

## INTERIM REPORT Indonesia Domestic Biogas Programme

January – June 2015





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31 July 2015



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#### **Abbreviations**

**ASS** After Sales Service (resulting in partner inspection reports)

**BAPPEDA** Regional Planning Bureau

**BIRU** Biogas Rumah (Domestic Biogas)

**BSM** Bank Syariah Mandiri

**BSNI** National Standardization Agency of Indonesia

CLP Climate Leadership ProgrammeCPO Construction Partner Organization

**CU** Credit Union Cooperative

**DAK** Specific Allocation Fund (Dana Alokasi Khusus)

**DGNREEC** Directorate General of New Renewable Energy and Electricity Conservation

DOE Designated Operational Entity
EnDev Energizing 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

Induk Koperasi Kredit, Credit Union Central of Indonesia

**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

KfW A bank institutional from Germany
LPO Lending Partner Organization
MDGs Millennium Development Goals

**MEMR** Ministry of Energy and Mineral Resources

MFI Micro Finance Institutions

MRV+ Monitoring, Reporting and Verification

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

**Puskopdit** Pusat Koperasi Kredit, Provincial Coordination Offices of Cooperatives

QI Quality Inspector

RBF Rabo Bank Foundation

RNE (Netherlands) Royal Netherlands Embassy

RNE (Norway) 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 ProgrammeUNEP United Nations Environment Programme

**VER** Voluntary Emissions Reduction

#### **Output Summary**

Start of Programme : 01 January 2015

Reporting period : 01 January 2015 – 30 June 2015

Programme duration at the end of this reporting period: 6 months. This report include activities in East Java which are

funded through EnDev Programme.

No.	Output		Achi	evements		Remarks/target	
1	Number of digesters produced	Jan-Jun 2015: 812 Under Norway Em	Total IDBP digester up to date: 15,031 units Jan-Jun 2015: 812 units Under Norway Embassy: 440 units Under EnDev Programme: 372 units				
2	Functioning rate	97%					
3							
		Community Meet	tinas				
		Province	Number of meeting	Number of male participant	No of female participant		
		Lampung	17	268	61		
		West Java	18	3119	1809		
		Central Java & DIY	47	1691	636		
		East Java	1	40	0		
		Bali	2	18	17		
		NTB	3	85	25		
		NTT	11	199	179		
		South Sulawesi	17	611	59		
		Total	108	6.031	2.786		
		%		68,4%	31,59%		
		Total Male and Fe	maie		8.817		
		Event & Participa	tion				
		Province		Number of	events		
		National		-			
		West Java		3			
		Central Java & DIY		2			
		South Sulawesi		6			
		Total		11			
	Production of promotion and other materials						
		Printing materials	ting materials 10,617 pcs (brochure, newsletter, roll-up banner, T shirt, kit, etc)				
	<ul> <li>Internet and mobile based</li> <li>Website: biru.or.id 19,794 visitors</li> <li>Twitter account 593 followers</li> <li>Facebook account 1,650 likes; 1,808 friends</li> <li>SMS Hotline 17 SMS senders</li> </ul>		vers kes; 1,808 friends				
		Media publication	<ul><li>Radio promo</li><li>Local newspaper</li><li>Online</li><li>Video</li></ul>				

No.	Output	Achievements	Remarks/target
4	No and % of households using credit	7,942 of 15,031 (53%) households total EUR 2,627,593 Jan-Jun 2015: 119 households, total EUR 49,560	
5	No of credit providers (including cooperatives)	24 providers	
6	MFI development	<ul> <li>Jan-Jun 2015, Nestlé Soft Loan has supported 50 bio digesters construction in East Java.</li> <li>2 cooperatives in West Java (KUD Puspa Mekar and KPGS) became IDBP Constructing Partner (CPO).</li> <li>Kiva loans supported 97 users in 4 provinces during 1st semester of 2015.</li> <li>IDBP through YRE and Induk Koperasi Kredit/Credit Union established a partnership in June 2015 to develop 1.500 bio digesters.</li> </ul>	
7	Subsidy disbursed	Jan-Jun 2015: EUR 42,143 (Norway Embassy) EUR 41,046 (ENDEV)	
8	No of construction partners	Cooperatives: 14 NGOs: 21 SMEs: 29 Total: 64 CPOs	
9	No of provinces, districts and sub- districts	10 provinces 112 districts 661 sub districts	
10	No of masons & supervisors trained	Total: 1,079 masons and 188 supervisors Jan-Jun 2015: 75 masons and 11 supervisors	
11	No of users trained	Total: 11,201 users Jan-Jun 2015: 868 users (682 male, 186 female)	
12	No of plants inspected by CPOs (ASS = maintenance reports)	Overall: 17,048 inspections Jan-Jun 2015: 3,973 maintenance inspections	
13	No of plants inspected by BIRU staff (during construction and after construction & after ASS/After Sales Service)	Overall: 6,557 inspections  a. 572 inspections during construction  b. 5981 inspection after construction (4,846 plants already received ASS)  Jan-Jun 2015: 383 inspections	
14	Bio-slurry activities	<ul> <li>a. Bio-slurry trainings Jan-Jun 2015, attended by 962 users (739 males; 223 females).</li> <li>b. Bio-slurry ToT 3 times (1 in Central Java, 2 in South Sulawesi), attended by 7 persons from CPO's management and 7 masons.</li> <li>c. "Soil Sampling"Training in Malang, June 11 – 13, 2015. Attended by 16 surveyors, 3 officials of KAN Jabung, MMO and OFO.</li> <li>d. Soil sampling test in 9 provinces (192 samples (92 users and 92 non users), from 14 May until2 June 2015.</li> <li>e. Soil sample analysis are conducted in 4 Laboratories in East Java, West Java and NTB.</li> <li>f. Three demo-plots conducted in Central Java.</li> </ul>	Soil sampling campaign within the Climate Smart Agriculture Bio-slurry Project.

No.	Output	A	chievements	Remarks/target
15	Biogas appliances R&D	<ol> <li>The manual instruction to produce a purification</li> <li>Kick off , of the local work appliances (gas tap and</li> </ol>		
16	Contribution from Gol		ement between BIRU and GOI: 5 utions: EUR 295,293 Total digesters to 705 units.	be
17	Biogas Expertise Centre activity	There is no activity conducte Expertise Centre.	d in this first semester by the Biogas	
18	External training and workshop participation	Province National Total	Number of activities  1 1	BIRU is participated in the 3 <sup>rd</sup> Bioenergy Week, in Medan 25th-29 <sup>th</sup> of May 2015
19	External workshops organized	Province  Lampung  South Sulawesi  Total	Number of activities  2  1  3	
20	Internal workshops/ meetings organized	National:  1. PC Meeting, Jakarta 2. "Organic Waste Pot Technical Faculty of 2015.  3. Local Stakeholder of Standard Agricultur participants and 3 s  Provincial:  1. CPOs meeting in Bat Communication, Do 2. CPO meeting in Bat Denpasar, 21 May 2 3. CPO Management 2015 attended by 2 Klaten, 26 – 27 Man official.	ion, Feb va:	
21	No of coordination meetings with Gol	Province	Number of activities	
		National .	3	
		Lampung West Java & Banten	3	
		Central Java & Banten	9	
		East Java	0	
		Bali	1	
		NTB	2	
		NTT	1	
		South Sulawesi	28	
		Total	48	

### 1. Introduction

This report is an interim report of the Indonesia Domestic Biogas Programme (IDBP) submitted to the Royal Norwegian Embassy, for the period of January – June 2015. Highlighting the results from the period against the overall target outputs in accordance with the agreement between Hivos and the Embassy. The total number of digesters constructed between 1<sup>st</sup> January 2015 until 30<sup>th</sup> June 2015 is 812 units, located in 10 provinces in Indonesia' of which 440 units under the Norwegian Embassy fund, and 372 units under the EnDev Programme fund. Detailed implementation activities are explained in the next chapters.



A Happy family user with biogas lamp in Sumba (NTT)

### 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 the programme aims to expand the use of bio-digester technology by farmers to improve the waste management leading to reduction of greenhouse gas emission. The emission reduction calculation is conducted 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 fulfill the necessary respective functions.

The expansion of the biogas adoption by more farmers will create job opportunities in biogas sector (contractors, masons, input suppliers, training institutions and the users themselves) and in the long run will 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.



Biodigester construction in West Java

### 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 Yayasan Rumah Energy (YRE). Apart from funding from the Norwegian Embassy, IDBP also receives funds from EnDev Programme. The official Indonesia government counterpart of Hivos is the Ministry of Social Affairs.

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, the representatives including relevant government agencies, DGNREEC, civil society and the supporting donors. On 8th of July 2015, DGNREEC facilitated a meeting between IDBP and six MEMR provinces agencies, where BIRU plan to be implemented under the funding of MCA-I and Norway Embassy from January 2016 until December 2018. In addition to the existing provinces, there will be three more provinces including Jambi, Southeast Sulawesi and West Kalimantan. In total, the National Biogas Advisory Committee from 2016 onwards will consist of 13 provinces. The first Advisory Committee meeting in 2015 will be undertaken at the end of August 2015.

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 provinces 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 more than 60 construction partner organizations (CPOs) which are groomed to provide high-quality biogas digesters for 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 Yayasan Rumah Energi (YRE) and since then has become the only direct implementing partner of Hivos. 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. YRE 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 YRE as an institution. YRE branches in the provinces also serve as PBPOs for IDBP.

### 4. Overview January-June 2015

#### 4.1. Expected Result 1

3,600 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: 3,600 digesters installed in 6 provinces in line with IDBP standards for construction, appliances, user training, aftersales services and inclusion of women

Target number of digesters to be constructed by December 2015 is 3,129 whereas the midterm target till June was 1,564 digesters. By June 2015, 812 total digesters have been built and operated, or 52% of the target. The main reason for the slow construction is due to many new recruited CPOs, which by this period have just starting their businesses, other reason is due to delays in the cooperation with the government.

By June 2015. the IDBP programme is operating in 112 districts in ten provinces (West Java, Banten, Central Java, Yogyakarta, East Java, Bali, Lombok, South Sulawesi, Lampung and Sumba). A total of 64 CPOs were involved in the construction of these digesters and the quality of the digesters is highly satisfactory: The BIRU annual biogas user survey indicate that more than 97 percent of the digesters are functioning.

Provinces	Target Jan 2015 - Dec 2015	Output Jan- June 2015	Norway-funded	EnDev-funded
Bali	300	72	72	
West Java	300	17		17
Central Java and DIY	600	182		182
East Java	270	173		173
Lampung	165	52	52	
South Sulawesi	824	223	223	
NTB	570	14	14	
Sumba NTT	100	79	79	
Total	3,129	812	440	372
	Output %		54	46

Table 1: Target and actual output in 2015

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

To support the dissemination of the BIRU programme, BIRU has conducted a large number of community meetings and promotional activities. These include the dissemination of information via print and electronic media, printing material (brochures), as well as through seminars or other presentations designed for specific audiences and existing forums.

From January up to June 2015, 108 awareness meetings have been conducted in 10 provinces where BIRU is already established. BIRU has reached 31,59% (2786) women participants from total 8.817 people. Yet, the increment of women participants is only contributed by two provinces (West Java & NTT) which achieve at least 30% women participants. The reason for this high participation rate is a concern of women on maintenance of a system like a digester in these provinces, while men's responsibility is the material fulfillment to run a digester. Meanwhile, other provinces still have the lack of women's participation, mainly caused by cultural norms that still consider meetings and other similar activities belong to the a male domain. Also, most of the meetings were conducted in cooperative meeting or farmer group fora of which members are mostly men.



Women promoter in Central Java

### 4.1.3. 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. Therefore the BIRU programme provides training to the user after a digester is constructed. Both male and female adults are invited to participate in the training. From Jan-Jun 2015, 868 users have been trained, 682 male (79%), and 186 female (21%). This number achieved 107% from the targeted indicator, but the participation of women is lower than targeted 30%.

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

To ensure the continued operation of all digester installed, the BIRU program applies quality standards. One of the standard is a trained construction worker (masons and supervisors) who were certified through the masons training. The training covered a standard procedure on how to construct a proper digester. From January 2015 until June 2015 around 86 construction workers consist of 75 mason, and 11 supervisor were trained and certified by the BIRU program.

No	Provinces	# Masons	# Supervisors
1	Lampung	0	0
2	West Java & Banten	19	5
3	Central Java & Yogyakarta	29	2
4	East Java	0	0
5	South Sulawesi	1	1
6	Bali	0	0
7	NTT (Sumba)	26	3
8	NTB	0	0
	Total	75	11
		8	6

Table 2: New Masons and Supervisors period Jan - Jun 2015



Mason refreshment training conducted in NTB

### 4.1.5.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) 2014, 82% of the biogas users are already using bio-slurry as fertilizer. From this percentage, 84% use it in dried form and 26% in liquid form. In the bio-slurry users training, 23% of the participants are female, and 77% male.

The bio-slurry training activities progress from January to June 2015 has been low due to the slow progress of construction. The reason include; (i) new CPOs in West Java & Banten area have just started building digesters, and have not yet participated in CPOs bio-slurry ToT and (ii) in NTB, CPO's dependency on the government biogas project is high, while GOI construction projects would not start until August-September and finish before December 2015.

So far the project had identified 16 female biogas users in 2 provinces that currently selling bio-slurry.

No	D	Participants of Bio-slurry Training		
No	Province	Male	Female	
1.	West Java	7	1	
2.	Central Java and DIY	319	41	
3.	East Java	380	169	
4.	Lampung	24	10	
5.	NTB	9	2	
Total		739	223	

Table 3: Number of participants of Bio-slurry trainings in 10 provinces



Bio-slurry training conducted in Bali

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

Quality Inspector (QI), from the PBPO (Provincial Biogas Program Offices) will visit bio-digester randomly to check the quality during construction, after construction and 9 or 18 months after sales, the CPO (Construction Partner Organization) has an obligation to check 100% of the digester at 9 and 18 months after sales. The main purpose of this activity is to ensure that each digesters constructed meet the BIRU standard, and each digesters is working properly. Also to guarantee that the digesters will continue operated within guaranty phase.

From Jan to June 2015, a total of 383 quality inspection have been conducted, 37 conducted during the construction of the digester and 346 conducted for the digester after constructed. There are 46 ASS quality inspection for the previous year digested also conducted during this period.

Quality Inspection during construction		Quality Inspection after construction		Quality Inspection after ASS period	
Target: 10% Unit	Result Achieved Unit	Target: 15% Unit	Result Achieved Unit	Target: 5% Unit	Result Achieved Unit
81	37	99	346	41	46
	46%		350%		

Table 4: IDBP Quality Inspection (Quality Check) from January to June 2015

#### 4.2 Expected Result 2

The biogas sector is 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

From January-June 2015, IDBP recruited 13 new partners, and the total number of partners up to date is 64. The new partners had all received mason trainings and technical assistance to start the biogas business in their organization. The process of establishing a partnership between IDBP and a new partner takes two months in average, during that time the content of the Agreement is intensively discussed. Overall, all partners understand the content and agreed to adopt the IDBP standard.

No	Name Of New Construction Partners	Province
1	CV. Bina Energi Mandiri Persada	Central Java
2	CV. H&B Putra Mandiri	Central Java
3	LSPI At-Tayseer	Central Java
4	CV. Nur Indah Karya	South Sulawesi
5	CV. Pratama Butiti Jaya	South Sulawesi
6	CV. Joy	Sumba (Ntt)
7	Lembaga Sosial Waimaringi	Sumba (Ntt)
8	Yayasan Foremba	Sumba (Ntt)
9	Yayasan Harapan Sumba	Sumba (Ntt)
10	Yayasan Satu Visi	Sumba (Ntt)
11	KPGS	West Java
12	KUD Puspa Mekar	West Java
13	Pinbuk Banten	West Java

Table 5: List of New IDBP Partners, Jan-Jun 2015

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

The first quarter of 2015 proved to be quite challenging for IDBP. 13 new partners were recruited. The newly recruited partners need an intensive support especially in the marketing and promotion, construction and administrative process. In addition to the 13 partners, 51 existing partners also required intensive assistance and monitoring, especially in the marketing efforts they undertook, as well as access to credit facility. Old and new partners were in areas where credit facility is not available, starting from 2014 have had the opportunity to access loans from Kiva, a micro-finance institution from the U.S. In 2015, IDBP facilitated 7 partners to access the Kiva loans. Details on the partners' access to credit facility is explained on section 4.2.3 below.

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

In total, 24 lending partners of IDBP (see annex 5) are now linked to credit providers such as Nestlé, Rabobank Foundation, Kiva, Credit Union, and other institutions. Since 2010, Hivos has a partnership with Nestlé's CSR Program, conducting a biogas credit financing for milk suppliers in East Java. Under this partnership, Nestlé provides low-interest loans to dairy farmer members of Nestlé dairy cooperatives partners, which are BIRU construction partners (CPOs) and lending partner organizations (LPOs). In January-June 2015, Nestlé interest-free loan had supported 53 farmers to construct bio digesters. The loan that has been disbursed during January to June amounted to IDR 323,340,775 (EUR 21,920.18).



Kiva field visit in Central Java

The partnership with Rabobank Foundation (RBF) which started in 2014, has supported 1102 farmers to access credit for biogas. The total amount of disbursed loans are IDR 4,988,911,000 (EUR 338,132.68). From January to June 2015, the loans from RBF has supported 15 farmers with the amount of IDR 94,929,000 or EUR 6,435.5. The loans are channeled from Rabo Bank International Indonesia to selected cooperatives directly. Most of the RBF Lending Partners are dairy cooperatives.

During January to June 2015 period, two of RBF partner cooperatives in West Java, the KUD Puspa Mekar and Koperasi Peternak Garut Selatan (KPGS) have become IDBP Constructing Partners (CPO). These two cooperatives had received biogas loan funding amount of IDR 650,000,000 or EUR 44,054.95 with 5 year repayment period and interest rate 8% p.a. By becoming CPOs, it will be easier for IDBP for coordinating and monitoring process of the biogas sector development at West Java Province.

In June 2014, IDBP through Yayasan Rumah Energi (YRE) officially partnered with Kiva. Kiva is a U.S. based non-profit organization that allows low-income/underserved entrepreneurs lend money via internet in more than 70 countries. Since it launched on September 2014, IDBP through YRE had disbursed Kiva biogas loan through 2 CPOs in Central Java, 2 CPOs at NTB, 1 CPO at Lampung and 1 CPO at Jogjakarta and 1 CPO at South Sulawesi Provinces. The total supported farmers to install bio digester are 122, with total loan of IDR 652,500,000 (EUR 44,237.2).

During January to June 2015, the demand of Kiva loan has increased significantly. 97 farmers in 4 provinces were assisted to construct biogas with total loan disbursed EUR 21,067.81. While during September to December 2014, Kiva loan only supported 25 users with a total loan disbursed EUR 7,118.63. Kiva loan repayment runs with no report of non performing. The repayment methods as preferred by biogas users are monthly, by 3 months and by 4 months. The last two repayment methods are based on harvest time, called "Yar-nen" (pay when harvest). Loan disbursed in first semester of 2015 are detailed in the table below:

IDBP Work Area	Kiva Borrower	Loan Issued		
IDBP WORK Area	Kiva borrower	IDR	EUR	
Central Java	17	102,000,000	6,838.53	
Lampung	29	174,000,000	11,665.73	
NTB	41	236,500,000	15,856.00	
Jogjakarta	10	38,000,000	2,547.69	
Total	97	550,500,000	21,067.81	

Table 6: Kiva loans disbursement, Jan-Jun 2015

In 2015, IDBP is seeking for Kiva loans that is expected to support 935 potential borrowers in 8 existing IDBP provinces with value of EUR 356,609.44. The loans is plan to be disbursed to bio digester constructions and bio slurry home industry related businesses. Recently, IDBP through YRE is participating in Kiva due diligence process to ensure IDBP is feasible for loan disbursement of USD 200,000 credit ceiling (EUR 175,254.12). The due diligence process is expected to be completed in early August 2015.

Apart of these existing credit sources, in 2015 IDBP through YRE has signed a MoU with Inkopdit (Central of Credit Union Indonesia). Through this partnership, IDBP and Inkopdit will be able to help Credit Union members develop 1,500 bio digesters and bio slurry related business in the next two years. Inkopdit through their Provincial Puskopdits have networks of hundred Credit Union cooperatives in 32 provinces. The cooperation is expected to be one of biogas credit solution in IDBP plan to expand into new provinces.

### 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 project had identified five vermin composting business group is East java, one of the group consisted of 68

members, there are also group of vermin composting business identified in West java consisted of 10 women, one vermin compost entrepreneurs in Central Java consisted of 5 members, other identified entrepreneurs in east Java (2), Lombok (2 (1 – Woman)), Sumba (3) and South Sulawesi (4) producing and selling liquid and dried bio slurry. So far only 16 female entrepreneurs identified located in Central and West Java. Based on this data, there are less than 30% of bio slurry processing or selling conducted by women. The reasons include: (i) in most provinces, users of the bio-slurry were mainly male who used to be responsible for agriculture input, and (ii) women participation in bio-slurry training is low, which is only 23% because of the current social culture value, as almost in all provinces there is a pattern that men were prioritized for a training opportunity, while women is responsible for domestic issues such as food preparation and children rearing. The concentration of women business activities are mostly in West Java and Central Java. There are 10 women participate in the vermin-compost business in West Java, and 5 female entrepreneurs in Central Java. The vermin and compost production, produce a "mature stock" as part of fish fodder mixture, and compost to be sold as an organic fertilizer. In Central Java, the women produce liquid fertilizer, using quail's bio-slurry. The bio-slurry business is possible as (i) the site location is near the houses so it is easy for the women to taking care their children, (ii) the technology for producing liquid organic fertilizer and composting is easy and simple, and (iii) the production cost is low.

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

During the first six months of 2015, YRE gained more recognition from the Indonesian Government. YRE was invited as a local biogas actor to speak in national and international forum, such as the Bioenergy Week Forum, in May 2015. In addition to that, especially the provincial government under MEMR, have become more aware about the roles of YRE within the BIRU Programme. DGNREEC in a few meetings with Hivos also started to talk about the more significant roles of YRE in the BIRU Programme. During this report period, BIRU is in the process of creating a business model with YRE, which is to be proposed to DGNREEC by August 2015.

#### 4.2.6.5 new biogas appliance designs are developed, tested and certified for use.

Up to date, four (4) new biogas appliance designs were developed by IDBP: Sulphur purification filter, stove, gas tap and water drain.

The sulfur filter is a purifier tool that aim to reduce the level of H2S (Hydrogen Sulfide) and CO2 (Carbon Dioxide) that is contained in biogas. To make this appliance functioned well, each CPO (Construction Partner Organization) must have the knowledge on how to produce this tool, hence in the first semester of 2015 IDBP, has made a manual as a guide to produce this purifier tool.

IDBP also develops other appliances called gas tap and water drain, these appliances are placed on the digester pipe installation, BIRU program has started cooperation with local home industry in Central Java in early February 2015. The planning is to establish a small workshop to produce a good quality gas tap and water drain.

#### 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

Biogas appliances improvement and testing was continued in this period. 4 types of stoves were tested by Institute Technology Sepuluh November, which were found to have more than 50 % efficiency. This criteria meets the Indonesian Government national standards that are stated in the National Standard of Indonesia (SNI 7368:2011) used for thermal efficiency level. Based on the efficiency results, competitive price and attractive looking, these stoves are recommended for user, however continued monitoring on the performance will be carried out, including through bi-annual Kitchen Performance Tests (KPT).

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

In the first semester of 2015, provincial government of West Nusa Tenggara and South Sulawesi have made a commitment to allocate a total of EUR 295,293 (IDR 4,134,102,908), to support domestic biogas. With the fund, 705 farmers will get access to BIRU digesters. Some of the provincial & district government use cofinancing mechanism where farmers and BIRU are still contribute to the total price of a digester. However, some local governments are still unwilling to apply the system due to the nature of the funding sourced from the State Budget which does not allow to be used as a matching fund. The details of the allocated funds from the government is explained below.

No	Government Body	Allocated funds	Targeted constructed units
1	Provincial Energy Departments Ministry of Energy and Mineral Resources Lombok Utara 2015	EUR 128,214 (IDR 1,795,000,000)	422
2	Mining and Energy Agencies Barru District South Sulawesi 2015	EUR 43,628 (IDR 610,788,750)	67
3	Natural Resource Management Agencies Ministry of Energy and Mineral Resources Wajo South Sulawesi 2015	EUR 42,743 (IDR 598,398,158)	65
4	Maros District Government South Sulawesi 2015	EUR 42,185 (IDR 590,590,000)	71
5	Bantaeng District Government South Sulawesi 2015	EUR 38,523 (IDR 539,326,000)	80
	TOTAL	EUR 295,293 (IDR 4,134,102,908)	705

Table 7: Gol Alocated Funding For Biogas

#### 4.3.3. Establishment and functioning of a Domestic Biogas Expertise Centre

A Biogas Expertise Center was established under the Ministry of Energy and Mineral Resources and SNV Senior Advisor was providing training to the staff of the Department. It was continued till the end of 2014 where more than 15 staff of department got acquainted with biogas technology, biogas use, standardization, quality control system, appliances testing and designs, bio slurry utilization and biogas promotion and marketing. As ministry staff are too busy in 2015 and regular training was difficult to manage, it was decided to organize such training only as and when necessary. However, necessary inputs and advices are provided as per request of the Ministry particularly in regards to appliances standardization, carbon financing mechanism and bio-slurry utilization.

### 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

The coordination at the provincial level was conducted between March – May 2015, where 7 of IDBP provincial teams conducted stakeholder meetings to report on the progress in each provinces. In addition to that, the IDBP management from the National office, attended 4 meetings at provincial and district levels. In August 2015, a National Biogas Advisory meeting will be conducted.

### 5. Other Relevant Activities

#### 5.1.IDBP Carbon Credit Mechanism

IDBP is registered under a Voluntary Gold Standard Programme of Activities for the carbon credit mechanism (PoA ID GS 1172, VPA-1 ID GS 1174). This year, the second monitoring and verification activity is being done to calculate the emission reductions realizes from the digesters that were built from 1 June 2013 to 31 December 2014. The monitoring process is assisted by Climate Focus, a Dutch consulting company based in the Netherlands, and was verified by a Designated Operation Entity (DOE) from TuV Nord, based in Malaysia.

During this process, a field visit was conducted in Bandung, West Java by IDBP team, Climate Focus and the DOE on April 2015. Households were visited, after which the DOE submitted his comments about the BIRU programme that needed to be answered. That process was finished by the end of May 2015, and the draft of Monitoring Report and request for issuance of the carbon was already submitted to the Gold Standard in mid-June 2015, and should take up to 4 weeks to get a response from them. It is expected that during this monitoring period, the emission reductions realized from cumulative number of 14,139 BIRU bio-digesters will be 54,059 tCO2e.

#### 5.2. Kick-starting Gold Standard Agriculture Mechanism

A feasibility study on "Climate Smart Agriculture" in bio-slurry usage within the biogas user and non-user farmland was conducted by Hivos and Soil&More International B.V (SMI) in January 2014. It was the first step of carbon credit requirement of Gold Standard Agriculture (GSA). Then the 2nd step was for Hivos to conduct the Local Stakeholder Consultative (LSC) Meeting: IDBP – Gold Standard Agriculture, which was held in Jakarta on March 15, 2015 and was attended by 27 participants and 3 speakers. The 3rd step that IDBP did was to conduct soil sampling in 9 provinces of IDBP working area May 14 – June 2, 2915. After taken the soil from the user and non-user biogas, the soil are sent to the 4 selected-labs for nutrient and physical analysis. The 4th step, IDBP will send the soil sample test report to SMI in order to be analyzed and together Soil and More to register the programme under the Gold Standard Agriculture carbon mechanism.

#### 5.3. W+ Standard

In November 2014, Hivos started out an initiative to measure more impacts of biogas on women. Hivos worked together with Women Organizing for Change in Agriculture & Natural Resource Management (WOCAN). Wocan has developed a unique certification label, the W+ Standard, that endorses projects that create increased social and economic benefits for women participating in economic development or environment projects. These include those that provide renewable energy technologies, time and labor saving devices, forest and agriculture activities, and employment opportunities. The W+ framework quantifies and monetizes the social capital created by women, to recognize and reward their contributions to sustainable environments and communities. There are six domains that are covered in this standard:

- 1. Time saving,
- 2. Income and asset,
- 3. Food security,
- 4. Knowledge and education,
- 5. Health, and
- 6. Leadership

The activities consist of three parts; the first part was an assessment to see the level of viability of the W+ in the context of the Indonesia Biogas Development Project (IDBP), with the goal to develop a Project Design Document for measuring the time savings generated for women through adoption of biogas. From this assessment, it was found out that the amount of time saving by women who use BIRU is 1.5hrs per day/household, or a total of 2,500,000 W+ units. The assessment was carried out from 16 to 22 November.

The second part of the exercise is the monitoring period by Wocan in February 2015, to determine the roles of women and men in the management and operation of biogas and to determine if there is differential access to resources (e.g. loans and services) related to biogas technology. This was followed by the identification of opportunities in existing project activities that could be built upon to generate pathways to other W+ domains beyond the Time Domain. Local savings and loans schemes were also identified to explore the potential for a benefit sharing mechanism that would be needed for the direct share payments that would accrue from the sale of W+ units in the future. The third part of the activities is to have the BIRU-W+ adoption validated by a W+ auditor, also to ensure that there is a benefit sharing mechanism that can be applied in within the project. The last activity was conducted from 6-7 July 2015. It is expected that IDBP will be registered under W+ Standard by the end of August 2015. The next steps will be to conduct a marketing exercise to sell the Time-saving units to generate income for the Programme, and be channeled into women groups as a revolving funds for productive income-generating activities, starting in 2016.

#### 5.4. Dbase Management Improvement Pilot

In 2014, IDBP was elected as one of the programmes to get MRV+ pilot project from KfW (a bank institution from Germany) and Hivos Head Office. After pilot project phase that used in one our CPO, in 2015 we tried to evaluate the benefit and challenges of using MOGLI (the mobile application for MRV+). Based on the evaluation, IDBP wants to upscale MOGLI to all provinces as part of database management improvement. But first IDBP has to resolve the challenges. This will be done in the second semester of 2015.

#### 5.5. Market Survey (group 1)

In cooperation with the DGNREEC as well as with the upcoming Millenium Challenge Account Indonesia (MCA-I) programme, a plan to expand IDBP to other provinces will be initiated at the end of 2015. The long-term expected expansion areas for IDBP programme will be 7 new provinces.

In order to support the expansion of programme areas, the IDBP programme, led by Hivos and YRE planned to conduct market surveys in 2 groups. During January to April 2015, IDBP has conducted market survey into 7 new provinces, such as Jambi, Sumatra Barat, Sulawesi Barat, Sulawesi Tenggara, Kalimantan Barat, Kalimantan Tengah and Kalimantan Utara. In the fieldwork, the market survey were conducted by a hired consultant, who managed a team of enumerators, which have to assess the feasibility and market development for domestic biogas programme. In these areas, the survey activities were focused on beef cattle, pigs, or chicken, depending on specific local potentials, and also matching with MCA-I priority areas. And this market survey also covered areas that received DAK funds from DGNREEC programme and thus are perceived potential to be linked up for BIRU programme's expansion, such as local MFIs or other financial institutions.

Based on first market survey result, IDBP decided to expand the programme into 3 new provinces, i.e. Jambi, Kalimantan Barat and Southeast Sulawesi.

### 6. Challenges and Lesson Learned

#### 6.1. Women and Bio-slurry Income Generating Activity.

IDBP needs biogas credit financing partners who have the same vision in community development. A partnership between Yayasan Rumah Energi through IDBP and Kiva shows that kind of common vision. IDBP must develop the Kiva loan scheme not only for biogas construction, but also in bio-slurry utilization as home industry for biogas users in remote areas.

In most of the 10 provinces that IBP is working at, bio-slurry activities are usually done by male users. A few female users are keen to do the bio-slurry activities both in farmland and as home industry as part of income additional. The number of female users that are involved in bio-slurry usage in the field are West Java (10 female users) and Central Java (5 female users).

Increased female participation is not only pushed related to training, but they should also be more involved in empowering activities. The challenges include (i) how to change the mind-set that female/women can be involved in the bio-slurry usage and business activities, (ii) how to change the socio-culture within users regarding women helping family income and work around their house, (3) to recruit a gender specialist to be involved in the bio-slurry activities.

#### 6.2. Creative way to prevent Non Performing Loan.

IDBP CPOs have realized the risk in executing Kiva loan, so in order to prevent Non Performing Loans, they developed a prevention method. Those methods which are done by LKM, YM3S and LPPNU are placing the staff in borrowers group, creating a saving account for installment and collecting bio-slurry from each Kiva borrower to create bio slurry related businesses.

#### **6.3. Communication and promotion activities:**

Dissemination of information in provinces where BIRU is operated, still remains a priority activity to promote awareness. Hence, there are two issues to be improved include:

- (i) Meeting documentation, include minutes of meeting, consistent participants' registration, need to be conducted and documented systematically by the IDBP partners to gain better data of events.
- (ii) The promotion or awareness session reporting 8,817 people participated, while there were 812 digesters built. With better promotion material and activity, result could be improved.

### **Annex**

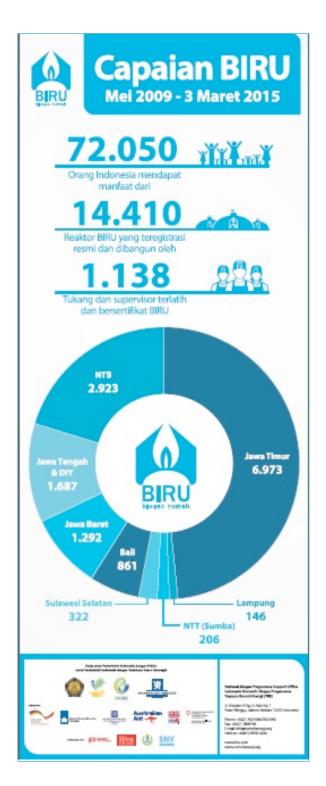
#### **Annex 1: BIRU Office Addresses**

No	Province	Address	Phone and Fax
1	Jakarta	Jl. Ampera IV Gg. H. Rais no. 1, Jakarta 12550	Ph :+62 21 7821090 +62 21 7821086 Fax :+62 21 7808115
2	West Java	Jalan Tanjidor No 19 Turangga, Bandung Jawa Barat	Ph/Fax: +62 22 7308287
3	Central Java	Jl. 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
5	Bali	Jl. Jata No.4 Gianyar. Gianyar Bali	0817 356 028
6	NTB	Jl. Kebyar Nomor 7 Mataram, Mataram - Nusa Tenggara Barat	Ph/Fax: +62 370 630580
7	South Sulawesi	JI. 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 NTT	Jln Palapa no 31 matawai Kecamatan kota waingapu - Kabupaten Sumba Timur, Nusa Tenggara Timur	Tlp/Fax:+62387- 61865

#### **Annex 2: Promotion and Marketing Materials**



Roll-up banner of Bio-Slurry



Roll-up banner of BIRU Achievement 2009 – 2015



Folded Brochure BIRU: 1.000 pcs (Distributed in Lampung & South Sulawesi)



Leaflet Sumba: 500 pcs (Distributed in Sumba)



Brochure KIVA: 500 pcs (distributed in Central Java)



Brochure Bio-Slurry: 1.000 pcs (distributed in Lampung & South Sulawesi)



Warta BIRU Vol. 4 - Newsletter: 2.000 pcs (distributed in 10 provinces)



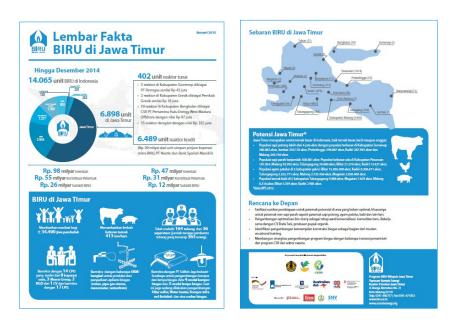
BIRU T-Shirt: 60 pcs (distributed in Central Java)



Banner Stakeholder Meeting Lampung: 1 pcs distributed in Lampung



Sticker Vinyl #PooPower – Sumba: 1 pcs distributed in Sumba



Factsheet of BIRU in East Java: (print on demand)



BIRU Hat: 50 pcs Distributed in 9 provinces

## **Annex 3: List of Construction Partners**

No	Name Of Construction Partners	Province								
	SME									
1	Abadi Mason Group	Bali								
2	Dewata Mason Group	Bali								
3	CV. Mitra Artha Utama (Mitra Sehati)	West Java								
4	CV. Jaya Perkasa Utama	West Java								
5	Pinbuk Banten	West Java								
6	Boyolali Mason Group	Central Java								
7	CV. Sarana Sejahtera	Central Java								
8	LKM Rukun Makmur	Central Java								
9	Pinbuk	Central Java								
10	Qariyah Thayyibah	Central Java								
11	CV. Bina Energi Mandiri Persada	Central Java								
12	CV. H&B Putra Mandiri	Central Java								
13	KTM Malang	East Java								
14	Langit Biru Mason Group	East Java								
15	Sumber Makmur Mason Group	East Java								
16	Persada Mason Group	East Java								
17	CV. Fitria Jaya Abadi	Lampung								
18	Regol Mason Group	Lampung								
19	Harapan Bersama Mason Group	Lampung								
20	UD. Bontomaranmu	South Sulawesi								
21	Mitra Sarana Kuba Mg	South Sulawesi								
22	CV. Ritma Green Sinergy	South Sulawesi								
23	Mandiri Mason Group	South Sulawesi								
24	Mabarakka Mason Group	South Sulawesi								
25	CV. Pratama Butiti Jaya	South Sulawesi								
26	CV. Nur Indah Karya	South Sulawesi								
27	Mason Group Sangkareang	NTB								
28	Mason Group Paroso	NTB								
29	CV. Joy	NTT								
	NGO									
30	Idep Selaras Alam	Bali								
31	Yayasan Manikaya Kauci	Bali								
32	Yayasan Kontak Indonesia	West Java								
33	LPTP	Central Java								
34	Yayasan Sion	Central Java								
35	Yayasan Suara Bhakti	Central Java								
36	Yayasan Trukajaya	Central Java								
37	LSPI At-Tayseer	Central Java								
38	LPKP	East Java								
39	LPPAB	East Java								
40	Yayasan Lembaga Pembinaan Masyarakat Desa (Ylpmd)	Lampung								
41	Lembaga Pengembangan Pertanian (Lpp) - Nu	Lampung								
42	Pusat Studi Pembangunan	NTB								

No	Name Of Construction Partners	Province
43	Yayasan Pilah	NTB
44	YM3S	NTB
45	YSLPP	NTB
46	Yayasan Alam Lestari	Sumba (NTT)
47	Yayasan Foremba	Sumba (NTT)
48	Lembaga Sosial Waimaringi	Sumba (NTT)
49	Yayasan Harapan Sumba	Sumba (NTT)
50	Yayasan Satu Visi	Sumba (NTT)
	COOPERATIVE	
51	KUD Puspa Mekar	West Java
52	KPGS	West Java
53	Koperasi Andini Luhur	Central Java
54	KAN Jabung	East Java
55	KUD Semen	East Java
56	KUD Tani Makmur	East Java
57	KUD Tani Wilis	East Java
58	SAE Pujon	East Java
59	Setia Kawan	East Java
60	Sri Wigati	East Java
61	Sumber Makmur Ngantang	East Java
62	KSU Bulu Saukang	South Sulawesi
63	KPRI Prisma	NTB
64	Koperasi Jasa Peduli Kasih	Sumba (NTT)

## **Annex 4 List of Credit Providers**

## 1. Nestlé 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. Others

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

# **Annex 5 List of IDBP Working Areas (Districts and Subsdistricts)**

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010-2015	
		2010	Pujon, Ngantang, Jabung, Kasembon, Dau, Karangploso, Wagir, Singosari	1	8
	Kabupaten	2011	Poncokusumo, Bantur, Gondonglegi, Pakis, Medowo, Lawang, Wonoagung	0	7
	Malang	2012	Bayem, Pait, Pondok Agung, Blimbing, Tumpang, Sukosari, Turen	0	7
		2013	Pagelaran, Kedung Kandang, Wajak	0	3
		2014	Sumber Manjing Wetan, Sumber Puncung	0	2
		2010	Kandangan, Kepung, Puncu, Pagu, Wates, Ngancar	1	6
	W1!::	2011	Plosoklaten, Gurah, Kandat	0	3
	Kediri	2012	Medowo, Mlancu, Segaran	0	3
		2015	Mojoroto	0	1
		2011	Wonosalam, wulung, Bareng	1	3
	Jombang	2012	Galengdowo	0	1
		2010	Gandusari	1	1
		2011	Semen, Wlingi	0	2
	Blitar	2012	Sanan Kulon	0	1
		2013	Kanigoro, Talun, Srengat, Garum, Doko, Ponggok	0	5
		2014	Wonodadi, Sukorejo	0	2
		2015	Kademangan, Udanawu	0	2
	Pasuruan	2010	Tutur, Purwodadi, Puspo	1	3
East Java		2011	Grati, Blarang, Lumbang, Nongkojajar, Tlogosari, Wonosari, Nguling, Lekok	0	8
		2012	Ngembal	0	1
		2013	Pasrepan	0	1
		2011	Pacet	1	1
	Mojokerto	2013	Trawas	0	1
	Tulungagung	2011	Ngunut, Sendang, Pagerwojo, Kedung waru, Rejotangan, Sumber Gempol	1	6
	raidingagang [	2014	Karangrejo, Pucang Laban	0	2
		2011	Junrejo	1	1
	Kota Batu	2014	Bumiaji	0	1
	Probolinggo	2011	Krucil	1	1
		2011	Bendungan, Pule, Kelutan	1	3
	Trenggalek	2015	Suruh	0	1
		2010	Senduro	1	1
		2011	Tempeh , Kunir, Kandang tepus, Kedung jajang	0	4
	Lumajang	2013	Sukodono, Padangan, Rowokangkung	0	3
		2014	Tekung	0	1
		2011	Ambulu	1	1
	Jember	2015	Gumuk Mas, Tanggul, Tempurejo, Tempursari, Puger, Wuluhan	0	6

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010	-2015
	Ngawi	2011	Bringin, Geneng, Pitu, Ngawi, Ngrambe	1	5
	. rigurri	2014	Sine	0	1
		2011	Pudakwetan, Sooko	1	2
	Ponorogo	2012	Kauman, Krisik, Pulung, Ponorogo, Siman, Jambon	0	6
	Tonorogo	2013	Ngrayun, Balong, Sukorejo, Slahung	0	4
		2014	Badegan, Mlarak	0	2
	Magetan	2011	Bulugunung, Panean	1	2
	Madiun	2013	Dolopo	1	1
	Banyuwangi	2013	Bangurejo, Siliragung	1	2
	Sumenep	2013	Ganding	1	1
			Total East Java	18	129
		2010	Kedawung, Plupuh	1	2
		2011	Gemolong, Sambirejo, Sragen	0	3
	Sragen	2012	Ngrampal, Miri	0	2
		2013	Sambung Macan, Karang Malang	0	2
		2014	Masaran, Gondang	0	2
	Wonogiri	2010	Wonogiri, Ngadirojo	1	2
		2011	Giriwolyo	0	1
		2012	Nguntoronadi, Tirtomoyo	0	2
		2013	Baturetno, Batuwarno, Jatipurno, Puhpelem	0	4
	Banjar negara	2011	Bawang, Pejaweran, Manadadi	1	3
		2013	Mandiraja	0	1
		2011	Jumantono, Jatipuro, Jatiyoso, Tawangmangu, Matesi, Sambat	1	6
	Karanganyar	2012	Mojogedang, Lempong, Jaten, Jenawi, Ngargoyoso, Jumapolo	0	6
C . II		2013	Kerjo, Bolong	0	2
Central Java		2014	Tasikmadu, Gondangrejo	0	2
		2010	Nguter	1	1
	Sukoharjo	2011	Gatak, Bendosari, Palokarto, Tawangsari	0	4
		2011	Purwodadi, Wirosari	1	2
	Grobogan	2012	Krajan	0	1
		2010	Selomerto	1	1
		2011	Kepil	0	1
	Wonosobo	2012	Wadaslintang	0	1
		2015	Mojotengah	0	1
		2011	Cawas, Kemalangan, Bayat, Jogonayan, Karanganom	1	5
	Klaten	2012	Jogonalan, Kalikotes, kebon arum, Kebon dalem, Kemalang, Manisrenggo, Polanharjo, Prambanan, Trucuk, Tulung, Balerejo, Delanggu	0	12
	Materi	2013	Karangdowo	0	1
		2014	Karangnongko	0	1
		2015	Besaran	0	1

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010-2015	
		2010	Mojosongo, Teras, Selo	1	3
		2011	Karanggede, Sambi, Simo, Musuk, Ampel, Klego	0	6
	Boyolali _	2012	Andong, Bendungan, Cepogo, Angsuk, Kemusu, Lencohkelo	0	6
		2013	Banyudono	0	1
		2014	Sidomulyo	0	1
		2015	Nogosari	0	1
		2011	Dukun	0	2
	Magalang	2012	Salam, Srumbung, Ngablak, Sawangan	0	4
	Magelang	2013	Borobudur, Grabak	0	2
		2015	Muntilan, Pakis	0	2
		2010	Temanggung, Kaloran	1	2
	Tamaan	2013	Tlogomulyo, Kranggan, Parakan	0	3
	Temanggung	2014	Bulu	0	1
		2015	Pringsurat, Gemawang	0	2
		2010	Tengaran, Suruh, Ungaran, Sumowono, Gunung pati, Getasan, Pabelan, Bergas, Tembalang, Susukan	1	10
	Kabupaten	2011	Plupuh, Ungaran Barat, Banyubiru, Kaliwungu	0	4
	Semarang	2012	Bancak	0	1
		2013	Kedung Mungdu, Tuntang, Bandungan, Bawen	0	4
		2010	Argomulyo	1	1
		2011	Sidorejo	0	1
	Salatiga	2012	Tingkir	0	1
		2014	Sidomukti	0	1
		2011	Japah	1	1
	Blora	2012	Sambong	0	1
		2013	Ngawen	0	1
	Banyumas	2011	Sokaraja	1	1
		2011	Nglipar	1	1
		2012	Panggang, Sapto Sari	0	1
	Gunung Kidul	2013	Ponjong, Wonosari	0	2
		2015	Playen, Semin, Gedang Sari	0	3
		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
	Rembang	2013	Lasem, Pamotan, Sedan, Gunem	0	4
		2015	Kragan, Sulang	0	2
		2011	Bojo	1	1
	Kendal	2013	Singorojo	0	10

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010-2015	
		2012	Gabus, Jakenan	1	1
	Pati	2013	Tayu	0	1
		2014	Wedarijaksa	0	1
		2015	Tambakromo, Donorejo, Margoyoso, Juwana	0	4
	Pemalang	2012	Pemalang	1	1
	Kudus	2015	Gebog	1	1
	Kebumen	2015	Kebumen, Poncowarno	1	1
	Brebes	2012	Paguyangan	1	1
		2010	Pundong, Bambanglipuro, Jetis, Srandakan,	1	4
		2011	Pleret	1	1
	Bantul	2012	Kretek, Piyungan, Banguntapan, Pandak, Pundong, Sedayu, Sewon	0	7
		2013	Dlingo, Sanden, Imogiri	0	3
		2015	Pajangan	0	1
		2010	Cangkringan	1	1
Yogyakarta		2011	Sawangan, Ngluwar, Candi Mulyo	0	3
	Sleman	2013	Turi, Ngemplak, Berbah, Tempel, Moyudan, Ngaglik	0	6
		2014	Pakem	0	1
		2015	Mlati, Minggir, Moyudan	0	3
	Kulon Progo	2012	Galur, Kokap	1	2
		2013	Kalibawang, Lendah	0	2
		2015	Sentolo	0	1
		Tota	ll Centra Java/Yogya	28	215
		2010	Pangalengan	1	1
	Kabupaten	2011	Kertasari, Pacet, Arjasari, Ciwidey, Pasirjambu, Majalaya	0	6
	Bandung	2012	Soreang	0	1
		2014	Cileunyi, Cilengkrang, Cimeunyan	0	3
	Cianjur	2011	Gekbrong, Cipanas	0	3
		2011	Cicurug, Sukaraja, Cibodas	1	3
		2012	Purabaya	0	1
	Sukabumi	2013	Sukalarang, Cikembar	0	2
		2014	Nyalindung, Surade	0	2
West Java		2010	Lembang, Cisarua	1	2
	Bandung	2012	Parongpong	0	1
	Barat	2014	Ngamprah		
		2010	Bayongbong, Cigedug, Bluburlimbangan, Cisurupan	1	4
		2011	Cikajang	0	1
	Garut	2012	Tarogong kaler, Selawi, Pamengpeuk, Karangpawitan	0	4
		2013	Cihurip, Banjarwangi	0	2
		2014	Cikancung	0	2
		2011	Ciater, Sagalaherang, Jalancagak	1	4
	Subang	2013	Ciasem	0	1

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010	-2015
	-	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	0	3
	Pagar	2011	Nanggung, Cisarua, Megamendung	1	3
	Bogor	2012	Bojong Gede	0	1
	Kota Bandung	2011	Dago, Puncrut	1	2
		2011	Sliyeg	1	1
	Indramayu	2012	Sindeng	0	1
		2014	Arjasari	0	1
	V i	2011	Cigugur	1	1
	Kuningan	2014	Maleber	0	1
	C: 1	2011	Talun	1	1
	Cirebon	2012	Gempol	0	1
	Tasikmalaya	2012	Karangnunggal	1	1
	5.1	2013	Bojong Manggu, Tambun Selatan	1	2
	Bekasi	2014	Jati Sampurna	0	1
	Pangandaran	2015	Padaherang	1	1
	5 1 1	2011	Citeureup	1	1
	Pandeglang	2012	Bojong, Koroncong, Carita, Panimbang	0	4
Banten	Serang	2013	Waringin kurung	1	1
	Lebak	2015	Cibadak, Warung Gunung	1	2
	Tangerang	2012	Jambe	1	1
DKI Jakarta	Jakarta Selatan	2012	Pancoran, Mampang Prapatan, Cikoko	1	3
		V	/ Java (and Banten)	20	85
	Enrekang	2011	Cendana, Maiwa, Enrekang, Anggeraja, Baraka, Buntu batu, Malua, Alla, Curio, Baroko, Masalle	1	11
		2011	Sinjai Selatan	1	1
	Sinjai	2012	Sinjai Timur, Tellu Limpoe, Sinjai Barat, Sinjai Tengah	0	4
		2015	Sinjai Utara	0	1
		2011	Bengo, Sua Baccoe	1	2
South Sulawesi		2012	Kahu, Patimpeng	0	1
Jaiawesi	Bone	2013	Amali, Tonra, Lamuru, Lappariaja	0	4
		2014	Barebbo, Awangpone	0	2
		2015	Tanete Riattang, Tellu Siattinge	0	2
		2012	Simbang	1	1
	Maros	2013	Tompobulu	0	1
		2014	Tanralli	0	1

Province	District/city	Year	Sub-district	Total District	Tot SD
				2010	-2015
	Takalar	2012	Galesong Selatan	1	1
	Takalai	2013	Polombangkeng Selatan, Polombangkeng Utara, Mappakasunggu	0	3
	Tana Toraja	2013	Makale Utara, Saogalla Selatan	1	2
	Bulukumba	2013	Bulukumpa, Gantarang, Kajang	1	3
	Bulakamba	2015	Bontotiro	0	1
	Gowa	2013	Bontonompo	1	1
	Gowa	2015	Bontoramba	0	1
	Jeneponto	2013	Bangkala	1	1
	Waio	2013	Gilireng	1	1
	Wajo	2015	Takkalalla, Penrang	0	2
	Soppeng	2013	Mario Riawa, Donri-donri, Lalabata	1	3
	Parru	2013	Barru	1	1
	Barru	2015	Tanete Riaja	0	1
	Pangkajene Kepulauan	2015	Balocci, Mandalle, Labakkang, Ma'Rang, Tondong Tallasa	1	5
		To	otal South Sulawesi	13	57
	Lombok Tengah	2010	Pujut	1	1
		2012	Batukliang, Jonggat, Kopang, Praya Barat, Pringgarata, Janapria, Praya Timur	0	7
		2014	Batukliang Utara	0	1
	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
	Lombok	2011	Tanjung, Pemenang, Gondang	1	3
	Utara	2012	Bayan, Gangga, Kayangan	0	3
		2010	Suralaga, Labuhan Haji	1	3
		2011	Aikmel, Wanasaba, Sikur, Montong Gading	0	5
Nusa Tenggara	Lombok	2012	Pringgabaya, Pringgasela, Keruank, Jeruklegi, Selong, Wanasaba, Kota Raja	0	7
Barat	Timur	2013	Masbagik, Terara	0	2
		2014	Kelayu	0	1
		2015	Sambelia	0	1
		2012	Mataram	1	1
	Mataram	2013	Sanubaya	0	1
	6 1	2012	Moyohilir, Moyo Utara, Tarano	1	3
	Sumbawa	2013	Labuhan Badas, Maronge, Lopok, Smapuin	0	4
		2012	Seteluk	1	1
	Sumbawa Barat	2013	Pototano	0	1
	Daial	2014	Brang Ene, Brang Rea, Jereweh, Maluk, Taliwang, Rempe	0	5
		2013	Bima, Soromandi, Rasanae	1	3
	Kota Bima	2014	Palibelo, Bolo	0	2
	Dompu	2013	Dompu, Kramat Mulya	1	2

Sumba Barat	Province	District/city	Year	Sub-district	Total District	Tot SD
Gianyar   2011   Ubud, Tegalalang   0   2					2010	-2015
Sumba Barat		_	2010	Payangan	1	1
		Gianyar	2011	Ubud, Tegalalang	0	2
Rab.Bangli		Giariyai	2012	Blahbatuh, Tegal Kolong	0	2
Rab.Bangli   2011   Susut, Bangli, Kintamani   0   3   3			2013	Tampak Siring, Sukawati	0	2
Badung   2012   Sawan   0   1   1   1   1   1   1   1   1   1			2010	Tembuku	1	1
Balung         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         1         3           2014         Marga         0         1         4         1         4         4         1         4         4         1         4 <t< td=""><td></td><td>Kab.Bangli</td><td>2011</td><td>Susut, Bangli, Kintamani</td><td>0</td><td>3</td></t<>		Kab.Bangli	2011	Susut, Bangli, Kintamani	0	3
Badung         2012         Kuta Utara, Abiansemal         0         2           Arbitan         2013         Kuta Selatan         0         1           Arbitan         2011         Selemadeg, Kerambitan, Baturiti         1         3           Arbitan         2012         Penebel         0         1           Arbitan         2013         Kediri, Slemadeg Timur         0         2           Arbitan         2014         Marga         0         1           Arbitan         2013         Kediri, Slemadeg Timur         0         1           Arbitan         2014         Marga         0         1           Arbitan         2013         Kubu Kanbahan, Serintan         0         1           Arbitan         2012         Denpasar Selatan         1         1         1           Arbitan         2012         Denpasar Selatan         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         2         2         1         1         1         2         1         1         1         2			2012	Sawan	0	1
Bali         2013         Kuta Selatan         0         1           Tabanan         2012         Selemadeg, Kerambitan, Baturiti         1         3           Bali         2012         Penebel         0         1           2014         Marga         0         1           Klungkung         2011         Klungkung, Banjarangkan, Dawan, Tagak         1         4           Klungkung         2013         Banjaranekan         0         1           2012         Sukasadaya, Banjar         0         2           2011         Melaya         1         1           2011         Melaya			2011	Abiansemal, Petang, Mengwi, Kertabuana	1	1
Page		Badung	2012	Kuta Utara, Abiansemal	0	2
Bali         Tabanan         2012         Penebel         0         1           2014         Marga         0         1           2014         Marga         0         1           Klungkung         2011         Klungkung, Banjarangkan, Dawan, Tagak         1         4           Buleleng         2010         Tejakula, Gerokgak         1         2           Denpasar         2012         Sukasadaya, Banjar         0         2           2013         Kubu Tambahan, Seririt         0         2           2011         Denpasar Selatan         1         1           2011         Melaya         1         1           3011         Melaya         1         1           4         2011         Mendoyo         0         1           Karang Asem         2012         Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya         0         5           Selayar         2011         Payangan         1         1           Selayar         2011         Payangan         1         1           Sumba Brarat Daya         2011         Wewewa Timur, Kodi         1         2			2013	Kuta Selatan	0	1
Page			2011	Selemadeg, Kerambitan, Baturiti	1	3
Bali         2013         Kediri, Slemadeg Timur         0         2           2014         Marga         0         1           2011         Klungkung, Banjarangkan, Dawan, Tagak         1         4           2010         Tejakula, Gerokgak         1         2           Buleleng         2012         Sukasadaya, Banjar         0         2           2013         Kubu Tambahan, Seririt         0         2           2012         Denpasar Selatan         1         1           2012         Denpasar Utara         0         1           2011         Melaya         1         1           2012         Negara         0         1           2011         Kubu, Bebandem         1         2           Karang Asem         2012         Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya         0         5           Selayar         2011         Payangan         1         1         1           Selayar         2011         Payangan         1         1         1           Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         1         2           Sumba Timur         2012         Kanatang, Lewa         0<		Tahanan	2012	Penebel	0	1
Riungkung   2011   Klungkung, Banjarangkan, Dawan, Tagak   1   4		Tabanan	2013	Kediri, Slemadeg Timur	0	2
Klungkung         2011         Klungkung, Banjarangkan         1         4           Buleleng         2012         Sudasadaya, Banjar         0         1           Buleleng         2012         Sukasadaya, Banjar         0         2           2013         Kubu Tambahan, Seririt         0         2           Denpasar         2011         Denpasar Selatan         1         1           Jembrana         2012         Denpasar Utara         0         1           Jembrana         2012         Negara         0         1           Karang Asem         2012         Mendoyo         0         1           Karang Asem         2011         Kubu, Bebandem         1         2           Selayar         2011         Pempatan, Abang         0         2           Selayar         2011         Payangan         1         1           Sumba Barat         2011         Wewewa Timur, Kodi         1         2           Sumba Barat         2012         Weetabula, Loura, Wewewa Barat         0         1           Daya         2013         Tambolaka         0         1           Sumba (NTT)         2011         Kanatang, Lewa	Del:		2014	Marga	0	1
Buleleng	Ball	121	2011	Klungkung, Banjarangkan, Dawan, Tagak	1	4
Buleleng   2012   Sukasadaya, Banjar   0   2   2   2   2   2   2   2   2   2		Klungkung	2013	Banjaranekan	0	1
Denpasar   2013   Kubu Tambahan, Seririt   0   2   2   2   2   2   2   2   2   2			2010	Tejakula, Gerokgak	1	2
Denpasar         2011         Denpasar Selatan         1         1           Jembrana         2012         Denpasar Utara         0         1           Jembrana         2011         Melaya         1         1           Jembrana         2012         Negara         0         1           Zo13         Mendoyo         0         1         2           Karang Asem         2011         Kubu, Bebandem         1         2           Selayar         2012         Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya         0         5           Selayar         2011         Payangan         1         1           Selayar         2011         Payangan         1         1           Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         2           Sumba Barat Daya         2012         Weetabula, Loura, Wewewa Barat         0         3           Sumba Timur         2015         Kodi Utara         0         1           Sumba Timur         2011         Kambera, Waingapu, Pandawai         1         3           Sumba Timur         2013         Nggaha Ori Angu, Wulu Waijelu         0         2           Sumba Timur		Buleleng	2012	Sukasadaya, Banjar	0	2
Denpasar         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           Selayar         2012         Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya         0         5           Selayar         2011         Payangan         0         2           Sumba Barat Daya         2011         Payangan         1         1         1           Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         2         2           Sumba Barat Daya         2012         Weetabula, Loura, Wewewa Barat         0         3         3         3         3         3         3         3         3         1         2         3         3         3         3         1         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3			2013	Kubu Tambahan, Seririt	0	2
Sumba   Sumb		Denpasar	2011	Denpasar Selatan	1	1
Jembrana   2012   Negara   0   1			2012	Denpasar Utara	0	1
Sumba   Sumba   Timur   Sumba   Timur   Sumba   Sumb		Jembrana	2011	Melaya	1	1
Sumba (NTT)       2011       Kubu, Bebandem       1       2         Sumba (NTT)       2012       Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya       0       5         Selayar       2011       Pempatan, Abang       0       2         Sumba Barat (NTT)       2011       Payangan       1       1         2011       Wewean Timur, Kodi       1       2         2012       Weetabula, Loura, Wewewa Barat       0       3         2013       Tambolaka       0       1         2015       Kodi Utara       0       1         2011       Kambera, Waingapu, Pandawai       1       3         2012       Kanatang, Lewa       0       2         2012       Kanatang, Lewa       0       2         2014       Pinu Pahar, Kahangu Eti       0       2         2015       Umalulu       0       1         Sumba Tengah       2012       Katikutana       1       1         Tengah       2012       Kota Waikabubak       1       1         Sumba Barat       2012       Kota Waikabubak       1       1         Tana Riu       0       1       1 <td< td=""><td></td><td>2012</td><td>Negara</td><td>0</td><td>1</td></td<>			2012	Negara	0	1
Karang Asem         2012         Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya         0         5           Selayar         2011         Pempatan, Abang         0         2           Sumba Farat (NTT)         2011         Payangan         1         1           2012         Wewa A Bali         19         119           2013         Wewewa Timur, Kodi         1         2           2013         Tambolaka         0         1           2015         Kodi Utara         0         1           2015         Kodi Utara         0         1           2012         Kanatang, Lewa         0         2           Sumba Timur         2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           Sumba Barat         2012         Kota Waikabubak         1 <td< td=""><td></td><td>2013</td><td>Mendoyo</td><td>0</td><td>1</td></td<>			2013	Mendoyo	0	1
2014         Pempatan, Abang         0         2           Selayar         2011         Payangan         1         1           Total Lombok and Bali         19         119           Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         2           Sumba Daya         2012         Weetabula, Loura, Wewewa Barat         0         3           Sumba Daya         2013         Tambolaka         0         1           2015         Kodi Utara         0         1           2015         Kodi Utara         0         1           3         2012         Kanatang, Lewa         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           Sumba Barat         2014         Tana Riu         0         1		Karang Asem	2011	Kubu, Bebandem	1	2
Selayar   2014   Pempatan, Abang   0   2			2012	Manggis, Karang asem, Rendang, Sidemen, Selat, Seraya	0	5
Total Lombok and Bali         19         119           Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         2           Sumba Barat Daya         2012         Weetabula, Loura, Wewewa Barat         0         3           Sumba Timur (NTT)         2015         Kodi Utara         0         1           Sumba Timur (NTT)         2011         Kambera, Waingapu, Pandawai         1         3           Sumba Timur (NTT)         2012         Kanatang, Lewa         0         2           Sumba Timur (NTT)         2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           Sumba Tengah Tengah         2012         Katikutana         1         1           Sumba Barat Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat Tengah         2012         Kota Waikabubak         1         1           Sumba Barat Tengah         2014         Tana Riu         0         1			2014	Pempatan, Abang	0	2
Sumba Barat Daya         2011         Wewewa Timur, Kodi         1         2           Sumba Daya         2012         Weetabula, Loura, Wewewa Barat         0         3           2013         Tambolaka         0         1           2015         Kodi Utara         0         1           2012         Kanbera, Waingapu, Pandawai         1         3           2012         Kanatang, Lewa         0         2           2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           Tana Riu         0         1         1         1		Selayar	2011	Payangan	1	1
Sumba Barat Daya         2012         Weetabula, Loura, Wewewa Barat         0         3           Sumba (NTT)         2013         Tambolaka         0         1           Sumba (NTT)         2015         Kodi Utara         0         1           Sumba Timur         2011         Kambera, Waingapu, Pandawai         1         3           2012         Kanatang, Lewa         0         2           2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           Tana Riu         0         1         1         1			То		19	119
Daya         2013         Tambolaka         0         1           2015         Kodi Utara         0         1           Sumba (NTT)         Sumba Timur         2011         Kambera, Waingapu, Pandawai         1         3           2012         Kanatang, Lewa         0         2           2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           2014         Tana Riu         0         1			2011	Wewewa Timur, Kodi	1	2
Sumba (NTT)         Daya         2013         Tambolaka         0         1           Sumba (NTT)         Z015         Kodi Utara         0         1           Sumba (NTT)         Z011         Kambera, Waingapu, Pandawai         1         3           Sumba Timur         2012         Kanatang, Lewa         0         2           2013         Nggaha Ori Angu, Wulu Waijelu         0         2           2014         Pinu Pahar, Kahangu Eti         0         2           2015         Umalulu         0         1           Sumba Tengah         2012         Katikutana         1         1           Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           2014         Tana Riu         0         1			2012	Weetabula, Loura, Wewewa Barat	0	3
Sumba (NTT)       2011       Kambera, Waingapu, Pandawai       1       3         Sumba (NTT)       2012       Kanatang, Lewa       0       2         Sumba Timur       2013       Nggaha Ori Angu, Wulu Waijelu       0       2         2014       Pinu Pahar, Kahangu Eti       0       2         2015       Umalulu       0       1         Sumba Tengah       2012       Katikutana       1       1         Tengah       2014       U Ratu Nggai Barat       0       1         Sumba Barat       2012       Kota Waikabubak       1       1         2014       Tana Riu       0       1			2013	Tambolaka	0	1
Sumba (NTT)       2012       Kanatang, Lewa       0       2         Sumba Timur       2013       Nggaha Ori Angu, Wulu Waijelu       0       2         2014       Pinu Pahar, Kahangu Eti       0       2         2015       Umalulu       0       1         Sumba Tengah       2012       Katikutana       1       1         Tengah       2014       U Ratu Nggai Barat       0       1         Sumba Barat       2012       Kota Waikabubak       1       1         2014       Tana Riu       0       1			2015	Kodi Utara	0	1
(NTT)       Sumba Timur       2012       Kanatang, Lewa       0       2         2013       Nggaha Ori Angu, Wulu Waijelu       0       2         2014       Pinu Pahar, Kahangu Eti       0       2         2015       Umalulu       0       1         Sumba Tengah       2012       Katikutana       1       1         Tengah       2014       U Ratu Nggai Barat       0       1         Sumba Barat       2012       Kota Waikabubak       1       1         2014       Tana Riu       0       1			2011	Kambera, Waingapu, Pandawai	1	3
(NTT)       Sumba Timur       2013       Nggaha Ori Angu, Wulu Waijelu       0       2         2014       Pinu Pahar, Kahangu Eti       0       2         2015       Umalulu       0       1         Sumba Tengah       2012       Katikutana       1       1         Tengah       2014       U Ratu Nggai Barat       0       1         Sumba Barat       2012       Kota Waikabubak       1       1         2014       Tana Riu       0       1		Sumba Timur	2012	Kanatang, Lewa	0	2
2014 Pinu Pahar, Kahangu Eti       0       2         2015 Umalulu       0       1         Sumba Tengah       2012 Katikutana       1       1         2014 U Ratu Nggai Barat       0       1         Sumba Barat       0       1         2012 Kota Waikabubak       1       1         2014 Tana Riu       0       1	(NTT)				0	
Sumba Tengah       2012       Katikutana       1       1         Sumba Tengah       2014       U Ratu Nggai Barat       0       1         Sumba Barat       2012       Kota Waikabubak       1       1         2014       Tana Riu       0       1			2014		0	2
Sumba Tengah         2012         Katikutana         1         1           Sumba Barat         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           2014         Tana Riu         0         1					0	
Tengah         2014         U Ratu Nggai Barat         0         1           Sumba Barat         2012         Kota Waikabubak         1         1           2014         Tana Riu         0         1		Sumba			1	
Sumba Barat         2012         Kota Waikabubak         1         1           2014         Tana Riu         0         1		I -				
Sumba Barat 2014 Tana Riu 0 1						
					-	
				Fotal Sumba (NTT)	4	21

Province	District/city	Year	Year Sub-district	Total District	Tot SD
				2010-2015	
	5	2012	Padang Cermin	1	1
	Pesawaran	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	Way Pengubuan, Kalirejo, Gunung Sugih, Bekri	0	4
	Kota Metro	2013	Metro Utara, Metro Timur, Metro Selatan	1	3
Lampung	Lampung Timur	2013	Batang Hari, Way Jepara, Pasir Sakti, Braja Selebah, Raman Utara	1	5
		2014	Sekampung, Pekalongan	0	2
	Lampung Selatan	2013	Natar, Jati Agung	1	2
		2014	Sukabumi, Sidomulyo, Merbau Mataram	0	3
	Bandar Lampung	2014	Kemiling	1	1
	Pringsewu	2014	Adi Luwih, Gading Rejo	1	1
	Pesisir Barat	2014	Bengkunat	1	1
	Pagar Alam	2015	Dempo Tengah, Dempo Selatan	1	2
			Total Lampung	10	35
otal number of districts and sub-districts 2009 - 2015			112	661	

# Annex 6. List of Joint Cooperation Hivos and Government of Indonesia for Biogas Digesters Construction

## Period: Jan – June 2015

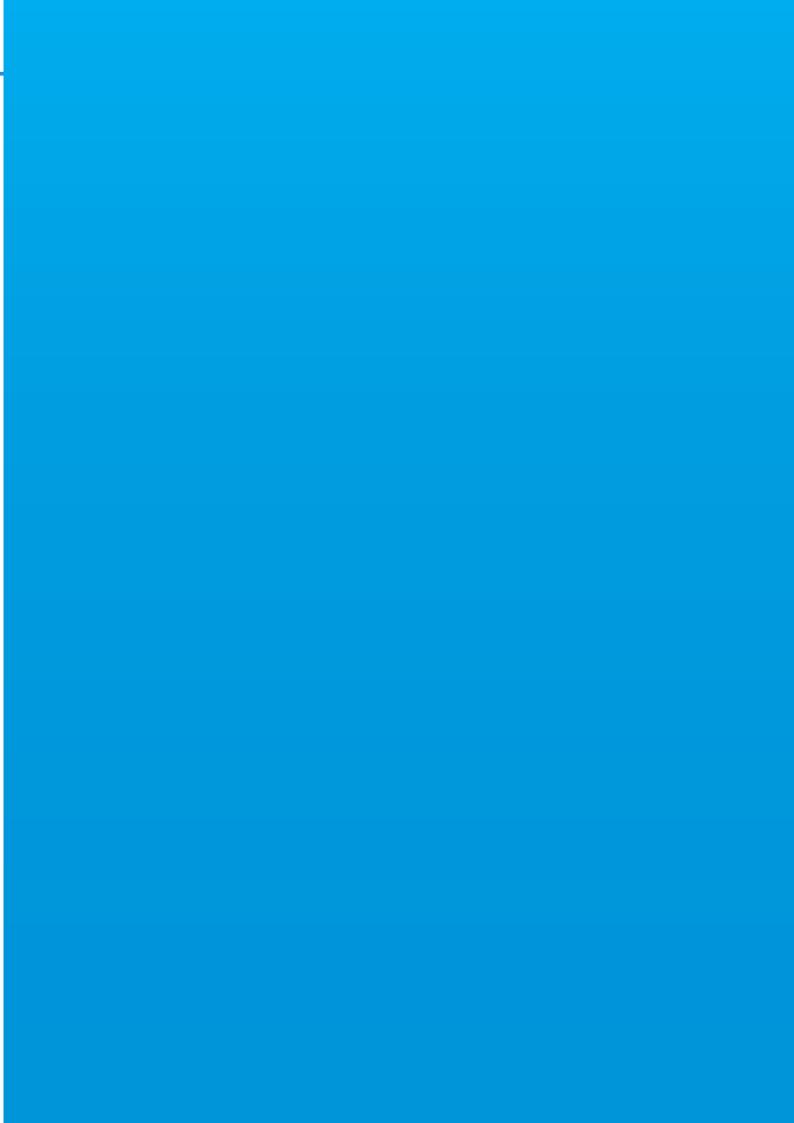
No	Name of MoU			
1.	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Lombok Utara 2015			
2.	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Kabupaten Barru Sulawesi Selatan 2015			
3.	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Kabupaten Wajo Sulawesi Selatan 2015			
4.	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Maros 2015			
5.	MoU Hivos with Provincial Energy Departments Ministry of Energy and Mineral Resources Kabupaten Bantaeng Sulawesi Selatan 2015			

# **Annex 7 List of Meetings and Workshops**

Activity	Date	Place
External training and workshop participation		
EBT diskusi panel Universitas Indonesia	24 March 2015	Depok
Green building stimulation training	27 – 29 April 2015	Bandung
3rd Global Bioenergy Partnership/ GBEP conference	25 – 29 May 2015	Medan
MCAI meeting	25 June 2015	Jambi
MCAI Workshop	10 June 2015	Jakarta
MCAI meeting	9 February 2015	Makassar
MUSREMBANG REGIONAL SULAWESI	5 March 2015	Makassar
MUSREMBANG Provinsi	30 March 2015	Makassar
National Seminar "National Energy Implementation for National Energy Sustainability"	04 April 2015	Makassar
Workshop Penghargaan Energi	21 May 2015	EMR Central Java Province
External workshops organized		
Local Stakeholders Consultation Meeting for qualification of Gold Standard Agriculture	20 March 2015	Jakarta
Coordination meeting with Gol		
Meeting with Department Animal Husbandry Lampung Province	20 January  , 2015	Lampung
Meeting with Meeting with Secretary of Energy and Mining Department	8 April, 2015	Lampung
Market Survey meeting with EBTKE	23 January 2015	Jakarta
Meeting with EBTKE PLTBm	26 January 2015	Waikabubak , NTT
Rakornas DAK Energi Pedesaan Berbasis Bioenergi	12 May 2015	Central Java
Lampung Stakeholders Meeting for IDBP Progress & Biogas Credit Potential 2015	9 June 2015	Bandar Lampung
Meeting with Head of PU, Tamben & Energi KLU	24 March 2015	Lombok
Stakeholder meeting	12 May 2015	Lombok Utara
Meeting with EMR South Sulawesi	29 April 2015	Jakarta
Meeting with Yayasan Kalla team	14 January 2015	Makassar
Stakeholder Meeting	19 May 2015	Makassar
MUSREMBANG Regional Sulawesi	05 March 2015	Makasar
Meeting with EMR Enrekang and Mabaraka Mason Group	08 January 2015	Makassar
Meeting and BIRU socialization with Head Division of Mining Bantaeng	22 January 2015	Makassar
Meeting with Head Section of Energy EMR Wajo	23 January 2015	Makassar
Meeting with Mining Head Divison Kabupaten Takalar and CPO UD. Bontomarannu	26 January 2015	Makassar
Meeting with EMR Maros	3 February 2015	Makassar
First coordination meeting with EMR Kabupaten Soppeng	05 February 2015	Makassar
Meeting with Energy Head Division EMR Enrekang and Mason Group Mabarakka	23 February 2015	Makassar

Activity	Date	Place
Coordination meeting with EMR Luwu Timur Head Division and Head of Environment Conservation of Electricity EMR Province	06 March 2015	Makassar
Coordination meeting with Wakil Bupati Luwu Utara, Camat Berau, Tim Dinas ESDM Kab. Luwu Timur (Sekretaris, Kasi Energi), Kasi Konservasi & Lingkungan Ketenagalistrikan Dinas ESDM Provinsi, PC Sulsel.	07 March 2015	Makassar
Coordination meeting awal with EMR Palopo and Head of Environment Conservation of Electricity EMR Province.	08 March 2015	Makassar
Coordination meeting with Head Division of EMR Selayar	13 March 2015	Makassar
Coordination Meeting with Head Divison of Animal Husbandry Kabupaten Selayar and EMR Province.	14 March 2015	Makassar
Coordination meeting with Section Head Energi Kelistrikan Kabupaten Wajo	20 March 2015	Makassar
Coordination meeting with BLHD Bidang Pertambangan Kota Parepare.	10 April 2015	Makassar
Coordination meeting with tim Dinas Pertambangan & Energi Kabupaten Soppeng bersama Kasi Konservasi & Lingkungan Ketenagalistrikan Dinas ESDM Provinsi di kantor Dinas Pertambangan & Energi Kabupaten Soppeng dilanjutkan dengan verifikasi lapangan & calon penerima bantuan biogas.	11 April 2015	Makassar
Meeting with EMR Kabupaten Maros	13 April 2015	Makassar
Coordination meeting with Kabid Energi Dinas ESDM Wajo di Mall Panakukang Makassar	30 April 2015	Makassar
Coordination meeting with Kepala Dinas ESDM Kab. Jeneponto bersama dengan Kabid Energi di ruang kerja Kepala Dinas ESDM Jeneponto	12 May 2015	Makassar
Technical Meeting ERM Kab. Bantaeng	12 May 2005	Makassar
Coordination Meeting with Bupati Bantaeng	14 May 2015	Makassar
Stakeholder Meeting in BLHD Provinsi Sulsel	19 May 2015	Makassar
Coordination meeting with Head Division of ERM Luwu Timur	10 June 2015	Makassar
Coordination meeting with Section Head of ERM Wajo	13 June 2015	Makassar
Meeting koordinasi with ERM Kab	29 June 2015	Makassar
Coordination meeting with EMR Department Solo	6 February 2015	Central Java
Coordination meeting with EMR Blora	3 March 2015	Central Java
Coordination Meeting with EMR Solo	31 March 2015	Central Java
Coordination Meeting with EMR DIY	13 April	Central Java
Coordination Meeting with Bappeda Bantul	14 April 2015	Central Java
Stakeholder meeting Central Java provinsi Jawa Tengah di kantor Balai ESDM, Solo.	23 April 2015	Central Java
Coordination meeting with EMR DIY	24 April 2015	Central Java
RAKORNAS DAK Energi Terbarukan di BAPPEDA, Yogya.	12 Mei 2015	Central Java
Kiva Coordination Meeting:		•
Kiva Loan Socialization Meeting to all Lampung CPOs at YRE Lampung Provincial Offices	February 2015	Lampung
Lampung Potential Credit Financing at Local Stakeholders Coordination Meeting, Lampung Provincial ESDM Office	June 2015	Lampung

Activity	Date	Place
Kiva Loan Coordination Meeting with YRE Central Java/Jogjakarta Team at YRE Central Java / Jogjakarta Office	February 2015	Klaten
Kiva Loan Coordination Meeting with LKM "Rukun Makmur" at LKM office	May 2015	Karanganyar
Kiva Loan Socialization Meeting to Yayasan "At-Tayseer" at Yayasan "At-Tayseer" Office	May 2015	Rembang
Kiva Loan Socialization Meeting to CV. BEM Persada at Instiper	February 2015	Jogjakarta
Kiva Loan Socialization Meeting to PINBUK Jogjakarta at PINBUK Office	February 2015	Jogjakarta
Kiva Loan Coordination Meeting with YM3S at YM3S Office	April 2015	East Lombok
Kiva Loan Coordination Meeting with Kiva "Lembah Rinjani Group" at "Lembah RInjani" Group Coordinator Residence, Bangle	April 2015	East Lombok
Kiva Loan Socialization Meeting to potential Kiva borrowers, the "Santih Pelangi" and "Sekar Pelangi" Groups at Lunyuk Village Hall	April 2015	Sumbawa Besar
Kiva Loan Socialization Meeting to KSP "Sunari Jaya" (potential LPO), "Dewata" MG and "Abadi" MG at KSP "Sunari Jaya" Office	March 2015	Klungkung
Kiva Loan Socialization Meeting to KSU "Karya Nadhi" (potential LPO) and Yayasan "Manikaya Kauci" at KSU "Karya Nadhi" Office	March 2015	Ubud
Kiva Loan Socialization Meeting to IDEP at YRE Bali Provincial Office	March 2015	Gianyar



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