, Rempe	0	5
	Kota Bima	2013	Bima, Soromandi, Rasanae	1	3

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		2014	Palibelo, Bolo	0	2
		2015	Rasanae, Rasanae Timur, Soromandi	0	3
		2016	Asakota	0	1
	Sumbawa Barat	2016	Moyo Hulu, Utan	1	2
	Dompu	2013	Dompu, Kramat Mulya	1	2
		2016	Kempo	0	1
Total NTB				10	90
Bali	Gianyar	2010	Payangan	1	1
		2011	Ubud, Tegalalang	0	2
		2012	Blahbatuh, Tegal Kolong	0	2
		2013	Tampak Siring, Sukawati	0	2
		2016	Bitera	0	1
	Kab.Bangli	2010	Tembuku	1	1
		2011	Susut, Bangli, Kintamani	0	3
		2012	Sawan	0	1
		2015	Sidemen, Susut, Tragah, Mengwi	0	4
	Badung	2011	Abiansemal, Petang, Mengwi, Kertabuana	1	1
		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
		2015	Pupuan	0	1

Province	District/city	Year	Sub-district	Tot D	Tot SD	
				2009-2017		
	Klungkung	2011	Klungkung, Banjarangkan, Dawan, Tagak	1	4	
		2013	Banjaranekan	0	1	
	Buleleng	2010	Tejakula, Gerokgak	1	2	
		2012	Sukasadaya, Banjar	0	2	
		2013	Kubu Tambahan, Seririt	0	2	
		2016	Sawan	0	1	
	Denpasar	2011	Denpasar Selatan	1	1	
		2012	Denpasar Utara	0	1	
	Jembrana	2011	Melaya	1	1	
		2012	Negara	0	1	
		2013	Mendoyo	0	1	
	Karang Asem	2011	Kubu, Bebandem	1	2	
		2012	Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya	0	5	
		2014	Pempatan, Abang	0	2	
		2015	Bhuanagiri	0	1	
	Selayar	2011	Payangan	1	1	
	Total Bali				10	57
	Sumba (NTT)	Sumba Barat Daya	2011	Wewewa Timur, Kodi	1	2
			2012	Weetabula, Loura, Wewewa Barat	0	3
			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	
		2012	Kanatang, Lewa	0	2	

Province	District/city	Year	Sub-district	Tot D	Tot SD
				2009-2017	
		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
	Sumba Tengah	2012	Katikutana	1	1
		2014	U Ratu Nggai Barat	0	1
		2015	Katikutana Selatan	0	1
	Sumba Barat	2012	Kota Waikabubak	1	1
		2014	Tana Riu	0	1
		2015	Loli	0	1
Total Sumba (NTT)				4	30
Lampung	Pesawaran	2012	Padang Cermin	1	1
		2013	Gedong Tataan	0	1
	Tulang Bawang	2013	Tulang Bawang Tengah	1	1
	Lampung Tengah	2013	Pubian, Selagai Lingga, Sendang Agung, Seputih Banyak, Trimurjo, Kota Gajah, Seputih Raman	1	7
		2014	Seputih Agung, Terusan Nunyai	0	1
		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
	Lampung Timur	2013	Batang Hari, Way Jepara, Pasir Sakti, Braja Selebah, Raman Utara	1	5
		2014	Sekampung, Pekalongan	0	2
		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	Tot SD
				2009-2017	
	Lampung Selatan	2013	Natar, Jati Agung	1	2
		2014	Sukabumi, Sidomulyo, Merbau Mataram	0	3
		2016	Penengahan	0	1
	Bandar Lampung	2014	Kemiling	1	1
		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 2009-2017				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 Tani Wilis	East Java
5	LPKP	East Java

2. Rabobank Foundation (RBF) Soft Loan

No.	Name of Credit Providers	Province
6	KPSBU	West Java
7	KUD Puspa Mekar	West Java
8	KPGS	West Java
9	KPSCU	West Java
10	KSU Karya Nugraha	West Java
11	KPSP Saluyu	West Java
12	KSU Andini Luhur	Central Java
13	KSP Tekun	Central Java
14	KUD Ngudi Luhur	Central Java
15	KSU Karya Nadhi	Bali
16	KSPPS Laa Roiba	Lampung

3. Kiva Biogas Loan

No.	Name of Credit Providers	Province
17	LKM Rukun Makmur	Central Java
18	LPSI At Tayseer	Central Java
19	LPPNU	Lampung
20	MG Harapan Bersama	Lampung
21	YM3S	Nusa Tenggara Barat
22	MG Paroso	Nusa Tenggara Barat
23	CV. BEM Persada	Jogjakarta

4. Credit Union

No.	Name of Credit Providers	Province
Puskopdit Caraka Utama		
24	CU Setia Bakti	Lampung
25	CU Santa Clara	Lampung
Puskopdit Jatra Miguna		
26	CU Dharma Bhakti	Jogjakarta
27	CU Dharma Prima Kita (Damita)	Jogjakarta & NTT

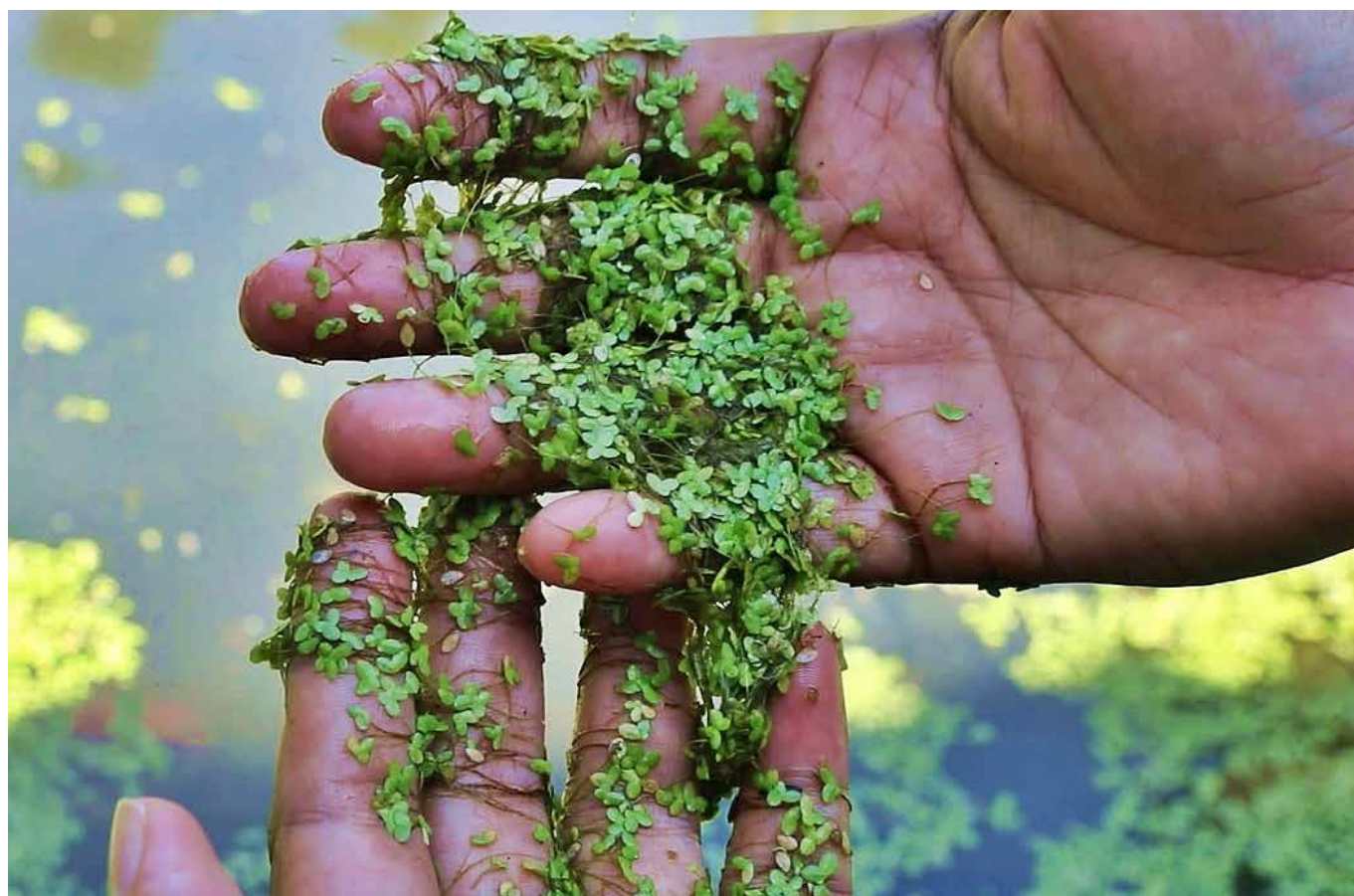
5. Others

No.	Name of Credit Providers	Province
28	Yayasan Trukajaya	Central Java
29	Yayasan Sion	Central Java
30	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 Provincial Energy Departments Ministry of Energy and Mineral Resources Lombok Utara 2015
2	MoU Hivos with District Government Kabupaten Bantaeng Sulawesi Selatan 2015
3	MoU Hivos with District Government Kabupaten Maros Sulawesi Selatan 2015
4	MoU Hivos with District Government for Energy and Mineral Resources Kabupaten Pangkajene 2015
5	MoU Hivos with District Government for Energy and Mineral Resources Kabupaten Wajo 2015
6	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Kabupaten Barru Sulawesi Selatan 2015
7	MoU Hivos with Department Agriculture & Fisheries Provincial Government of Depok West Java 2015
No	Name of MoU
8	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Lombok Utara 2015
9	MoU Hivos with District Government Kabupaten Bantaeng Sulawesi Selatan 2015
10	MoU Hivos with District Government Kabupaten Maros Sulawesi Selatan 2015
11	MoU Hivos with District Government for Energy and Mineral Resources Kabupaten Pangkajene 2015
12	MoU Hivos with District Government for Energy and Mineral Resources Kabupaten Wajo 2015
13	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Kabupaten Barru Sulawesi Selatan 2015
14	MoU Hivos with Department Agriculture & Fisheries Provincial Government of Depok West Java 2015



Annex 7: List of meeting and workshop –updated-

Training workshop and seminar

- 31 January 2017 : Biogas Marketing and Bio-slurry Utilization Business Training for Primary CUs Field Officers in Jogjakarta Province
- 18 October 2017 : Bio-slurry Business Development with Gender Perspective Workshop to business incentive prospective beneficiaries in Sumba Barat Daya District (TERANG Project)
- 11, 12 November 2017 : Bio-slurry Business Development with Gender Perspective Workshop to business incentive prospective beneficiaries in Lombok Utara, Lombok Tengah and Lombok Timur Districts (TERANG Project)

Coordination meeting with Gol

National

Lampung

- 18 April 2017 : Stakeholder meeting
- 12 December 2017 : Stakeholder Meeting

West Java

- 3 March 2017 : Consultation Meeting with EBTKE
- Feb – Jun 2017 : Consultation Meeting with Agency of Energy and Mineral Resources of West Java
- Jan – Apr 2017 : Coordination meeting with Perum Jasa Tirta II
- 13 September 2017 : Stakeholder Meeting with Province Secretary of West Java
- 12 October 2017 : Coordination meeting with Agency of Energy and Mineral Resources of Banten
- 5 December 2017 : Stakeholder Meeting

Central Java

- 5 October 2017 : Coordination Meeting with Agency of Energy and Mineral Resources of D.I. Yogyakarta

NTB

- 30 March 2017 : Coordination Meeting with Bappeda Sumbawa Barat District

NTT

- 16 January 2017 : Coordination Meeting with BPMD Sumba Barat District
- 7 February 2017 : Coordination Meeting with BPMD Sumba Timur District
- 30 March 2017 : Coordination Meeting with BPMD Sumba Tengah District
- 14 June 2017 : Consolidation Meeting with Pejabat Pembuat Komitmen
- 16 May 2017 : Coordination Meeting with Head of Kataka Village
- 26 July 2017 : Coordination Meeting with Head of Kandahang Village
- 2 September 2017 : Meeting and IDBP Socialization to Provincial Secretary of NTT Province at Kupang

South Sulawesi

- 12 January 2017 : Stakeholder Meeting
- 16 January 2017 : Coordination Meeting with BPMD Pangkajene Kepulauan District
- 16 January 2017 : Coordination Meeting with Bappeda of Luwu Timur
- 13 March 2017 : Coordination Meeting with Agency of Energy and Mineral Resources of South Sulawesi
- 4 April 2017 : Coordination Meeting with Agency of Energy and Mineral Resources of South Sulawesi
- 11 May 2017 : Coordination Meeting with Agency of Energy and Mineral Resources of South Sulawesi
- 6 October 2017 : Coordination and consolidation with Bappeda of Bulukumba District
- 9 November 2017 : Coordination and consolidation with Wakil Bupati Bulukumba
- 12 October 2017 : Coordination and consolidation with Provincial Secretary of Sinjai District
- 10 November 2017 : Coordination and consolidation with Bupati of Sinjai District

- 14 November 2017 : Coordination and consolidation with Bappeda of South Sulawesi
 14 November 2017 : Coordination and consolidation with Provincial Secretary of South Sulawesi

Micro Finance Meeting

National

- 23 January 2017 : Coordination meeting with Executive Board and Management of INKOPDIT/CUCO Indonesia
 15 February 2017 : Coordination meeting with Project Manager of Rabo(Bank) Foundation Indonesia
 1 August 2017 : Coordination meeting with General Manager of INKOPDIT/CUCO Indonesia
 14 August 2017 : Meeting with Project Manager of Rabo(Bank) Foundation Indonesia
 18 September 2017 : Meeting with KIVA Portfolio Manager Southeast Asia

Lampung

- 25 April 2017 : Meeting with Executive Board and Management of PUSKOPDIT “Caraka Utama” and Primary CUs
 management
 19 July 2017 : Meeting with Director and General Manager of KSPPS “Laa Roiba” cooperative
 19 July 2017 : Meeting with LPP-NU management and Branch Manager of “Nahdatul Ulama” Lampung Province
 for settling KIVA loan repayment arrears
 20 July 2017 : Coordination meeting with Co-Chairman of PUSKOPDIT/CU “Caraka Utama”
 19 December 2017 : Meeting with LPP-NU and 2 KIVA borrower groups at Lampung Timur District (KIVA Borrower
 Audit)
 20 December 2017 : Meeting with LPP-NU and 3 KIVA borrower groups at Lampung Tengah District (KIVA Borrower
 Audit)
 21 December 2017 : Meeting with 1 KIVA borrower groups at Lampung Tengah District (KIVA Borrower Audit)

Central Java

- 9 January 2017 : Meeting with LPSI “At Tayseer” Director and management for settling KIVA loan repayment arrears
 2 February 2017 : Meeting with Director of Sharia Financing, Bank Jateng (Central Java Development Bank) and
 PINBUK
 30 March 2017 : Meeting with Director of Sharia Financing, Bank Jateng (Central Java Development Bank) and
 PINBUK for “Desa Bestari” Concept
 9 June 2017 : Meeting with Sharia Financing Division and all Branch Head of Bank Jateng (Central Java
 Development Bank) and PINBUK for “Desa Bestari” Concept

Jogjakarta

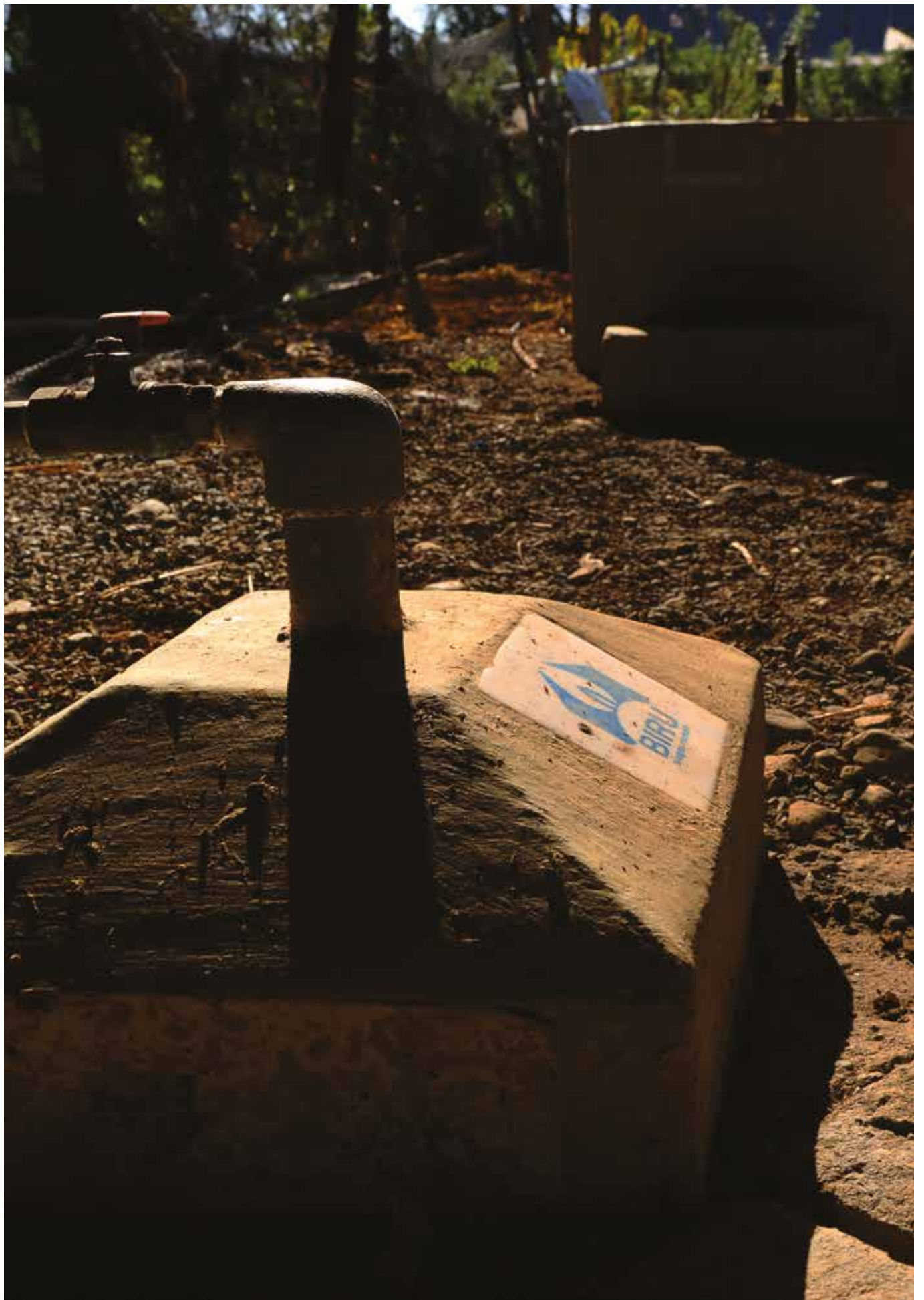
- 12 January 2017 : Coordination meeting with Executive Board and Management of PUSKOPDIT/CU “Jatra Miguna”
 3 August 2017 : Coordination meeting with Management of PUSKOPDIT/CU “Jatra Miguna”
 26 September 2017 : Meeting with KIVA Portfolio Manager Southeast Asia, 4 KIVA Borrower Group and CV. BEM Persada
 (KIVA Borrower Audit)

NTB

- 27 February : Meeting with YM3S management and Coordinator of “Paroso” MG for settling KIVA loan repayment
 arrears
 28 February 2017 : Meeting and IDBP Socialization with INKOPDIT/CUCO Indonesia to Primary CUs in Lombok Island
 District
 7, 10 November 2017 : Meeting with YM3S and 2 KIVA borrowers groups at Lombok Timur (KIVA Borrower Audit)
 9 November 2017 : Meeting with “Paroso” MG and 2 KIVA borrower groups at Sumbawa Besar District (KIVA Borrower Audit)

NTT

- 29 August 2017 : Meeting and IDBP Socialization with PUSKOPDIT “Jatra Miguna” to PUSKOPDIT “Manggarai” and
 Primary CUs officials and member representatives in Manggarai District, Flores Island
 31 August 2017 : Meeting and IDBP Socialization to CU “Citra Hidup” management and member representatives in
 Alor Island







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