

**REPUBLIC OF INDONESIA  
THE PREPARATORY SURVEY  
FOR  
IKK WATER SUPPLY SYSTEM DEVELOPMENT  
SECTOR LOAN PROJECT**

**FINAL REPORT**

**VOLUME V  
SUPPORTING DATA**

- APPENDIX 1 BASIC DATA OF SATKER  
APPENDIX 2 BASIC DATA OF 50 SPAM IKK  
APPENDIX 3 BASIC DATA OF PDAM AND BLU  
APPENDIX 4 RESULTS OF INTERVIEW SURVEY  
FOR BENEFICIARIES  
APPENDIX 5 SOCIAL BASELINE DATA  
APPENDIX 6 FIELD REPORT OF 50 SPAM IKK**

**NOVEMBER 2010**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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**NIPPON KOEI CO.,LTD  
KRI INTERNATIONAL CORP.**

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Exchange Rate

USD 1 = Rp. 8,452

Rp. 1 million = USD 118.3

Yen 100 = Rp. 9,768.84

Rp. 1 million = Yen 10,237

(July 30, 2010)

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## **APPENDIX 1 BASIC DATA OF SATKER**

*North Sumatra*

*West Sumatra*

*Riau*

*Jambi*

*South Sumatra*

*Lampung*

*Bengkulu*

*Banten*

*West Java*

*Central Java*

*East Java*

*Yogyakarta*

*West Kalimantan*

*East Kalimantan*

*South Kalimantan*

*Central Kalimantan*

*Central Sulawesi*

*South Sulawesi*

*South-East Sulawesi*

*North Sulawesi*

*Gorontalo*

### Selection of Provincial SatKer with regard to Technical Aspect

According to the results of the interview survey with provincial SatKers during the on-site review (details are shown in APPENDIX 1), their technical capacity are evaluated as follows:

1) Number of technical engineers

Based on the number of technical engineers in the provincial SatKer, a score of 1 is given for those with 1 to 5 technical engineers; 3 for those with 6 to 10; and 5 for those with more than 10.

2) Preparation of development plan

Based on the role of the provincial SatKer in the preparation of the development plan particularly in the selection procedures of SPAM IKK, a score of 1 is given in case the development plan is prepared “without” the provincial SatKer and 5 in case preparation is done “with” the provincial Satker.

3) Preparation of proposal

Similar to the development plan, a score of 1 is given in case the proposal is prepared “without” the provincial SatKer and 5 in case of preparation “with” provincial Satker.

4) Number of proposal sent to central government

Based on the yearly average number of proposals sent to the central government, a score of 1 is given for those with 1 to 5; 3 for those with 6 to 10; 5 for those with 11 to 15 and 7 for those with more than 15.

5) Percentage of adopted proposal sent to central government

Based on the yearly average percentage of adopted proposals, a score of 1 for those with 0% to 30% adopted proposals; 5 for those with 31% to 60%; and 10 for those with more than 60%.

6) Number of planning SPAM IKK (2010-2014)

The data is taken from the PMU, Cipta Karya. These numbers indicate the capacity of the provincial SatKer for the SPAM IKK program because this plan is made by the provincial SatKer and the district. A score of 1 is given for those with 0 to 20; 3 for those with 20-29; and 5 for those with more than 30.

The technical capacity of each SatKer is evaluated based on the above conditions as shown in the following table. The SatKer of North Sumatra, Central Java and East Java obtained high scores in Region I while South Sulawesi obtained a high score in Region II.

SatKer	Operation status		Implementation status of SPAM IKK									Total Point		
	Number of Technical Engineer	Point	Preparation of development plan		Preparation of proposal		Number of proposal sent		Percentage of approval		Number of Planning SPAM IKK (2010-2014 from PMU)			
			Point	Point	Point	Point	Point	Point	Point	Point				
Region I	NORTH SUMATRA	13	5	PDAM & Prov.SatKer	3	PDAM & Prov.SatKer	3	5-6	3	50%	3	27	3	20
	WEST SUMATRA	8	3	PDAM	1	PDAM	1	10-13	5	50%	3	28	3	16
	RIAU	11	5	PDAM	1	PDAM	1	1-3	1	50%	3	43	5	16
	JAMBI	6	3	PDAM & Prov.SatKer	3	PDAM	1	10-15	5	50%	3	22	3	18
	SOUTH SUMATRA	7	3	PDAM	1	PDAM	1	10-15	5	50%	3	22	3	16
	LAMPUNG	3	1	PDAM	1	PDAM	1	20-23	7	30%	1	28	3	14
	BENGKULU	8	3	SatKer.Pusat	1	PDAM & Prov.SatKer	3	7-10	3	50%	3	31	5	18
	BANTEN	5	1	PDAM	1	PDAM & Prov.SatKer	3	15	5	50%	3	28	3	16
	WEST JAVA	6	3	PDAM	1	PDAM & Prov.SatKer	3	3-5	1	70%	5	40	5	18
	CENTRAL JAVA	15	5	PDAM	1	SatKer.Prov	3	10-15	5	50%	3	65	5	22
	EAST JAVA	12	5	PDAM & Prov.SatKer	3	PDAM & Prov.SatKer	3	12-15	5	50%	3	39	5	24
	YOGYAKARTA	9	3	PDAM & Prov.SatKer	3	PDAM & Prov.SatKer	3	1-5	1	75%	5	6	1	16
	WEST KALIMANTAN	2	1	PDAM & Prov.SatKer	3	PDAM	1	1-3	1	50%	3	44	5	14
	EAST KALIMANTAN	7	3	PDAM & Prov.SatKer	3	PDAM & Prov.SatKer	3	1-5	1	50%	3	21	3	16
Region II	SOUTH KALIMANTAN	2	1	PDAM	1	PDAM	1	12	5	50%	3	35	5	16
	CENTRAL KALIMANTAN	3	1	PDAM	1	PDAM	1	7	3	50%	3	38	5	14
	CENTRAL SULAWESI	6	3	Prov. SatKer	3	PDAM	1	10	3	50%	3	24	3	16
	SOUTH SULAWESI	5	1	SatKer.Prov	3	Prov. SatKer	3	7	3	50%	3	34	5	18
	SOUTH-EAST SULAWESI	7	3	PDAM	1	PDAM	1	9-12	5	50%	3	28	3	16
	NORTH SULAWESI	10	3	PDAM & Prov.SatKer	3	PDAM & Prov.SatKer	3	2-3	1	50%	3	19	1	14
	GORONTALO	5	1	Din C/K Kab	1	Prov. SatKer	3	5	1	50%	3	10	1	10

Source: JICA Study Team 2010

Province : North Sumatera

1. Established Year : 2006
2. Number of staff : 54
- Categories Management : 3 Administrative : 31 Engineer : 13
- Technical : 5 Others : 7
- Educations University : 29 High school : 24 Junior high school : 3
- Elementary high school : 4
3. Organization chart : -

4. Regulation of Satuan Kerja, Scope of Work : For FY 2010: Decree of Head of Satker of Water Supply Dev. No. 01/KPTS/SK PKPAM-SU/2010. Scope of work:Preparing work program and preparation of proposal and budgetting proposals; coordinating the related institutions; implementing the supervision, control and implementation of p[rogram based on the program plan (DIPA/PO); managing the general administration and financial of the program;and implementing the hand over to the Kabupaten/Kota Government

5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja : No data

7. Selection procedure of SPAM IKK Sumbul
- PDAM & Prov. Satker. PDAM- Prov. Satker-Central Satker
- Preparation of development plan : But D/D was done by consultant selected by Central Satker - Flow chart of planning
- Criteria of Selection : Water shortage area and low income population
8. Proposal to Central Government
- Preparation of proposal : PDAM & Prov. Satker
- Components of proposal

D/D and project outlin : D/D for the intake and WTP was done by consultant that selected by Central Satker

Water source permission : (SIPA)

Not yet, since the intake was located in the conservation forest of Lae Pandom, and when Dinas PU constructed the inspection road for the intake based on the request from PDAM, then, the issue of permit from "Ministry of Forestry raised. PDAM has proposed the permit in Feb 2010

Land acquisition : The land is granted by community

Local budget (APBD) : There was budget from "Stimulus Fund" for the distribution pipe in FY 2009; and for house connections shall be disbursed in FY 2010 thorough budget of PDAM

- Management Agreement : - RPIJM, development plan : No, since the RPIJM is still under preparation
- Preparation period : 2007



7. Selection procedure of SPAM IKK		Kisaran Timur	
- Preparation of development plan	: PDAM & Prov. Satker	- Flow chart of planning	: PDAM- Prov. Satker- Central Satker
- Criteria of Selection	: Water shortage area and low income population		
8. Proposal to Central Government			
- Preparation of proposal	: By PDAM & Prov. Satker		
- Components of proposal	Simple design for the deep well		
D/D and project outline	: was prepared by Provincial Satker	Water source permission (SIPA)	: No
Land acquisition	: The land belonged to Local Government (Sub-Dolog Kisaran)	Local budget (APBD)	: -
Management Agreement	: -	RPIJM, development plan	: No, since RPIJM is prepared for 2009-2013
- Preparation period	: Nov 2005		
9. - Number of proposals sent to Central Government per year		: 5- 6 proposals	
- Percentage of approval by Central government		: 3-4 proposals	

Province : West Sumatra

1. Established Year : 2005
2. Number of staff : 30
- Categories Management : 2 Administrative : 20 Engineer : 8  
Technical : - Others : -
- Educations University : 12 High school : 18 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :
- Satker in year 2010 is regulated with Ministry of Public Work decree No. 87/KPTS/M/2010
- Generally, Satker has scope of work :
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Nagari Koto Sani, Kabupaten Solok in 2007
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : No water supply system and water shortage area
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outlin : Satker Province using Province' budget Water source : -  
permission : -
- Land acquisition : Kab. Budget through PDAM Local budget (APBD) : Din C/K Kab  
Management Agreement : PDAM RPUM, development plan : Din C/K Kab
- Preparation period : about one year (see F.2)

7. Selection procedure of SPAM IKK Sumpahan, Kota Sawahlunto in 2008
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : Water shortage area and to minimize operation cost for existing city system
8. Proposal to Central Government
- Preparation of proposal : PDAM, then the proposal will be signed by Bupati
- Components of proposal
- D/D and project outlin : Satker Province using Province' budget Water source : -  
permission : -
- Land acquisition : PDAM using Kab.' Budget Local budget (APBD) : -
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

- 9 - Number of proposals sent to Central Government per year : 10 - 13 (in average)
- Percentage of approval by Central government : 50%

Province : RIAU

1. Established Year : 2005
2. Number of staff in 2010: total 37 staffs
  - Categories Management : 1(KaSatker) Administrative : 14 Engineer : 11
  - Technical : 11 Others : -
  - Educations University : 15 High school : 17 Junior high school : 5
  - Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work : -
5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja : No data

7. Selection procedure of SPAM IKK Tandun
  - Preparation of development plan : PDAM
  - Flow chart of planning : PDAM- Prov. Satker- DG Cipta Karya
  - Criteria of Selection : Water shortage area (mostly for dry season)
8. Proposal to Central Government
  - Preparation of proposal : By PDAM
  - Components of proposal
    - D/D and project outlin : Letter from Bupati
    - Water source permission : No (SIPA)
    - Land acquisition : By Local Gov. Local budget (APBD) : For distribution pipe Not attached during the
    - Management Agreement : - RPIJM, development plan : project, prepared for 2009-2013
  - Preparation period : 2007

7. Selection procedure of SPAM IKK Inuman
  - Preparation of development plan : PDAM
  - Flow chart of planning : PDAM- Prov. Satker- DG Cipta Karya
  - Criteria of Selection : Water shortage area
8. Proposal to Central Government
  - Preparation of proposal : By PDAM
  - Components of proposal
    - D/D and project outlin : Letter from Bupati
    - Water source permission : No (SIPA)
    - Land acquisition : By Local Gov. Local budget (APBD) : For distribution pipe Not attached during the
    - Management Agreement : - RPIJM, development plan : project, prepared for 2009-2013
  - Preparation period : 2007

9. - Number of proposals sent to Central Government per year : -
- Percentage of approvement by Central government : -

Province : Jambi

1. Established Year : in 2005
2. Number of staff : in 2009: total 20 staffs; in 2010: total 22 Government staffs and 6 non-
- Categories Management : 1 (KaSatker) Administrative : 16 Engineer : 6
- Technical : 6 Others : -
- Educations University : 11 High school : 12 Junior high school : 5
- Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work : Planning & implementing the water
5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja : in 2008: Rp. 13 million; 2009: Rp. 27.87 million and in 2010: Rp. 29.156 million

7. Selection procedure of SPAM IKK Candi Muaro
- Preparation of development plan : PDAM & Prov. Satker - Flow chart of planning : PDAM-Bupati-Prov. Satker-DG Cipta Karya
- Criteria of Selection : To support "herritage" of Jambi province i.e. Candi Muaro Jambi as the tourism area and the community around Candi
8. Proposal to Central Government from PDAM: sketch and budget estimation, from Bupati in the form of proposed letter (no copy of letter was available) in the Province
- Components of proposal
- D/D and project outlin : No D/D. Water source permission (SIPA) : No
- Land acquisition : By Local Gov. Local budget (APBD) : 2006 and 2009
- Management Agreement : - RPUM, development plan : No, RPIJM is just provided for 2010-2014
- Preparation period : 2004

7. Selection procedure of SPAM IKK Lubuk Ruso
- Preparation of development plan : PDAM & Prov. Satker - Flow chart of planning : PDAM-Bupati-Prov. Satker-DG Cipta Karya
- Criteria of Selection : no water supply system, shortage water area and low income population
8. Proposal to Central Government
- Preparation of proposal : 2006
- Components of proposal
- D/D and project outlin : Letter, sketch and rough Water source : No
- Land acquisition : Belonged to Local Gov. (ex-house for teacher) Local budget (APBD) : connections (Rp. 125 million)
- Management Agreement : - RPUM, development plan : No, just provided for 2010-2014
- Preparation period : 2006

9. - Number of proposals sent to Central Government per year : Before 10-15, currently based on RPIJM
- Percentage of approvement by Central government : 50%

Province : South Sumatra

1. Established Year : 2005
2. Number of staff : 49
- Categories Management : 4 Administrative : 38 Engineer : 7  
Technical : - Others : -
- Educations University : 21 High school : 28 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :
- Satker in year 2010 is regulated with Ministry of Public Work decree No. 47/KPTS/2010
- Generally, Satker has scope of work :
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
  - Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Sungai Pinang / Tanjung Kerang, Kabupaten Banyuasin in 2007
- Preparation of development plan : Dinas Cipta Karya Kabupaten - Flow chart : see Fig.1  
of planning
- Criteria of Selection : No water supply system and water shortage area
8. Proposal to Central Government
- Preparation of proposal : Dinas Cipta Karya Kabupaten
- Components of proposal
- D/D and project outlin : Din C/K Kab Water source permission (SIPA) : -  
Kab. Budget Local budget
- Land acquisition : through (APBD) : Din C/K Kab
- Management Agreement : PDAM RPUM, development plan : Din C/K Kab
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK Gelumbang, S. Rokan, Kelekar, Kab. Muaraenim in 2008
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : No water supply system
8. Proposal to Central Government
- Preparation of proposal : by PDAM then the proposal will be signed by Bupati
- Components of proposal
- D/D and project outlin : PDAM Water source permission (SIPA) : -  
local budget is allocated
- Land acquisition : Kab. Budget through PDAM Local budget : to  
(APBD) : PDAM for urban water  
supply dev.  
PDAM for urban W/S
- Management Agreement : PDAM RPUM, development plan : and rural W/S under Din  
C/K Kab
- Preparation period : about one year (see F.8)

- 9 - Number of proposals sent to Central Government per year : 10 - 15 (in average)
- Percentage of approval by Central government : 50%

Province : Lampung

1. Established Year : in 2001 with the name of Pimpro and the name changed into " Satker" in  
 2. Number of staff : in 2007: total 31 satffs  
 - Categories Management : 2 Administrative : 16 Engineer : 3  
 Technical : 8 Others : 2  
 - Educations University : 8 High school : 21 Junior high school : 2  
 Elementary high school : -  
 3. Organization chart : -  
 4. Regulation of Satuan Kerja, Scope of Work : Decree of Head of Water Supply Satker  
 5. List of PDAM/UPTD under Work Unit : -  
 6. Budget of Satuan Kerja : No data  
 7. Selection procedure of SPAM IKK Way Lima

- Preparation of development plan : PDAM - Flow chart of planning : PDAM- Prov. Satker- DG Cipta Karya

- Criteria of Selection : Water shortage area and low income population

8. Proposal to Central Government

- Preparation of proposal : By PDAM  
 - Components of proposal

D/D and project outlin : Letter, rough estimation and sketch Water source permission : No (SIPA)

Land acquisition : By Local Gov. Local budget (APBD) : around 12 km and 500 HC Distribution pipe for (Total Rp. 2,455,520,000)

Management Agreement : - RPUM, development plan : Yes  
 - Preparation period : 2004

9. - Number of proposals sent to Central Government per year : Before 20-23, currently based on RPIJM  
 - Percentage of approvemnt by Central government : 6-8 proposals/year

Province : Bengkulu

1. Established Year :  
2. Number of staff :  
- Categories Management : 1 Administrative : 7 Engineer : 8  
Technical : 11 Others : 10  
- Educations University : 23 High school : 14 Junior high school : -  
Elementary high school : -  
3. Organization chart : -  
4. Regulation of Satuan Kerja, Scope of Work : -  
5. List of PDAM/UPTD under Work Unit : NA: Not Applied  
6. Budget of Satuan Kerja : APBN: Salary & Operation Cost

7. Selection procedure of SPAM IKK Kota Padang  
- Preparation of development plan : Satker IKK Pusat - Flow chart of planning : IKK Satker Pusat  
- Criteria of Selection : No water supply system, Shortage of water, Population density  
8. Proposal to Central Government  
- Preparation of proposal : PDAM & Dinas PU under Province Satker review  
- Components of proposal  
D/D and project outlin : PDAM Water source permission (SIPA) : -  
Land acquisition : PDAM using Pemda budget (APBD) : Dinas C/K Kab  
Management Agreement : PDAM RPUM, development plan : Dinas C/K Kab  
- Preparation period : 8 months for RPIJM

7. Selection procedure of SPAM IKK Selupu Rejang & Curup Timur  
- Preparation of development plan : PDAM - Flow chart of planning : PDAM Satker Prov  
- Criteria of Selection : improve existing system due to existing spring water decreasing  
8. Proposal to Central Government  
- Preparation of proposal : PDAM & Dinas PU under Province Satker review  
- Components of proposal  
D/D and project outlin : PDAM + Satker Prov Water source permission : - (SIPA)  
Land acquisition : PDAM using Pemda budget Local budget (APBD) : Dinas C/K Kab  
Management Agreement : PDAM RPUM, development plan : Dinas C/K Kab  
- Preparation period : 8 months for RPIJM

9. - Number of proposals sent to Central Government per year : 7-10 proposals  
- Percentage of approval by Central government : 50%

Province : Banten

1. Established Year	: 2007 for the name of Satker and in 2000 under the name of Pimpro		
2. Number of staff	17		
- Categories	Management : 1 (KaSatker)	Administrative : 5	Engineer : 5
	Technical : 2	Others : -	Finance : 4
- Educations	University : 10	High school : 8	Junior high school : -
	Elementary high school : -		
3. Organization chart	: -		
4. Regulation of Satuan Kerja, Scope of Work	1. Planning the SPAM IKK Program : either rural or urban water supply in Banten Province		
	2. Implementing the SPAM IKK Program in Banten Province based on the planned program		
5. List of PDAM/UPTD under Work Unit	: No data		
6. Budget of Satuan Kerja	: No data		
7. Selection procedure of SPAM IKK			
- Preparation of development plan	: PDAM	- Flow chart of planning:	PDAM- Prov.Satker- Central Satker
- Criteria of Selection	: No water supply system, water shortage area and low income society		
8. Proposal to Central Government			
- Preparation of proposal	: PDAM & Provincial Satker		
- Components of proposal	Letter from Bupati		
D/D and project outline	By Consultant : selected by Central Satker	Water source permission (SIPA)	: Yes, have been proposed, but still in Dinas pengairan
Land acquisition	: Procured by PDAM, but budget from Local Government	Local budget (APBD)	: For Procuring the land and capital for house connection
Management Agreement	: -	RPUM, development plan	: No, still under preparation
- Preparation period	: 2007		
9. - Number of proposals sent to Central Government per year	: ± 15 proposals		
- Percentage of approval by Central government	: 50-60%		



Province : West Java

1. Established Year : 2005
2. Number of staff
- |                         |                        |                |             |          |                    |     |
|-------------------------|------------------------|----------------|-------------|----------|--------------------|-----|
| - Categories Management | : 1                    | Administrative | : 7         | Engineer | : 6                |     |
|                         | Technical              | : 6            | Others      | : 7      |                    |     |
| - Educations            | University             | : 7            | High school | : 15     | Junior high school | : 4 |
|                         | Elementary high school | : -            |             |          |                    |     |
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work : NA: Not Applied
5. List of PDAM/UPTD under Work Unit : Attached
6. Budget of Satuan Kerja : APBN: Salary & Operation Cost

7. Selection procedure of SPAM IKK Garawangi and Luragung
- |                                   |   |                          |                               |
|-----------------------------------|---|--------------------------|-------------------------------|
| - Preparation of development plan | : PDAM                                      | - Flow chart of planning | : Satker<br>PDAM-<br>Province |
| - Criteria of Selection           | : No water supply system, Shortage of water |                          |                               |
8. Proposal to Central Government
- |                           |                        |                         |                  |
|---------------------------|------------------------|-------------------------|------------------|
| - Preparation of proposal | : PDAM & Dinas C/K Kab |                         |                  |
| - Components of proposal  |                        |                         |                  |
| D/D and project outlin    | : PDAM & Dinas C/K Kab | Water source permission | : PDAM<br>(SIPA) |
| Land acquisition          | : -                    | Local budget (APBD)     | : Dinas C/K Kab  |
| Management Agreement      | : PDAM                 | RPUM, development plan  | : Dinas C/K Kab  |
| - Preparation period      | : 8 months for RPIJM   |                         |                  |

7. Selection procedure of SPAM IKK Ciwaringin
- |                                   |   |                          |                               |
|-----------------------------------|---|--------------------------|-------------------------------|
| - Preparation of development plan | : PDAM                                      | - Flow chart of planning | : Satker<br>PDAM-<br>Province |
| - Criteria of Selection           | : No water supply system, Shortage of water |                          |                               |
8. Proposal to Central Government
- |                           |                      |                         |                  |
|---------------------------|----------------------|-------------------------|------------------|
| - Preparation of proposal | : Satker Province    |                         |                  |
| - Components of proposal  |                      |                         |                  |
| D/D and project outlin    | : Satker Province    | Water source permission | : PDAM<br>(SIPA) |
| Land acquisition          | : Dinas C/K Kab      | Local budget (APBD)     | : Dinas C/K Kab  |
| Management Agreement      | : PDAM               | RPUM, development plan  | : Dinas C/K Kab  |
| - Preparation period      | : 8 months for RPIJM |                         |                  |

7. Selection procedure of SPAM IKK Palasari
- |                                   |   |                          |                                |
|-----------------------------------|---|--------------------------|--------------------------------|
| - Preparation of development plan | : PDAM                                      | - Flow chart of planning | : Satker<br>PDAM -<br>Province |
| - Criteria of Selection           | : System extension due to population growth |                          |                                |
8. Proposal to Central Government
- |                           |                      |                                |                 |
|---------------------------|----------------------|--------------------------------|-----------------|
| - Preparation of proposal | : PDAM               |                                |                 |
| - Components of proposal  |                      |                                |                 |
| D/D and project outlin    | : PDAM               | Water source permission (SIPA) | : PDAM          |
| Land acquisition          | : PDAM               | Local budget (APBD)            | : Dinas C/K Kab |
| Management Agreement      | : PDAM               | RPUM, development plan         | : Dinas C/K Kab |
| - Preparation period      | : 8 months for RPIJM |                                |                 |

9. - Number of proposals sent to Central Government per year	: 3 - 5 proposals
- Percentage of approval by Central government	: 60 - 70%

Province : Central Java

1. Established Year : 2005
2. Number of staff : 55
- Categories Management : 2 Administrative : 29 Engineer : 15  
Technical : 9 Others : -
- Educations University : 25 High school : 30 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :
- Satker in year 2010 is regulated with Ministry of Public Work decree No. \_\_\_/KPTS/M/2010
- Generally, Satker has scope of work :
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
  - Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK : Toroh, Kabupaten Grobogan in 2005
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : No water supply system and water shortage area
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outlin : Satker Province
- Water source permission : -  
(SIPA)
- Land acquisition : PDAM using Kab.' Budget
- Local budget : Din C/K Kab  
(APBD)
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK : Boja, Kabupaten Kendal in 2005
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : No water supply system and water shortage area
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outlin : Satker Province
- Water source permission : PDAM  
(SIPA)
- Land acquisition : PDAM using Kab.' Budget
- Local budget : Din C/K Kab  
(APBD)
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK	Sawit, Kabupaten Boyolali in 2005
- Preparation of development plan	: PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection	: No water supply system
8. Proposal to Central Government	
- Preparation of proposal	: Satker Province
- Components of proposal	
D/D and project outline	: Satker Province
	Water source permission : - (SIPA)
Land acquisition	: PDAM using Kab.' Budget
	Local budget (APBD) : Din C/K Kab
Management Agreement	: PDAM RPUM, development plan : -
- Preparation period	: about one year (see F.8)

7. Selection procedure of SPAM IKK	Gubug, Kabupaten Grobogan in 2007
- Preparation of development plan	: PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection	: No water supply system
8. Proposal to Central Government	
- Preparation of proposal	: Satker Province
- Components of proposal	
D/D and project outline	: PDAM
	Water source permission (SIPA) : -
Land acquisition	: PDAM using Kab.' Budget
	Local budget (APBD) : Din C/K Kab
Management Agreement	: PDAM RPUM, development plan : -
- Preparation period	: about one year

7. Selection procedure of SPAM IKK	Sulang, Kabupaten Rembang in 2007
- Preparation of development plan	: PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection	: No water supply system and water shortage area
8. Proposal to Central Government	
- Preparation of proposal	: PDAM, the proposal was signed by Bupati
- Components of proposal	
D/D and project outline	: Satker Province
	Water source permission : - (SIPA)
Land acquisition	: PDAM using Kab.' Budget
	Local budget (APBD) : Din C/K Kab
Management Agreement	: PDAM RPUM, development plan : -
- Preparation period	: about one year (see F.8)

9 - Number of proposals sent to Central Government per year	: 10 - 15 (in average)
- Percentage of approval by Central government	: 50%

Province : East Java

1. Established Year : 2005
2. Number of staff : 35
- Categories Management : 4 Administrative : 19 Engineer : 12  
Technical : - Others : -
- Educations University : 23 High school : 12 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :  
Satker in year 2010 is regulated with Ministry of Public Work decree No. \_\_\_/KPTS/M/2010  
Generally, Satker has scope of work :  
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views  
- Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan  
- Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.  
- Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over  
- Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja :  
Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Jenangan
- Preparation of development plan : PDAM & Prov. Satker - Flow chart of planning : PDAM- Prov. Satker-DG Cipta Karya
- Criteria of Selection : shortage water area
8. Proposal to Central Government
- Preparation of proposal : PDAM & Prov. Satker
- Components of proposal
- D/D and project outlin : D/D was done by Prov. Satker & PDAM; Project outline: deep well and distribution pipe Ø6" of around 2 km and 1 pipe bridge Water source permission : No (SIPA)
- Land acquisition : Procured by PDAM Local budget (APBD) : -
- Management Agreement : - RPIJM, development plan : No, RPIJM is prepared for 2010-2014
- Preparation period : 2006

7. Selection procedure of SPAM IKK		Gemarang	
- Preparation of development plan	: By PDAM & Prov. Satker	- Flow chart of planning	PDAM- Prov. Satker- DG Cipta Karya
- Criteria of Selection	: No water supply system (just water supply managed by community), shortage water area, low income population		
8. Proposal to Central Government			
- Preparation of proposal	: By PDAM & Prov. Satker		
- Components of proposal			
D/D and project outline	No D/D, just simple design prepared by Prov. Satker. Project was construction of deep well and distribution pipe.	Water source permission : No (SIPA)	
Land acquisition		Local budget (APBD)	: -
Management Agreement	: -	RPIJM, development plan	: No, RPIJM just being prepared for 2010-2014
- Preparation period	: 2005		

7. Selection procedure of SPAM IKK		Kepung	
- Preparation of development plan	: Dinas Kabupaten, while D/D was done by consultant	- Flow chart of planning	PDAM- Prov. Satker- Central Satker
- Criteria of Selection	:		
8. Proposal to Central Government			
- Preparation of proposal	: By PDAM & Prov. Satker		
- Components of proposal			
D/D and project outline	D/D for intake, WTP and reservoir by consultant selected by Central Satker	Water source permission : No (SIPA)	
Land acquisition	The land for WTP and reservoir was belonged to Local Government (previously for Elementary School); while for intake pump house was hired from Dinas Pengairan Kabupaten	Local budget (APBD)	: Budget of APBD I: to construct the distribution pipe to the some areas downstream the WTP; APBD II is also allocated to construct the distribution pipe in Dusun Kebon Raja and Dusun Tegal Rejo
Management Agreement	: -	RPIJM, development plan	: No, RPIJM just being prepared for 2010-2014
- Preparation period	: 2005		

9. - Number of proposals sent to Central Government per year	: 12 - 15 (in average)
- Percentage of approval by Central government	: 50%

Province : DI Yogyakarta

1. Established Year	: 1985 (But the name of SATKER started from 2005)
2. Number of staff	: 49
- Categories Management	: 3 Administrative : 31 Engineer : 9
Technical	: 6 Others :
- Educations University	: 23 High school : 22 Junior high school : 4
Elementary high school	:
3. Organization chart	: -
4. Regulation of Satuan Kerja, Scope of Work	: Conducting water supply development in order to fulfill drinking water demand that affordable by poor and low income. And also to improve health, clean, orderly, and organizely environment.
5. List of PDAM/UPTD under Work Unit	: -
6. Budget of Satuan Kerja	: No data

7. Selection procedure of SPAM IKK	Gamping
- Preparation of development plan	: PDAM & Prov. Satker - Flow chart of PDAM (together with Dinas PU Kabupaten) ---> Province Satker --> Central Satker
- Criteria of Selection	: water shortage area and lower income community
8. Proposal to Central Government	
- Preparation of proposal	: PDAM and Provincial Satker
- Components of proposal	: Letter from Bupati (Head of District)
D/D and project outlin	: D/D by Consultant selected by Central Satker Water source permission (SIPA) : No, but PDAM heard that the proposal of SIPA has been submitted to River Basin Management Center (Balai Besar Wilayah Sungai), but no follow up to present.
Land acquisition	: by PDAM Local budget (APBD) : Connected to the existing system
Management Agreement	: - RPIJM, development plan : No, RPIJM just being prepared by 2009-2013
- Preparation period	: 2008

7. Selection procedure of SPAM IKK		Selopamiro	
- Preparation of development plan	: PDAM & Prov. Satker	- Flow chart of planning:	PDAM- Prov.atker- Central Satker
- Criteria of Selection	: no water supply system to support SPN (National Police school) and water shortage area		
8. Proposal to Central Government			
- Preparation of proposal	: By PDAM & Prov. Satker		
- Components of proposal			
D/D and project outlin	: D/D by Consultant selected by Central Satker	Water source permission	: No
Land acquisition	: Procured by Local Gov.	Local budget (APBD)	: Distribution pipes of 1.5 km and concrete treatment plant
Management Agreement	: -	RPUM, development plan	: No, RPIJM is just for 2009-2013
- Preparation period	: 2007		

9. - Number of proposals sent to Central Government per year	: Previously usually for rural water supply, for SPAM IKK rarely, currently based on RPIJM
- Percentage of approvemnt by Central Government	: 2009: 5 SPAM IKK; 2010: 2 SPAM IKK



Province : West Kalimantan

1. Established Year : 2005
2. Number of staff : 26 by FY 2010 (6 of them are non-permanent staffs)
- Categories Management : 2 Administrative : 15 Engineer : 2  
 Technical : 5 Others : 3
- Educations University : 14 High school : 7 Junior high school : 5  
 Elementary high school : -
3. Organization chart : See the sheet of "organization of satker"
4. Regulation of Satuan Kerja, Scope of Work : Decree of Head of Dinas Pu of West Kalimantan Province No. 060.061.1/KPTS/DPU-CK/03. Scope of work: implementing preparation of material for coordination, synchronization and proposing the program and budgeting and implementing the technical supervision and monitoring on the SPAM implementation based on the operational policy
5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja : -

7. Selection procedure of SPAM IKK Jungkat
- Preparation of development plan : By PDAM & Prov. Satker - Flow chart of planning : PDAM- Prov. Satker-Central satker
- Criteria of Selection : water shortage area and low income population
8. Proposal to Central Government
- Preparation of proposal : By PDAM
- Components of proposal
- D/D and project outlin : Design of package of WTP was done by Central Satker Water source permission : No
- Land acquisition : Land was granted by community Local budget (APBD) : For distribution pipe
- Management Agreement : - RPIJM, development plan : Not attached at the time of proposal was submitted, RPIJM just newly prepared
- Preparation period : 2006

7. Selection procedure of SPAM IKK		Sei Bulan	
- Preparation of development plan	: By PDAM & Prov. Satker	- Flow chart of planning	PDAM- Prov. Satker- Central Satker
- Criteria of Selection	: water shortage area and low income population		
8. Proposal to Central Government			
- Preparation of proposal :			
- Components of proposal			
D/D and project outlin	Design for package of WTP : was done by consultant selected by Central Satker	Water source permission : No (SIPA)	
Land acquisition	Land procured by Local Government	Local budget (APBD)	Not yet, distribution pipe : just shall be constructed in FY 2010
Management Agreement	: -	RPIJM, development plan	Not attached at the time of proposal was submitted, RPIJM just newly prepared
- Preparation period	: 2006		

9. - Number of proposals sent to Central Government per year	:
- Percentage of approval by Central government	:

Province : East Kalimantan

1. Established Year : in 2005
2. Number of staff : 29 staffs (50% Central satker Staffs and 50% Provincial satker staffs)
- Categories Management : 2 Administrative : 16 Engineer : 7  
 Technical : 1 Others : 3
- Educations University : 13 High school : 13 Junior high school : 3  
 Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work : Planning & implementing the water supply development programs
5. List of PDAM/UPTD under Work Unit : -
6. Budget of Satuan Kerja : No data

7. Selection procedure of SPAM IKK Sepaku
- Preparation of development plan : PDAM & Prov. Satker - Flow chart of planning : PDAM- Prov. Satker-DG Cipta Karya
- Criteria of Selection : No water supply system and water shortage area

8. Proposal to Central Government
- Preparation of proposal : By PDAM & Prov. Satker
- Components of proposal
- D/D and project outlin : No D/D, just letter Water source permission (SIPA) : No
- Land acquisition : Belonged to PDAM, in the existing WTP area Local budget (APBD) : For house connections through PDAM budget
- Management Agreement : - RPIJM, development plan : No, RPIJM is just provided for 2009-2013
- Preparation period : 2004

7. Selection procedure of SPAM IKK Loa Janan
- Preparation of development plan : PDAM & Prov. Satker - Flow chart of planning : PDAM- Prov. Satker-DG Cipta Karya
- Criteria of Selection : No water supply system and water shortage area

8. Proposal to Central Government
- Preparation of proposal : By PDAM & Prov. Satker
- Components of proposal
- D/D and project outlin : No D/D, just letter Water source permission (SIPA) : No
- Land acquisition : Procured by Local Government Local budget (APBD) : Yes for distribution pipe, house connections and access road to WTP
- Management Agreement : - RPIJM, development plan : No, RPIJM is just provided for 2010-2014
- Preparation period : 2006

9. - Number of proposals sent to Central Government per year	: Before 30-40, currently based on RPIJM
- Percentage of approval by Central government	: 50%

Province : South Kalimantan

1. Established Year : 2005
2. Number of staff : 16
- Categories Management : 2 Administrative : 11 Engineer : 2  
Technical : 1 Others : -
- Educations University : 6 High school : 10 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :
- Satker in year 2010 is regulated with Ministry of Public Work decree No. 88/KPTS/M/2010
- Generally, Satker has scope of work
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
  - Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Kertak Hanyar, Kabupaten Banjar in 2005
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1  
improve services coverage area for existing water supply
- Criteria of Selection : system due to new Kabupaten
8. Proposal to Central Government
- Preparation of proposal : PDAM, the proposal was signed by Bupati
- Components of proposal
- D/D and project outlin : PDAM Water source permission (SIPA) : -
- Land acquisition : PDAM using Kab.' Budget Local budget (APBD) : -
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK Binuang, Kab. Tapin in 2005
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1  
Water shortage area and support existing system due to
- Criteria of Selection : population growth
8. Proposal to Central Government
- Preparation of proposal : PDAM, the proposal was signed by Bupati
- Components of proposal
- D/D and project outlin : PDAM Water source permission (SIPA) : -
- Land acquisition : PDAM using Kab.' Budget Local budget (APBD) : -
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

- 9 - Number of proposals sent to Central Government per year : 12 (in average)
- Percentage of approval by Central government : 50%



Province : Central Sulawesi

1. Established Year : 2005
2. Number of staff : 49
- Categories Management : 8 Administrative : 29 Engineer : 6  
Technical : 6 Others : -
- Educations University : 16 High school : 33 Junior high school : -  
Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :  
Satker in year 2010 is regulated with Ministry of Public Work Decree No. 79/KP/TS/VI/2010
- Generally, Satker has scope of work
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
  - Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Binangga, Kabupaten Donggala in 2005
- Preparation of development plan : Satker Province - Flow chart of planning : see Fig.1
- Criteria of Selection : To improve existing water supply system built in 2004
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outlin : Satker Province Water source permission : - (SIPA)
- Land acquisition : PDAM using Kab.' Budget Local budget (APBD) : Din C/K Kab
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK Palu (Kawatuna), City Palu in 2006
- Preparation of development plan : PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection : No water supply system, water shortage area and population growth
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outlin : Satker Province Water source permission : - (SIPA)
- Land acquisition : PDAM using Kab.' Budget Local budget (APBD) : Din C/K Kab
- Management Agreement : PDAM RPUM, development plan : -
- Preparation period : about one year (see F.8)

7. Selection procedure of SPAM IKK	Sabang, Kabupaten Donggala in 2008
- Preparation of development plan	: PDAM - Flow chart of planning : see Fig.1
- Criteria of Selection	: No water supply system and water shortage area
8. Proposal to Central Government	
- Preparation of proposal	: Satker Province
- Components of proposal	
D/D and project outlin	: Satker Pusat Water source permission (SIPA) : -
Land acquisition	: PDAM using Kab.' Budget Local budget (APBD) : Din C/K Kab
Management Agreement	: PDAM RPUM, development plan : Din C/K Kab
- Preparation period	: about one year (see F.8)

9 - Number of proposals sent to Central Government per year	: 10 (in average)
- Percentage of approvement by Central government	: 50%



Province : South Sulawesi

1. Established Year : 2006

2. Number of staff : 66

- Categories Management : 3 Administrative : 42 Engineer : 5

Technical : 8 Others : 8

- Educations University : 28 High school : 38 Junior high school : -

Elementary high school : -

3. Organization chart : -

4. Regulation of Satuan Kerja, Scope of Work :

Satker in year 2010 is regulated with Ministry of Public Work decree No. 01/KPTS/PKP-AM-SS/2010

Generally, Satker has scope of work

- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views

- Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan

- Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.

- Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over

- Conduct coordination with related institutions

5. List of PDAM/UPTD under Work Unit : -

6. Budget of Satuan Kerja :

Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing of drinking water supply, monitoring and evaluation program and projects in the year.

7. Selection procedure of SPAM IKK Patallasang, Kabupaten Takalar in 2006

- Preparation of development plan : Satker Province coordinating with PDAM to identify which IKKs do not have water supply system, availability of water resources, increasing water demand due to population growth

- Flow chart of planning : Bupati-Satker Province  
Ministry of Public Work

- Criteria of Selection : To improve existing water supply due to population growth because of Patallasang is IKK which supports Kabupaten Takalar

8. Proposal to Central Government

- Preparation of proposal : Satker Province

- Components of proposal

D/D and project outlin : Dinas C/K Kab. Water source permission (SIPA) : -

Land acquisition : PDAM Local budget (APBD) : -

Management Agreement : PDAM RPUM, development plan : Dinas C/K

- Preparation period : about one year

7. Selection procedure of SPAM IKK	Patallassang, Kabupaten Gowa in 2008	
- Preparation of development plan	Satker Province coordinating with PDAM to identify which IKKs do not have water supply system, availability of water resources, increasing water demand due to population growth	Bupati-Satker Province Ministry of Public Work
- Criteria of Selection	: Water shortage area	
8. Proposal to Central Government		
- Preparation of proposal	: Satker Province	
- Components of proposal		
D/D and project outline	: Dinas C/K Kab. Water source permission (SIPA) : -	
Land acquisition	: PDAM Local budget (APBD) : -	
Management Agreement	: PDAM RPUM, development plan : Dinas C/K	
- Preparation period	: about one year	

7. Selection procedure of SPAM IKK	Parapa, Kabupaten Jenepono in 2008	
- Preparation of development plan	Satker Province coordinating with PDAM to identify which IKKs do not have water supply system, availability of water resources, increasing water demand due to population growth	Bupati-Satker Province Ministry of Public Work
- Criteria of Selection	: To improve existing water supply due to population growth	
8. Proposal to Central Government		
- Preparation of proposal	: Satker Province	
- Components of proposal		
D/D and project outline	: Dinas C/K Kab. Water source permission (SIPA) : -	
Land acquisition	: PDAM Local budget (APBD) : -	
Management Agreement	: PDAM RPUM, development plan : Dinas C/K	
- Preparation period	: about one year	

7. Selection procedure of SPAM IKK	Galesong Selatan, Kabupaten Takalar in 2008	
- Preparation of development plan	Satker Province coordinating with PDAM to identify which IKKs do not have water supply system, availability of water resources, increasing water demand due to population growth	Bupati-Satker Province Ministry of Public Work
- Criteria of Selection	: Water shortage area	
8. Proposal to Central Government		
- Preparation of proposal	: Satker Province	
- Components of proposal		
D/D and project outline	: Dinas C/K Kab. Water source permission (SIPA) : -	
Land acquisition	: PDAM Local budget (APBD) : -	
Management Agreement	: PDAM RPUM, development plan : Dinas C/K	
- Preparation period	: about one year	

9 - Number of proposals sent to Central Government per year	: 7 (in average)
- Percentage of approval by Central government	: 50%

Province : Southeast Sulawesi

1. Established Year : 2005
2. Number of staff : 46
- Categories Management : 1 Administrative : 29 Engineer : 7  
Technical : 9 Others : -
- Educations University : 19 High school : 24 Junior high school : -  
Elementary high school : 3
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Work :
- Satker in year 2010 is regulated with Ministry of Public Work decree No. 52/KPTS/2010
- Generally, Satker has scope of work :
- to implement of activities plan / programs which has decided in DIPA in certainty year under Satker Province management in physical and financial progresses point of views
  - Reporting the implementation activities / programs to Ministry of Public Work (MOPW) in relation to achieve objectives of MOPW' strategic plan
  - Prepare yearly activities plan proposal that is part of working plan and ministerial budget for next year.
  - Hand over result of goods/services procurement and other assets which are under Satker Province responsibility to ministry of MOPW through official report of handling over
  - Conduct coordination with related institutions
5. List of PDAM/UPTD under Work Unit : No available
6. Budget of Satuan Kerja :
- Budget of Satker comes from two sources: 1) APBD I (Province), is for regional staffs remuneration who work under province and 2) APBN, is for staff remuneration who work out of province management, satker' yearly activities/programs such as establishing
7. Selection procedure of SPAM IKK Latambaga, Kabupaten Kolaka in 2008
- Preparation of development plan : PDAM - Flow chart of planning : see F.1
- Criteria of Selection : water shortage area and to support existing system
8. Proposal to Central Government
- Preparation of proposal : Satker Province
- Components of proposal
- D/D and project outline : PDAM Water source permission (SIPA) : -
- Land acquisition : - Local budget (APBD) : Din C/K Kab
- Management Agreement : PDAM RPUM, development plan : Din C/K Kab
- Preparation period : about one year (see F.8)
- 9 - Number of proposals sent to Central Government per year : 9 - 12 (in average)
- Percentage of approval by Central government : 50%

Province : North Sulawesi

1. Established Year	: 2006
2. Number of staff	: 43 in FY 2010
- Categories	Management : 2      Administrative : 18      Engineer : 10
	Technical : 10      Others : 3
- Educations	University : 21      High school : 22      Junior high school : 3
	Elementary high school : -
3. Organization chart	: -

4. Regulation of Satuan Kerja, Scope of Work : Conducting activities of water supply development based on Work and Budget Planning decided in DIPA (List of Budget Implementation)

5. List of PDAM/UPTD under Work Unit : Only 1 UPTD (Now, PDAM is not under Satker organization)

6. Budget of Satuan Kerja : No data

7. Selection procedure of SPAM IKK : IKK Air Madidi

- Preparation of development plan : PDAM and Dinas PU      '- Flow chart of planning : PDAM (and Dinas PU)-Prov.Satker-Central Satker

- Criteria of Selection : No water supply system, water shortage area and new kabupaten

8. Proposal to Central Government

- Preparation of proposal : PDAM & Prov. Satker

- Components of proposal : Letter from Bupati

D/D and project outline : D/D for WTP by Consultant selected by Central Satker      Water source permission (SIPA) : No, but has been instructed by Provincial Satker to get SIPA starting from this year

Land acquisition : Procured by PDAM, but budget from Local Government      Local budget (APBD) : None, since there is an existing system

Management Agreement : -      RPIJM, development plan : Not yet available. RPIJM exists in 2009-2013

- Preparation period : 2005

7. Selection procedure of SPAM IKK		Amurang	
- Preparation of development plan		: PDAM & Prov. Satker	- Flow chart of planning :
- Criteria of Selection		: No water supply system, water shortage area and new kabupaten	
8. Proposal to Central Government			
- Preparation of proposal		: PDAM & Prov. Satker	
- Components of proposal			
D/D and project outline	D/D by Consultant selected by Central Satker	Water source permission (SIPA)	: No, but has been instructed by Provincial Satker to get SIPA starting from this year
Land acquisition	Procured by Local Gov.	Local budget (APBD)	: For the distribution pipe and 100 H (Rp. 300 million)
Management Agreement	-	RPIJM, development plan	: No, since the RPIJM is prepared in 2009-2013
- Preparation period		2006	

9. - Number of proposals sent to Central Government per year		: Currently based on RPIJM
- Percentage of approval by Central government		: Not same every year

Province : Gorontalo

1. Established Year : 2005
2. Number of staff
- Categories Management : 1 Administrative : 1 Engineer : 5
  - Technical : - Others : -
  - Educations University : 7 High school : - Junior high school : -
  - Elementary high school : -
3. Organization chart : -
4. Regulation of Satuan Kerja, Scope of Wc : Ref to Keputusan Kepala Satker Pengembangan Kinerja  
Pengelolaan Air Minum Gorontalo  
(HK.01.18/PKPAMG/307/2010)
5. List of PDAM/UPTD under Work Unit :
6. Budget of Satuan Kerja : APBN: Salary & Operation Cost, Other source: World  
Bank for PAMSIMAS Project

7. Selection procedure of SPAM IKK Suwawa
- Preparation of development plan : Din C/K Kab - Flow chart of planning : Satker Province
  - Criteria of Selection : New area due to Kabupaten separation from Kabupaten  
Gorontalo becomes Kab Bone Bolango
8. Proposal to Central Government
- Preparation of proposal : Satker Province
  - Components of proposal
  - D/D and project outlin : Din C/K Kab Water source permission (SIPA) : -
  - Land acquisition : Din C/K Kab Local budget (APBD) : Din C/K Kab
  - Management Agreement : BPAM RPUM, development plan : Din C/K Kab
  - Preparation period : 8 months for RPIJM

7. Selection procedure of SPAM IKK Kwandang
- Preparation of development plan : Din C/K Kab - Flow chart of planning : Din C/K Kab -  
Satker Province
  - Criteria of Selection : improve existing system because of population growth
8. Proposal to Central Government
- Preparation of proposal : Satker Province
  - Components of proposal
  - D/D and project outlin : Satker Province Water source permission (SIPA) : -
  - Land acquisition : Dinas C/K Kab. Local budget (APBD) : Din C/K Kab
  - Management Agreement : BLU RPUM, development plan : Din C/K Kab
  - Preparation period : 8 months for RPIJM

9. - Number of proposals sent to Central Government per year : 5 proposals
- Percentage of approval by Central government : 50%

**Flowchart - 1**  
**General Planning Chart for SPAM IKK Development**

Locations	Schedule	Activities	Remarks
Local Government (Kabupaten / City) Level	April	Kecamatan Development Plan Discussion (Musrembang Kec.)	Kecamatan / PDAM proposes the SPAM IKK plan to Bupati (Mayor)
	June -Sept	Kabupaten Development Plan Discussion (Musrembang Kab.)	The proposed the SPAM IKK plan is brought to Kabupaten discussion to get agreement for Kab portion budget to SPAM IKK development
	Sept -Oct	Province Development Plan Discussion (Musrembang Prov.)	In case of the proposed SPAM IKK is planned to use some portion of APBD I (Province) budget portion, the plan is brought to province level discussion
	Jan. - Feb.	The SPAM IKK Development Plan is proposed to Directorate General of Cipta Karya Jakarta	After discussion in Kab/Prov., the plan is coordinated with Satker province for checking the fulfiness of requirements such as DED, local government commitment for distribution pipeline, then the proposal will be sent kabupaten to DGCK directly or through Satker Province
Central Level	March - Apr.	Regional consultation (ConReg) conducted by ministry of Public Work	The regional consultation is addressed to all programs / development plans under ministry of public work that are planned to be carried out for next year. For the proposed SPAM IKK development plan, directorate of water supply confirms to Satker Province about the readiness of location and other requirements
	June-July	National Development Plan Discussion (Musrembang Nasional)	Minister of Public Work bring result of Conreg to Musrembang Nasional conducted by Bappenas
	August	Result of selected SPAM IKK development plan and its budget allocation plan (Pagu)	After discussion with DPR and Bappenas, Ministry of Finance through Directorate General of Budget decides budget allocation (Pagu) for SPAM IKK development
	Sept. - Oct.	The selected SPAM IKK development plan budget	Budget discussion in this stage, is to know the working plan budget (RKAKL = Rencana Kerja Anggaran Kementrian & Lembaga)
	December	Determination of DIPA (Daftar Isian Penggunaan Anggaran)	
	Jan. - Feb.	Decession letter for Satker SPAM IKK development management	Decession letter of Satker appointment whether Satker Pusat or Province who will manage the SPAM IKK development. The decission is from Dir.gen Cipta Karya
	February	SPAM IKK development tender	Implentation of tender is carried out at pusat or province based on SPAM IKK budget allocated whether at Pusat or province
May - Nov	Implementation of SPAM IKK development		

## APPENDIX 2 BASIC DATA OF 50 SPAM IKK

<i>A - 1</i>	<i>Sumbul</i>	<i>B - 22</i>	<i>Gemarang</i>
<i>A - 2</i>	<i>Kisaran</i>	<i>B - 23</i>	<i>Burneh</i>
<i>B - 1</i>	<i>Nagari Kota Sani</i>	<i>B - 24</i>	<i>Kepung</i>
<i>B - 2</i>	<i>Sumpahan</i>	<i>B - 25</i>	<i>Selopamioro</i>
<i>B - 5</i>	<i>Tandun</i>	<i>B - 26</i>	<i>Gamping</i>
<i>B - 6</i>	<i>Inuman</i>	<i>A - 5</i>	<i>Jungkat</i>
<i>B - 7</i>	<i>Candi Muaro</i>	<i>A - 6</i>	<i>Sei Bulan</i>
<i>B - 8</i>	<i>Lubuk Ruso</i>	<i>B - 27</i>	<i>Sepaku</i>
<i>B - 3</i>	<i>Sungai Pinang</i>	<i>B - 28</i>	<i>Loa Janan</i>
<i>B - 4</i>	<i>Gelumbang</i>	<i>B - 29</i>	<i>Kertak Hanyar</i>
<i>B - 9</i>	<i>Way Lima</i>	<i>B - 30</i>	<i>Binuang</i>
<i>B - 10</i>	<i>Kotapadang</i>	<i>B - 31</i>	<i>Kareng Pangi</i>
<i>B - 11</i>	<i>Selupu Rejang &amp; Curup Timur</i>	<i>B - 32</i>	<i>Tumbang Talakan</i>
<i>B - 12</i>	<i>Cikande</i>	<i>B - 33</i>	<i>Binanga</i>
<i>B - 13</i>	<i>Garawangi</i>	<i>B - 35</i>	<i>Sabang</i>
<i>B - 14</i>	<i>Luragung</i>	<i>B - 34</i>	<i>Palu</i>
<i>B - 15</i>	<i>Ciwaringin</i>	<i>A - 7</i>	<i>Pattallassang</i>
<i>B - 16</i>	<i>Palasari</i>	<i>B - 37</i>	<i>Galesong Selatan</i>
<i>A - 3</i>	<i>Toroh</i>	<i>A - 8</i>	<i>Pattallassang</i>
<i>B - 18</i>	<i>Gubug</i>	<i>B - 36</i>	<i>Parapa</i>
<i>A - 4</i>	<i>Boja</i>	<i>B - 38</i>	<i>Lakambaga</i>
<i>B - 17</i>	<i>Sawit</i>	<i>B - 39</i>	<i>Air Madidi</i>
<i>B - 19</i>	<i>Sulang</i>	<i>B - 40</i>	<i>Amurang</i>
<i>B - 20</i>	<i>Bancar</i>	<i>B - 41</i>	<i>Suwawa</i>
<i>B - 21</i>	<i>Jenangan</i>	<i>B - 42</i>	<i>Kwandang</i>



Technical Data of SPAM IKK

Province	North Sumatra	PDAM	Ashahan	SPAM IKK	Sumbul	2008
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<b>1.Population and Area</b>	A-1
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Total population	11,730 person	Total household	2,640 household
Service area population	9,970 person	Service area household	2,240 household
Population served	7,500 person	Household served	1,700 household
Coverage	75.2 %	Coverage	75.9 %
Area	km2		

**2.Design and construction organizations**

Design organizations		Construction organizations	
Intake, WTP		Intake, WTP	
Distribution		Distribution	

**3.Operational status of projects facilities**

Operation status	Not yet operation
Cause some or all of the running yet	Delay in coordination with outside agencies.
	[ Intake site is located within the National Forrest Conservation. The problem was aroused by claim reported from local NGO for construction of Inspection road of trancemission pipe ]

**4.Operational status** (The input is based on the existing water supply system of IKK Sumbul )

Hours of operation	24 hours/day	Connections (active only)	
Water produced	155,520 m3/year	Social	11
Water sold	6,168 m3/year	Commercial	9
Water sold	13 m3/connection/month	Public Hydrant	
Unaccounted for water	81,504 m3/year	Domestic	461
Unaccounted for water	53 %	Government	7
		Total	488 connections
		Industry	
		Special	
		-	

**5.Maintenance status**

Intake, WTP	
Working conditions	<i>Not yet operated</i>
Actual existence of repair	<i>Not yet operated</i>
Distributions	
Working conditions	<i>Not yet operated</i>
Actual existence of repair	<i>Not yet operated</i>

**6.Situation to take over maintenance agency (PDAM)**

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans		Drawings and Maintenance plans	
Education and training for maintenance		Education and training for maintenance	

Technical Data of SPAM IKK

Province		North Sumatra		PDAM		Ashahan		SPAM IKK		Sumbul		2008	
<b>1. Water Source</b>				Chemical for disinfection				Bleaching powder					
<b>1.1 Location</b>				Power source				Commercial grit					
Distance from core area (km)		18		Plant management staff									
<b>1.2 Water Source &amp; capacity</b>				Administration				4					
Type		Spring		Engineer				2					
Gravity / Pumped		Gravity		Operator				4					
Capacity (L/s)		10		Total				10					
<b>1.3 Water Intake Structure</b>				Operation shifts per day				Not yet operated					
<b>Weir</b>				<b>2.2 Plain sedimentation tank</b>									
Type of structure		concrete		Number of the tanks		Not Applied							
Type of screen		Bar screen (manuarl)		Total surface area		Not Applied							
Type of Grit chamber		-		Total tank volume		Not Applied							
Working condition		Fair		<b>2.3 Slow sand filter</b>									
<b>Spring Broncaptering</b>				Number of filters		Not Applied							
Type of structure		-		Total surface area		Not Applied							
Working condition		-		Filtration rate		Not Applied							
<b>Well</b>				<b>2.4 Coagulation facilities</b>									
Type		-		Mixing methods		Rapid mixing							
Diameter (mm)		-		Type of mixer		Hydraulic							
Depth(m)		-		Working condition		Fair							
Discharge rate(L/s)		-		<b>2.5 Water quality test equipments</b>									
SWL / PWL(m)		-		Jar tester		1							
Operation hours		-		Turbidity meter		1							
Type of pump		-		pH meter		1							
Working condition		-		<b>2.6 Rapid sand filter</b>									
<b>1.4 Water Quality Data</b>				Number of filters		2							
Annual Max Turbidity		Not data available		Total surface area (m2)		-							
Annual Ave Turbidity		Not data available		Filtration rate (m3/m2/day)		-							
Annual Max pH		Not data available		Backwashing type									
Annual Min pH		Not data available		Auxiliary backwash system									
Water quality analysis data				Type of valves and gates									
Available or not		Not		<b>2.7 Clear water reservoir</b>									
<b>2. Treatment Systems</b>				Number of reservoirs		1							
<b>2.1 Basic Information</b>				Total volume (m3)									
Design capacity (L/s)		10		Retention time									
Daily operation hours (hrs)		Not yet operated		<b>2.8 Distribution pump</b>									
Daily production (m3/day)		Not yet operated		Type and number		Centrifugal							
Type of water treatment		Rapid sand filter		Capacity (L/s)									
Type of coagulant being used		AS		Diameter (mm)									
				Head (m)									
				<b>2.9 Sludge management facilities</b>									
Back washed water regulation tank				Number of tank, Capacity (m3)		Not Applied							
Sludge regulating tank				Number of tank, Capacity (m3)		Not Applied							
Sludge drying facilities type				Mechanical dewatering									
				Treating capacity (m3/hour)		Not Applied							
				Sludge drying beds		Not Applied							
				Number of beds		Not Applied							
				Total volume (m3)		Not Applied							
				Dry cake final disposal place		Not Applied							
				<b>2.10 Operation and maintenance</b>									
Power fail frequency		Not yet operated		Typical mechanical trouble		Not yet operated							
Typical electrical trouble		Not yet operated		<b>3. Distribution system</b>									
<b>3.1 Distribution reservoir</b>				Type									
Capacity (L/s)				<b>3.2 Pipeline</b>									
Transmission pipe				Diameter (mm), Quantity		150, GI							
				Total length (m)		1,600							
Distribution pipe				Diameter (mm), Quantity		50, PVC							
				Total length (m)		1,450							
Water Meter				Installation water meter		Not Applied							
				Percentage of malfunction meter (		Not Applied							
<b>3.3 Water leakage repair</b>				Number of staff		Not yet operated							
Available Repair tools		Not yet operated		Availability of distribution map		Not yet operated							
Availability of leakage repair records		Not yet operated		Repaired leakages		Not yet operated							
Replacing malfunction water meter		Not yet operated		Estimated UFW (%)		Not yet operated							

Technical Data of SPAM IKK

Province	North Sumatra	PDAM	Ashahan	SPAM IKK	Kisaran	2006
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<b>1.Population and Area (Existing area included)</b>	A-2
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Total population	688,529 person	Total household	162,093 household
Service area population	334,981 person	Service area household	32,983 household
Population served	85,140 person	Household served	17,028 household
Coverage	25.4 %	Coverage	51.6 %
Area	3799.5 km2		

<b>2.Design and construction organizations</b>
--

Design organizations	Construction organizations
Intake, WTP	Intake, WTP
Distribution	Distribution

<b>3.Operational status of projects facilities</b>
--

Operation status	All running
Cause some or all of the running yet	

<b>4.Operational status (Existing area included)</b>
--

Hours of operation	24 hours/day	Connections (active only)	
Water produced	4,825,521 m3/year	Social	5
Water sold	2,978,058 m3/year	Public Hydrant	20
Water sold	248171.5 m3/connection/month	Domestic	Special
Unaccounted for water	1,623,229 m3/year	Government	-
Unaccounted for water	35.28 %	Total	35 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	
Actual existence of repair	Yes, No
Distributions	
Working conditions	
Actual existence of repair	Yes, No

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)	Distributions (from Dinas PU)
Drawings and Maintenance plans	Drawings and Maintenance plans
Education and training for maintenance	Education and training for maintenance

Technical Data of SPAM IKK

Province	North Sumatra	PDAM	Ashahan	SPAM IKK	Kisaran	2006
<b>1. Water Source</b>		Chemical for disinfection	Liquid chlorine	Head (m)		80
<b>1.1 Location</b>		Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	5	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	9	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Deep well	Engineer	3	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	7	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10	Total	19	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	3	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	-	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	-	Total surface area	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	-	Total tank volume	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	-	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	<i>Not Applied</i>	
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	-	Total surface area	<i>Not Applied</i>	Power fail frequency	<i>Not recorded</i>	
Working condition	-	Filtration rate	<i>Not Applied</i>	Typical mechanical trouble	Leakage of pipe, Meter damage	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Over current of pump, Low voltage	
Type	Deep well	Mixing methods	<i>Not Applied</i>	<b>3. Distribution system</b>		
Diameter (mm)	250	Type of mixer	<i>Not Applied</i>	<b>3.1 Distribution reservoir</b>		
Depth(m)	200	Working condition	<i>Not Applied</i>	Type	<i>Not Applied</i>	
Discharge rate(L/s)	10	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	<i>Not Applied</i>	
SWL / PWL(m)	40 (Static)	Jar tester	1	<b>3.2 Pipeline</b>		
Operation hours	24	Turbidity meter	1	Transmission pipe		
Type of pump	Submertible	pH meter	1	Diameter (mm), Quantity	200-300, HDPE	
Working condition	Fair	<b>2.6 Rapid sand filter</b>		Total length (m)	1,800	
<b>1.4 Water Quality Data</b>		Number of filters	8	Distribution pipe		
Annual Max Turbidity	1500	Total surface area (m2)	20	Diameter (mm), Quantity	50-150, PVC, GI, HDPE	
Annual Ave Turbidity	90	Filtration rate (m3/m2/day)	50	Total length (m)	91,555	
Annual Max pH	9.8	Backwashing type	By elev.tank	Water Meter		
Annual Min pH	9.8	Auxiliary backwash system	Water only	Installation water meter	8,273	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter	40.0%	
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	2	Number of staff	10	
<b>2.1 Basic Information (Existing WTP)</b>		Total volume (m3)	1300	Available Repair tools	Sufficient	
Design capacity (L/s)	80	Retention time	2.5	Availability of distribution map	No	
Daily operation hours (hrs)	24	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)	13,221	Type and number	Centrifugal, 7 (3 out of order)	Repaired leakages	250/year	
Type of water treatment	Rapid sand filter	Capacity (L/s)	300-160	Replacing malfunction water meter	200/year	
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)	35	

Technical Data of SPAM IKK

Province	West Sumatra	PDAM	Solok	SPAM IKK	Nagari Koto Suni	2007
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<b>1.Population and Area</b>	B-1
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Total population	34,031 person	Total household	6,806 household	(Data by March 2010)
Service area population	26,046 person	Service area household	5,209 household	
Population served	4,020 person	Household served	3,359 household	
Coverage	15.4 %	Coverage	64.5 %	
Area	295.5 km <sup>2</sup>			

It is not including SPAM IKK Kotosani yet because the system is connected to existing and it is not operated yet due to social conflict

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Dinas Cipta Karya Province, Satker Pusat	Intake, WTP	Dinas Cipta Karya Province, Satker Pusat
Distribution	No design because interconnect to existing system	Distribution	No Apply

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running (3 months only) and stop almost 6 months until now
Cause some or all of the running yet	Delay of distribution pipe construction, social conflict in using SPAM IKK name and political reason (Mayor election)

<b>4.Operational status</b>
-----------------------------

Hours of operation	24 hours/day	Connections (active only)			
Water produced	311,040 m <sup>3</sup> /year	Social	14	Commercial	22
Water sold	118,562 m <sup>3</sup> /year	Public Hydrant	4	Industry	0
Water sold	14 m <sup>3</sup> /connection/month	Domestic	671	Special	0
Unaccounted for water	192,478 m <sup>3</sup> /year	Government	0	-	
Unaccounted for water	61.9 %	Total	711 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good, Fair, poor, Broken
Actual existence of repair	No Apply
Distributions	
Working conditions	Poor and broken
Actual existence of repair	Yes, No

re to existing pipe systems were built in 1984 and about since 2000 was not functioned because no raw water supply, the systems did not use on long time, so many pipe were broken)

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	West Sumatra	PDAM	Solok	SPAM IKK	Nagari Koto Suni	2007
<b>1. Water Source</b>		Chemical for disinfection	Liquid cloraine	Head (m)		<i>Not Applied</i>
<b>1.1 Location</b>		Power source	Diesel genset	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	27	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	<i>Not yet Oprated</i>	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River	Engineer	<i>Not yet Oprated</i>	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	<i>Not yet Oprated</i>	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	300-600	Total	<i>Not yet Oprated</i>	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	<i>Not yet Oprated</i>	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>			Treating capacity (m3/hour)	<i>Not Applied</i>
Type of structure	Concrete	Number of the tanks	<i>Not Applied</i>			
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>			
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>			
Working condition	Good	<b>2.3 Slow sand filter</b>				
Spring Broncapturing		Number of filters	<i>Not Applied</i>			
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>			
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>			
Raw water Collection		<b>2.4 Coagulation facilities</b>				
Type of collection	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing			
Type of structure	<i>Not Applied</i>	Type of mixer	Hydraulic			
Size	<i>Not Applied</i>	Working condition	Good			
Type of pump	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>				
Working condition	<i>Not Applied</i>	Jar tester	1			
<b>1.4 Water Quality Data</b>		Turbidity meter	1			
Annual Max Turbidity	<i>Not yet Oprated</i>	pH meter	-			
Annual Ave Turbidity	<i>Not yet Oprated</i>	<b>2.6 Rapid sand filter</b>				
Annual pH (Max, Min)	<i>Not yet Oprated</i>	Number of filters	4			
Annual alkalinity (Max, Mi)	<i>Not yet Oprated</i>	Total surface area (m2)				
Water quality analysis data		Filtration rate (m3/m2/day)				
Available or not	<i>Not yet Oprated</i>	Backwashing type	Self washing			
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only			
<b>2.1 Basic Information</b>		Type of valves and gates	Manual			
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>				
Daily operation hours (hrs)	<i>Not yet Oprated</i>	Number of reservoirs	1			
Daily production (m3/day)	<i>Not yet Oprated</i>	Total volume (m3)	120			
Type of water treatment	RSF (Package)	Retention time				
Type of coagulant being used	PC, AS, Clorine	<b>2.8 Distribution pump</b>				
		Type and number	<i>Not Applied</i>			
		Capacity (L/s)	<i>Not Applied</i>			
		Diameter (mm)	<i>Not Applied</i>			
		<b>3. Distribution system</b>				
		<b>3.1 Distribution reservoir</b>				
		Type	<i>Not Applied</i>			
		Capacity (L/s)	<i>Not Applied</i>			
		<b>3.2 Pipeline</b>				
		Transmission pipe				
		Diameter (mm), Quantity	<i>N/A (200, GI)</i>			
		Total length (m)	<i>N/A (4,000)</i>			
		Distribution pipe				
		Diameter (mm), Quantity	<i>N/A (75-200, PVC)</i>			
		Total length (m)	<i>N/A (14,178)</i>			
		Water Meter				
		Installation water meter	<i>Not yet applied</i>			
		Percentage of malfunction meter (	<i>Not yet applied</i>			
		<b>3.3 Water leakage repair</b>				
		Number of staff	<i>Not yet Oprated</i>			
		Available Repair tools	<i>Not yet Oprated</i>			
		Availability of distribution map	No			
		Availability of leakage repair records	No			
		Repaired leakages	<i>Not Applied</i>			
		Replacing malfunction water meter	<i>Not Applied</i>			
		Estimated UFW (%)	<i>Not yet Oprated</i>			

Technical Data of SPAM IKK

Province	West Sumatra	PDAM	Kota Sawahlunto	SPAM IKK	Sumpahan	2008
<b>1.Population and Area</b>						B-2
(Data by March 2010)						
Total population	16,158 person	Total household	3,232 household			
Service area population	11,198 person	Service area household	2,240 household			
Population served	7,410 person	Household served	1,482 household			
Coverage	66.2 %	Coverage	66.2 %			
Area	88.55 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Province	Intake, WTP	Satker Pusat			
Distribution	No design because interconnect to existing system		Distribution	No Apply		
<b>3.Operational status of projects facilities</b>						
Operation stas	Some running					
Cause some or all of the running yet	Lack of raw water in dry season					
	[ Raw water is taken from surface water (Sumpahan River) that has not continously debit in a year, abundant water only in rainy season, and in dry season debit is small and can not supply 20 lps raw water to SPAM IKK , just 5-10 lps ]					
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections (active only)				
Water produced	192,958 m3/year	Social	0	Commercial	0	
Water sold	181,449 m3/year	Public Hydrant	0	Industry	0	
Water sold	m3/connection/month	Domestic	1,482	Special	0	
Unaccounted for water	m3/year	Government	0	-		
Unaccounted for water	40 %	Total	1,482 connections			
(Facilities ara operated for only 5 months on wet season in a year)						
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	No Apply					
Distributions						
Working conditions	Poor , due to twisting roads and steepy, distribution pipe have leakage at join pipe					
Actual existence of repair	Yes, No					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No	Drawings and Maintenance plans				No
Education and training for maintenance	No	Education and training for maintenance				No

Technical Data of SPAM IKK

Province	West Sumatra	PDAM	Kota Sawahlunto	SPAM IKK	Sumpahan	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		N/A (40)
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	4	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration		Number of tank, Capacity (m3)	Not Applied	
Type	River	Engineer		Sludge regulating tank		
Gravity / Pumped	Gravity	Operator		Number of tank, Capacity (m3)	Not Applied	
Capacity (L/s)	20	Total		Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	Not Applied	
Type of structure	Not Applied	Number of the tanks	Not Applied	Sludge drying beds		
Type of screen	Not Applied	Total surface area (m2)	Not Applied	Number of beds	2	
Type of Grit chamber	Not Applied	Total tank volume (m3)	Not Applied	Total volume (m3)	12	
Working condition	Not Applied	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	Not Applied	<b>2.10 Operation and maintenance</b>		
Type of structure	Not Applied	Total surface area (m2)	Not Applied	Power fail frequency	Not recorded	
Working condition	Not Applied	Filtration rate (m3/m2/day)	Not Applied	Typical mechanical trouble	Not recorded	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Not recorded	
Type of collection	basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure		Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	L=3, W=3, H=2m	Working condition	R : Good, S : Poor	Type	Concrete, On ground	
Type of pump		<b>2.5 Water quality test equipments</b>		Capacity (L/s)	300	
Working condition		Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	Not measured	pH meter	-	Diameter (mm), Quantity	N/A (200, PVC, GI)	
Annual Ave Turbidity	Not measured	<b>2.6 Rapid sand filter</b>		Total length (m)	N/A (3,900)	
Annual pH (Max, Min)	Not measured	Number of filters	4	Distribution pipe		
Annual alkalinity (Max, Min)	Not measured	Total surface area (m2)		Diameter (mm), Quantity	N/A (50-250, PVC, GI, DCIP)	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	N/A (22,943)	
Available or not	Not measured	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	1,482	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	24	Number of reservoirs	1	Number of staff	3	
Daily production (m3/day)	1284	Total volume (m3)	300	Available Repair tools	Sufficient	
Type of water treatment	RSF (Package)	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	PAC, AS, Soda ash	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	N/A (Centrifugal, 3)	Repaired leakages	1008 (Data 2009)	
		Capacity (L/s)	N/A (10)	Replacing malfunction water meter	300	
		Diameter (mm)		Estimated UFW (%)	40	



Technical Data of SPAM IKK

Province	Riau	PDAM	Rokan Hulu	SPAM IKK	Tandun	2007
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<b>1.Population and Area</b>	B-5
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Total population	24,722 person	Total household	5,871 household
Service area population	5,773 person	Service area household	1,411 household
Population served	1,460 person	Household served	292 household
Coverage	25.3 %	Coverage	20.7 %
Area	387 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	BPAB & Dinas PU Kabupaten	Distribution	Dinas PU Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[Delay of distribution pipes and house connection]
	[Adjusted to the requirement of house connection which is still less comparing to the capacity of WTP]

<b>4.Operational status</b>
-----------------------------

Hours of operation	8 hours/day	Connections (active only)	
Water produced	- m <sup>3</sup> /year	Social	2 Commercial 15
Water sold	39,420 m <sup>3</sup> /year	Public Hydrant	0 Industry 0
Water sold	20 m <sup>3</sup> /connection/month	Domestic	275 Special 0
Unaccounted for water	1,800 m <sup>3</sup> /year	Government	0 -
Unaccounted for water	5.1 %	Total	292 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No



Technical Data of SPAM IKK

Province	Riau	PDAM	Kuantan Singingi	SPAM IKK	Inuman	2008
<b>1.Population and Area</b>						B-6
Total population	17,319 person	Total household	4,956 household			
Service area population	3,698 person	Service area household	1,067 household			
Population served	1,405 person	Household served	281 household			
Coverage	38.0 %	Coverage	26.3 %			
Area	450.01 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Central Satker		Intake, WTP	Central Satker		
Distribution	BPAB & Dinas PU Kabupaten		Distribution	Dinas PU Kabupaten		
<b>3.Operational status of projects facilities</b>						
Operation stas	Some running					
Cause some or all of the running yet	[Delay of distribution pipes and house connection]					
	[Adjusted to the requirement of house connection which is still less comparing to the capacity of WTP]					
<b>4.Operational status</b>						
Hours of operaiton	6 hours/day			Connections (active only)		
Water produced	<i>No official recorded</i> m3/year			Social	-	Commercial
Water sold	<i>No official recorded</i> m3/year			Public Hydrant	-	Industry
Water sold	<i>No official recorded</i> m3/connection/month			Domestic	-	Special
Unaccounted for water	<i>No official recorded</i> m3/year			Government	-	-
Unaccounted for water	- %			Total	-	connections
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	Yes					
Distributions						
Working conditions	Good					
Actual existence of repair	Yes					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans	No		
Education and training for maintenance	No		Education and training for maintenance	No		

Technical Data of SPAM IKK

Province Riau		PDAM	Kuantan Singingi	SPAM IKK	Inuman	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)	-	
<b>1.1 Location</b>		Power source	Diesel E.Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	10	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Indragiri River	Engineer	1	Sludge regulating tank		
Gravity / Pumped	pump	Operator	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	20	Total	3	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	<i>Not Applied (No Commercial electricity)</i>	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Pipe leakage (road construction)	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Cotactor burn	
Type of collection		Mixing methods	Rapid mixing	<b>3. Distribution system</b>		
Type of structure		Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)		Working condition	Good	Type	Concrete, On ground	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	100	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	-	Transmission pipe		
Annual Max Turbidity	Not measured	pH meter	-	Diameter (mm), Quantity	150, PVC, GI	
Annual Ave Turbidity	Not measured	<b>2.6 Rapid sand filter</b>		Total length (m)	618	
Annual pH (Max, Min)	Not measured	Number of filters	2	Distribution pipe		
Annual alkalinity (Max, Min)	Not measured	Total surface area (m2)		Diameter (mm), Quantity	50-200, PVC, GI	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	10,000	
Available or not	Not measured	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	272	
<b>2.1 Basic Information</b>		Type of valves and gates	Munual	Percentage of malfunction meter	- (Not Any)	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	6	Number of reservoirs	1	Number of staff	3	
Daily production (m3/day)	<i>No official record</i>	Total volume (m3)	100	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	AS	<b>2.8 Distribution pump</b>		Availability of leakage repair record	No	
		Type and number	Centrifugal, 3	Repaired leakages	<i>Not recorded</i>	
		Capacity (L/s)	10	Replacing malfunction water meter	<i>Not recorded</i>	
		Diameter (mm)	150	Estimated UFW (%)	<i>Not recorded</i>	

Technical Data of SPAM IKK

Province	Jambi	PDAM	Muaro Jambi	SPAM IKK	Candi Muaro	2005
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<b>1.Population and Area</b>						B-7
						(Data by March 2010)
Total population	29,031 person	Total household	5,744 household			
Service area population	2,286 person	Service area household	457 household			
Population served	405 person	Household served	99 household			
Coverage	17.7 %	Coverage	21.7 %			
Area	673.5 km <sup>2</sup>					

<b>2.Design and construction organizations</b>			
Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	Satker Province	Distribution	Satker Province

<b>3.Operational status of projects facilities</b>	
Operation status	Basically running
Cause some or all of the running yet	Dozing pump is not used (broken), conducted manually. Transmission pipe is leakage
	Intake pump is quite big (after replacement of the existing pump), sometimes, the inlet water is overflow from the WTP
	No budget to repair dozing pump

<b>4.Operational status</b>			
Hours of operation	2 hours/day	Connections (active only)	
Water produced	13,124 m <sup>3</sup> /year	Social	0 Commercial 0
Water sold	3,520 m <sup>3</sup> /year	Public Hydrant	0 Industry 0
Water sold	4 m <sup>3</sup> /connection/month	Domestic	99 Special 0
Unaccounted for water	9,604 m <sup>3</sup> /year	Government	0 -
Unaccounted for water	73.18 %	Total	99 connections

(Data by March 2010)

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	Good
Actual existence of repair	-
Distributions	
Working conditions	Good
Actual existence of repair	-

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No



Technical Data of SPAM IKK

Province	Jambi	PDAM	Batang Hari	SPAM IKK	Lubuk Ruso	2007
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<b>1.Population and Area</b>						B-8
Total population	28,362 person	Total household	5,672 household	(Data by March 2010)		
Service area population	3,294 person	Service area household	650 household			
Population served	292 person	Household served	90 household			
Coverage	8.9 %	Coverage	13.8 %			
Area	957.5 km <sup>2</sup>					

<b>2.Design and construction organizations</b>			
Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	Provincial satker	Distribution	Provincial satker

<b>3.Operational status of projects facilities</b>	
Operation status	Good
Cause some or all of the running yet	Doxing pump, distribution pump and generator set are maintained well

<b>4.Operational status</b>			
Hours of operation	3 hours/day	Connections (active only)	
Water produced	15,901 m <sup>3</sup> /year	Social	4 Commercial 5
Water sold	8,302 m <sup>3</sup> /year	Public Hydrant	3 Industry 0
Water sold	9 m <sup>3</sup> /connection/month	Domestic	64 Special 0
Unaccounted for water	6,242 m <sup>3</sup> /year	Government	0 -
Unaccounted for water	42.92 %	Total	76 connections

(Data by March 2010)

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	Good
Actual existence of repair	-
Distributions	
Working conditions	Good, but 600 requests for HC have already submitted (waiting list), but no budget to expand it
Actual existence of repair	

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	Yes	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Jambi	PDAM	Batang Hari	SPAM IKK	Lubuk Ruso	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		7.5
<b>1.1 Location</b>		Power source	Commercial grit	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	5.5	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Batang Hari River	Engineer	(1)	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	(1)	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	5	Total	1	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		
Type of structure	floating (called ponthon)	Number of the tanks	1	Sludge drying beds		
Type of screen	Bar screen manual raking	Total surface area (m2)	6	Number of beds	1	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	24	Total volume (m3)	12	
Working condition	Fair	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	3	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Leakage, Water meter	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Electrics panel	
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Depth(m)	<i>Not Applied</i>	Working condition	good	Type	Concrete, On ground	
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	50	
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	1	<b>3.2 Pipeline</b>		
Operation hours	<i>Not Applied</i>	Turbidity meter	1	Transmission pipe		
Type of pump	<i>Not Applied</i>	pH meter	1	Diameter (mm), Quantity	100, PVC	
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	50	
<b>1.4 Water Quality Data</b>		Number of filters	6	Distribution pipe		
Annual Max Turbidity	Not measured	Total surface area (m2)	2.88	Diameter (mm), Quantity	50-150, PVC	
Annual Ave Turbidity	Not measured	Filtration rate (m3/m2/day)	19	Total length (m)	4,500	
Annual pH (Max, Min)	Not measured	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Min)	Not measured	Auxiliary backwash system	Water only	Installation water meter	90	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (%)	No Data	
Available or not	Not measured	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	1	
<b>2.1 Basic Information</b>		Total volume (m3)	50	Available Repair tools	In sufficient	
Design capacity (L/s)	5	Retention time	1.25	Availability of distribution map	Yes	
Daily operation hours (hrs)	3	<b>2.8 Distribution pump</b>		Availability of leakage repair records	No	
Daily production (m3/day)	54	Type and number	Centrifugal, 4	Repaired leakages	24 (Data 2009)	
Type of water treatment	RSF (Package)	Capacity (L/s)	5	Replacing malfunction water meter	No (all still new)	
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)	43	



Technical Data of SPAM IKK

Province	South Sumatra	PDAM	Banyuasin	SPAM IKK	Tanjung Kerang	2007
<b>1.Population and Area</b>						B-3
Total population	42,037 person	Total household	8,407 household			
Service area population	2,490 person	Service area household	498 household			
Population served	520 person	Household served	104 household			
Coverage	20.9 %	Coverage	20.9 %			
Area	625.55 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Province	Intake, WTP	Satker Pusat			
Distribution	Satker Province	Distribution	Cipta Karya, Kabupaten Banyuasin			
<b>3.Operational status of projects facilities</b>						
Operation stas	Some running					
Cause some or all of the running yet	Delay of construction distribution pipes, Mentainance problem of WTP facilities					
	[ From the end of 2009, the operation of WTP excludes combined flocculation and sedimentation tank due to the tank was broken and under repairing ]					
<b>4.Operational status</b>						
Hours of operation	4-6 hours/day	Connections (active only)				
Water produced	52,560 m3/year	Social	4	Commercial	0	
Water sold	13,200 m3/year	Public Hydrant	2	Industry	0	
Water sold	10 m3/connection/month	Domestic	104	Special	0	
Unaccounted for water	39,360 m3/year	Government	0	-		
Unaccounted for water	74.9 %	Total	110 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Poor (Under repairing combined flocculation and sedimentation tank)					
Actual existence of repair	Yes					
Distributions						
Working conditions	Good condition because new distribution pipeline					
Actual existence of repair	No Apply					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No			
Education and training for maintenance	Yes (Bekasi training center)	Education and training for maintenance	No			

Technical Data of SPAM IKK

Province	South Sumatra	PDAM	Banyuasin	SPAM IKK	Tanjung Kerang	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		45
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)		Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pump	Operator	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10	Total	4	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	Not recorded	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Not recorded	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Not recorded	
Type of collection	Well	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	D=1.5, H=6	Working condition	R : Good, S : Poor	Type	Concrete, On ground	
Type of pump	Submergible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	100	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	Not measured	pH meter	-	Diameter (mm), Quantity		
Annual Ave Turbidity	Not measured	<b>2.6 Rapid sand filter</b>		Total length (m)		
Annual pH (Max, Min)	Not measured	Number of filters		Distribution pipe		
Annual alkalinity (Max, Min)	Not measured	Total surface area (m2)		Diameter (mm), Quantity	50-150, PVC, GI, HDPE	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	2,580	
Available or not	Not measured	Backwashing type		Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system		Installation water meter	110	
<b>2.1 Basic Information</b>		Type of valves and gates		Percentage of malfunction meter (	No Data	
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	4-6	Number of reservoirs	1	Number of staff	1	
Daily production (m3/day)		Total volume (m3)	100	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> , Soda ash, Chlorane	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centifugal, 2	Repaired leakages	300/year	
		Capacity (L/s)	10	Replacing malfunction water meter	60/year	
		Diameter (mm)	100	Estimated UFW (%)	40	

Technical Data of SPAM IKK

Province	South Sumatra	PDAM	Muaraenim	SPAM IKK	Sungai Rotan, Gelumb	2008
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<b>1.Population and Area</b>						B-4
Total population	82,008 person	Total household	16,402 household			
Service area population	30,965 person	Service area household	6,193 household			
Population served	385 person	Household served	77 household			
Coverage	1.2 %	Coverage	1.2 %			
Area	1,115 km2					

<b>2.Design and construction organizations</b>			
Design organizations		Construction organizations	
Intake, WTP	PDAM Kabupaten, use DPDR II budget	Intake, WTP	Satker Pusat
Distribution	PDAM Kabupaten, use DPDR II budget	Distribution	Kabupaten budget put in PDAM

<b>3.Operational status of projects facilities</b>	
Operation status	Some running
Cause some or all of the running yet	Delay of construction of distribution pipes

<b>4.Operational status</b>			
Hours of operation	2-3 hours/day	Connections (active only)	
Water produced	4,692 m3/year	Social	4 Commercial 0
Water sold	3,633 m3/year	Public Hydrant	0 Industry 0
Water sold	5 m3/connection/month	Domestic	77 Special 0
Unaccounted for water	1,059 m3/year	Government	0 -
Unaccounted for water	22.6 %	Total	81 connections

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	Good
Actual existence of repair	No Apply
Distributions	
Working conditions	Good
Actual existence of repair	No Apply

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	Yes
Education and training for maintenance	Yes (Bekasi training center)	Education and training for maintenance	No



Technical Data of SPAM IKK

Province	Lampung	PDAM	Pasawaran	SPAM IKK	Way Lima	2007
<b>1.Population and Area</b>						B-9
(Data by March 2010)						
Total population	33,651 person	Total household	8,220 household			
Service area population	25,912 person	Service area household	6,478 household			
Population served	3,060 person	Household served	511 household			
Coverage	11.8 %	Coverage	7.9 %			
Area	957.5 km <sup>2</sup>					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Pusat		Intake, WTP	Satker Pusat		
Distribution	Provincial Satker		Distribution	Provincial Satker		
<b>3.Operational status of projects facilities</b>						
Operation status	All running					
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operation	12 hours/day	Connections (active only)				
Water produced	114,911 m <sup>3</sup> /year	Social	4	Commercial	0	
Water sold	54,195 m <sup>3</sup> /year	Public Hydrant	2	Industry	0	
Water sold	8 m <sup>3</sup> /connection/month	Domestic	511	Special	0	
Unaccounted for water	60,716 m <sup>3</sup> /year	Government	1	-		
Unaccounted for water	52.84 %	Total	518	connections		
(Data by March 2010)						
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair						
Distributions						
Working conditions	Good, but house connection is decreasing due to affordability to pay users are low					
Actual existence of repair						
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans		No	
Education and training for maintenance	Yes, by Cipta Karya training center		Education and training for maintenance		No	

Technical Data of SPAM IKK

Province	Lampung	PDAM	Pasawaran	SPAM IKK	Way Lima	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		(10)
<b>1.1 Location</b>		Power source	- (send by Gravity)	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	6	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	3	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Cipadang River	Engineer	1	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	6	Total	6	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		
Type of structure	Concrete	Number of the tanks	1	Sludge drying beds		
Type of screen	Bar screen manual raking	Total surface area (m2)	12	Number of beds	6	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	60	Total volume (m3)	30	
Working condition	Good	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Leackage, Water meter	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	(They no longer used electricity)	
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Mechanical	<b>3.1 Distribution reservoir</b>		
Depth(m)	<i>Not Applied</i>	Working condition	Good	Type	Concrete, On ground	
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	200	
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	1	<b>3.2 Pipeline</b>		
Operation hours	<i>Not Applied</i>	Turbidity meter	1	Transmission pipe		
Type of pump	<i>Not Applied</i>	pH meter	1	Diameter (mm), Quantity	200, PVC	
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	1,800	
<b>1.4 Water Quality Data</b>		Number of filters	4	Distribution pipe		
Annual Max Turbidity	Not measured	Total surface area (m2)	8	Diameter (mm), Quantity	50-200, PVC	
Annual Ave Turbidity	Not measured	Filtration rate (m3/m2/day)	31	Total length (m)	2,250	
Annual pH (Max, Min)	Not measured	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Min)	Not measured	Auxiliary backwash system	Water only	Installation water meter	610	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Available or not	Not measured	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	1	
<b>2.1 Basic Information</b>		Total volume (m3)	200	Available Repair tools	Sufficient	
Design capacity (L/s)	10	Retention time	9	Availability of distribution map	No	
Daily operation hours (hrs)	12	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)	250-300	Type and number	(Centrifugal, 3)	Repaired leakages	20 (Data 2009)	
Type of water treatment	RSF (Package)	Capacity (L/s)	(5)	Replacing malfunction water meter		
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)	53	

Technical Data of SPAM IKK

Province	Bengkulu	PDAM	Rejang Lebong	SPAM IKK	Kotapadang	2006
<b>1.Population and Area</b>						B-10
Total population	14,182 person	Total household	<i>o official recorded</i> household			
Service area population	<i>No official recorded</i> person	Service area household	<i>o official recorded</i> household			
Population served	<i>No official recorded</i> person	Household served	<i>o official recorded</i> household			
Coverage	<i>No official recorded</i> %	Coverage	<i>o official recorded</i> %			
Area	km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Central Satker		Intake, WTP	Central Satker		
Distribution	BPAB & Dinas PU Kabupaten		Distribution	Dinas PU Kabupaten		
<b>3.Operational status of projects facilities</b>						
Operation stas	Not operationg yet					
Cause some or all of the running yet	[The distribution network pipe to house connection is not yet constructed]					
<b>4.Operational status</b>						
Hours of operaiton	6 hours/day		Connections (active only)			
Water produced	<i>No yet operated</i> m3/year		Social	-	Commercial	-
Water sold	<i>No yet operated</i> m3/year		Public Hydrant	-	Industry	-
Water sold	<i>No yet operated</i> m3/connection/month		Domestic	-	Special	-
Unaccounted for water	<i>No yet operated</i> m3/year		Government	-	-	-
Unaccounted for water	- %		Total	-	connections	-
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	Yes					
Distributions						
Working conditions	Good					
Actual existence of repair	Yes					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans	No		
Education and training for maintenance	No		Education and training for maintenance	No		

Technical Data of SPAM IKK

Province	Bengkulu	PDAM	Rejang Lebong	SPAM IKK	Kotapadang	2006
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		80
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	6	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	<i>Not yet operated</i>	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Sange River	Engineer	<i>Not yet operated</i>	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	<i>Not yet operated</i>	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	20	Total	<i>Not yet operated</i>	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	<i>Not yet operated</i>	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	Concrete	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	Bar screen manual raking	Total surface area (m2)	<i>Not Applied</i>	Number of beds	2	
Type of Grit chamber	Not Applied	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		
Working condition	Good	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	<i>Not yet operated</i>	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	<i>Not yet operated</i>	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	<i>Not yet operated</i>	
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Depth(m)	<i>Not Applied</i>	Working condition	Good	Type	Concrete, On ground	
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	200	
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	1	<b>3.2 Pipeline</b>		
Operation hours	<i>Not Applied</i>	Turbidity meter	1	Transmission pipe		
Type of pump	<i>Not Applied</i>	pH meter	1	Diameter (mm), Quantity	200, HDPE	
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	4,027	
<b>1.4 Water Quality Data</b>		Number of filters	4	Distribution pipe		
Annual Max Turbidity	<i>Not yet operated</i>	Total surface area (m2)		Diameter (mm), Quantity	50-200, PVC	
Annual Ave Turbidity	<i>Not yet operated</i>	Filtration rate (m3/m2/day)		Total length (m)	13,992	
Annual pH (Max, Min)	<i>Not yet operated</i>	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Min)	<i>Not yet operated</i>	Auxiliary backwash system	Water only	Installation water meter	<i>Not Applied</i>	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	<i>Not Applied</i>	
Available or not	<i>Not yet operated</i>	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	<i>Not yet operated</i>	
<b>2.1 Basic Information</b>		Total volume (m3)	300	Available Repair tools	<i>Not yet operated</i>	
Design capacity (L/s)	20	Retention time		Availability of distribution map	<i>Not yet operated</i>	
Daily operation hours (hrs)	<i>Not yet operated</i>	<b>2.8 Distribution pump</b>		Availability of leakage repair records	<i>Not yet operated</i>	
Daily production (m3/day)	<i>Not yet operated</i>	Type and number	Centrifugal, 2	Repaired leakages	<i>Not yet operated</i>	
Type of water treatment	RSF	Capacity (L/s)	10	Replacing malfunction water meter	<i>Not yet operated</i>	
Type of coagulant being used	PAC	Diameter (mm)	150	Estimated UFW (%)	<i>Not yet operated</i>	



Technical Data of SPAM IKK

Province	Bengkulu	PDAM	Rejang Lebong	SPAM IKK	Selupu Rejang & Curu	2007
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<b>1.Population and Area</b>	B-11
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Total population	60,696 person	Total household	14,049 household
Service area population	41,413 person	Service area household	9,669 household
Population served	17,980 person	Household served	3,596 household
Coverage	43 %	Coverage	37 %
Area	1,216 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	BPAB & Dinas PU Kabupaten	Distribution	Dinas PU Kabupaten

<b>3.Operational status of projects facilities</b>
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Operation status	All running
Cause some or all of the running yet	

<b>4.Operational status</b>
-----------------------------

Hours of operation	24 hours/day	Connections (active only)	
Water produced	1,584,400 m3/year	Social	0 Commercial 0
Water sold	1,118,428 m3/year	Public Hydrant	2 Industry 0
Water sold	26 m3/connection/month	Domestic	0 Special 0
Unaccounted for water	465,982 m3/year	Government	0 - -
Unaccounted for water	29.4 %	Total	2 connections

<b>5.Maintenance status</b>
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Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province Bengkulu		PDAM	Rejang Lebong	SPAM IKK Selupu Rejang & Curup Timur	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)	<i>Not Applied</i>
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>	
Distance from core area (km)	3	Plant management staff		Back washed water regulation tank	
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>
Type	Air Musi Kejalo River	Engineer	0	Sludge regulating tank	
Gravity / Pumped	Gravity	Operator	5	Number of tank, Capacity (m3)	1, 24
Capacity (L/s)	50	Total	5	Sludge drying facilities type	
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering	
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>
Type of structure	Concrete	Number of the tanks	<i>Not Applied</i>	Sludge drying beds	
Type of screen	Bar screen manual raking	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>
Working condition	Good	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	<i>Not Applied</i>
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>	
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	Not recorded
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Flooding at Intake Weir
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	No electric power (economical reason)
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing	<b>3. Distribution system</b>	
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Mechanical	<b>3.1 Distribution reservoir</b>	
Depth(m)	<i>Not Applied</i>	Working condition	Good	Type	Concrete, On ground
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	1,760
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	1	<b>3.2 Pipeline</b>	
Operation hours	<i>Not Applied</i>	Turbidity meter	1	Transmission pipe	
Type of pump	<i>Not Applied</i>	pH meter	1	Diameter (mm), Quantity	300, PVC, GI
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	2,530
<b>1.4 Water Quality Data</b>		Number of filters	6	Distribution pipe	
Annual Max Turbidity	28.06	Total surface area (m2)	24	Diameter (mm), Quantity	50-300, PVC
Annual Ave Turbidity	1.8	Filtration rate (m3/m2/day)		Total length (m)	4,700
Annual pH (Max, Min)	6.5, 7.4	Backwashing type	Self washing	Water Meter	
Annual alkalinity (Max, Min)	Not mesured	Auxiliary backwash system	Water only	Installation water meter	3,596
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (%)	23%
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>	
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	7
<b>2.1 Basic Information</b>		Total volume (m3)	200	Available Repair tools	Sufficient
Design capacity (L/s)	50	Retention time		Availability of distribution map	Yes
Daily operation hours (hrs)	24	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes
Daily production (m3/day)	4600	Type and number	<i>Not Applied</i>	Repaired leakages	Not recorded
Type of water treatment	RSF	Capacity (L/s)	<i>Not Applied</i>	Replacing malfunction water meter	Not recorded
Type of coagulant being used	PAC	Diameter (mm)	<i>Not Applied</i>	Estimated UFW (%)	29.41

Technical Data of SPAM IKK

Province	Banten	PDAM	Serang	SPAM IKK	Cikande	2008
<b>1.Population and Area</b>						B-12
Total population	135,118 person	Total household	37,527 household			
Service area population	36,101 person	Service area household	9,025 household			
Population served	10,752 person	Household served	2,688 household			
Coverage	30 %	Coverage	30 %			
Area	84.0 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Central Satker		Intake, WTP	Central Satker		
Distribution	Provincial Satker and PDAM		Distribution	Provincial Satker		
<b>3.Operational status of projects facilities</b>						
Operation status	All running					
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections (active only)				
Water produced	929,799 m3/year	Social	56	Commercial	0	
Water sold	819,430 m3/year	Public Hydrant	0	Industry	0	
Water sold	21 m3/connection/month	Domestic	3,233	Special	0	
Unaccounted for water	110,369 m3/year	Government	0	-		
Unaccounted for water	12.0 %	Total	3,289 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	Yes					
Distributions						
Working conditions	Good					
Actual existence of repair	Yes					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	yes	Drawings and Maintenance plans	yes			
Education and training for maintenance	yes	Education and training for maintenance	yes			



Technical Data of SPAM IKK

Province	Java Barat	PDAM	Kuningan	SPAM IKK	Grawangi	2008
<b>1.Population and Area</b>						B-13
Total population	118,385 person	Total household	31,764 household			
Service area population	52,443 person	Service area household	12,812 household			
Population served	5,160 person	Household served	1,032 household			
Coverage	9.8 %	Coverage	8.1 %			
Area	96.8 km <sup>2</sup>					
[ This project consist of only Raw water conveyor pipe from water source at Darmaloka spring to 5 existing service networks of Garawangi, Lebakwangi etc. ]						
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Pusat		Intake, WTP	Satker Pusat		
Distribution	N/A		Distribution	N/A		
<b>3.Operational status of projects facilities</b>						
Operation stas	-					
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operaiton	- hours/day	Connections (active only)				
Water produced	- m <sup>3</sup> /year	Social	-	Commercial	-	
Water sold	- m <sup>3</sup> /year	Public Hydrant	-	Industry	-	
Water sold	- m <sup>3</sup> /connection/month	Domestic	-	Special	-	
Unaccounted for water	- m <sup>3</sup> /year	Government	-			
Unaccounted for water	- %	Total		- connections		
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	-					
Actual existence of repair	-					
Distributions						
Working conditions	-					
Actual existence of repair	-					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	-		Drawings and Maintenance plans		-	
Education and training for maintenance	-		Education and training for maintenance		-	

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Kuningan	SPAM IKK	Grawangi	2008
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>		Head (m)	<i>Not Applied</i>
<b>1.1 Location</b>		Power source	<i>Not Applied</i>		<b>2.9 Sludge management facilities</b>	
Distance from core area (km)	15	Plant management staff			Back washed water regulation tank	
<b>1.2 Water Source &amp; capacity</b>		Administration	<i>Not Applied</i>		Number of tank, Capacity (m3)	<i>Not Applied</i>
Type	Spring	Engineer	<i>Not Applied</i>		Sludge regulating tank	
Gravity / Pumped	Gravity	Operator	<i>Not Applied</i>		Number of tank, Capacity (m3)	<i>Not Applied</i>
Capacity (L/s)	80	Total	<i>Not Applied</i>		Sludge drying facilities type	
<b>1.3 Water Intake Structure</b>		Operation shifts per day	<i>Not Applied</i>		Mechanical dewatering	
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>		Sludge drying beds	
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Number of beds	<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>		Total volume (m3)	<i>Not Applied</i>
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>		<b>2.10 Operation and maintenance</b>	
Type of structure	HDPE pipe	Total surface area (m2)	<i>Not Applied</i>		Power fail frequency	<i>Not Applied</i>
Working condition	Good	Filtration rate (m3/m2/day)	<i>Not Applied</i>		Typical mechanical trouble	<i>Not Applied</i>
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	<i>Not Applied</i>	
Type of collection	<i>Not Applied</i>	Mixing methods	<i>Not Applied</i>		<b>3. Distribution system</b>	
Type of structure	<i>Not Applied</i>	Type of mixer	<i>Not Applied</i>		<b>3.1 Distribution reservoir</b>	
Size (m)	<i>Not Applied</i>	Working condition	<i>Not Applied</i>		Type	<i>Not Applied</i>
Type of pump	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	Jar tester	<i>Not Applied</i>		<b>3.2 Pipeline</b>	
<b>1.4 Water Quality Data</b>		Turbidity meter	<i>Not Applied</i>		Transmission pipe	
Annual Max Turbidity	<i>Not Applied</i>	pH meter	<i>Not Applied</i>		Diameter (mm), Quantity	350, HDPE
Annual Ave Turbidity	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	9,300	
Annual pH (Max, Min)	<i>Not Applied</i>	Number of filters	<i>Not Applied</i>		Distribution pipe	
Annual alkalinity (Max, Mi)	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Diameter (mm), Quantity	<i>Not Applied</i>
Water quality analysis data		Filtration rate (m3/m2/day)	<i>Not Applied</i>		Total length (m)	<i>Not Applied</i>
Available or not	<i>Not Applied</i>	Backwashing type	<i>Not Applied</i>		Water Meter	
<b>2. Treatment Systems</b>		Auxiliary backwash system	<i>Not Applied</i>		Installation water meter	<i>Not Applied</i>
<b>2.1 Basic Information</b>		Type of valves and gates	<i>Not Applied</i>		Percentage of malfunction meter (	<i>Not Applied</i>
Design capacity (L/s)	<i>Not Applied</i>	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	<i>Not Applied</i>	Number of reservoirs	<i>Not Applied</i>		Number of staff	<i>Not Applied</i>
Daily production (m3/day)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>		Available Repair tools	<i>Not Applied</i>
Type of water treatment	<i>Not Applied</i>	Retention time	<i>Not Applied</i>		Availability of distribution map	<i>Not Applied</i>
Type of coagulant being used	<i>Not Applied</i>	<b>2.8 Distribution pump</b>		Availability of leakage repair records	<i>Not Applied</i>	
		Type and number	<i>Not Applied</i>		Repaired leakages	<i>Not Applied</i>
		Capacity (L/s)	<i>Not Applied</i>		Replacing malfunction water meter	<i>Not Applied</i>
		Diameter (mm)	<i>Not Applied</i>		Estimated UFW (%)	<i>Not Applied</i>

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Kuningan	SPAM IKK	Luragung	2008
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<b>1.Population and Area</b>	B-14
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Total population	82,832 person	Total household	22,144 household
Service area population	41,560 person	Service area household	12,941 household
Population served	7,480 person	Household served	1,496 household
Coverage	18.0 %	Coverage	11.6 %
Area	63.2 km <sup>2</sup>		

[ This project consist of only Raw water conveyor pipe from water source at Darmaloka spring to 5 existing service networks of Garawangi, Lebakwangi etc. ]

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	N/A	Distribution	N/A

<b>3.Operational status of projects facilities</b>
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Operation stas	-
Cause some or all of the running yet	

<b>4.Operational status</b>
-----------------------------

Hours of operaiton	- hours/day	Connections (active only)	
Water produced	- m <sup>3</sup> /year	Social	- Commercial -
Water sold	- m <sup>3</sup> /year	Public Hydrant	- Industry -
Water sold	- m <sup>3</sup> /connection/month	Domestic	- Special -
Unaccounted for water	- m <sup>3</sup> /year	Government	- -
Unaccounted for water	- %	Total	- connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	-
Actual existence of repair	-
Distributions	
Working conditions	-
Actual existence of repair	-

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	-	Drawings and Maintenance plans	-
Education and training for maintenance	-	Education and training for maintenance	-

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Kuningan	SPAM IKK	Luragung	2008
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>	Head (m)		<i>Not Applied</i>
<b>1.1 Location</b>		Power source	<i>Not Applied</i>	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	15	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	<i>Not Applied</i>	Number of tank, Capacity (m3)		<i>Not Applied</i>
Type	Spring	Engineer	<i>Not Applied</i>	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	<i>Not Applied</i>	Number of tank, Capacity (m3)		<i>Not Applied</i>
Capacity (L/s)	80	Total	<i>Not Applied</i>	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	<i>Not Applied</i>	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		<i>Not Applied</i>
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds		<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		<i>Not Applied</i>
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	HDPE pipe	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		<i>Not Applied</i>
Working condition	Good	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		<i>Not Applied</i>
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		<i>Not Applied</i>
Type of collection	<i>Not Applied</i>	Mixing methods	<i>Not Applied</i>	<b>3. Distribution system</b>		
Type of structure	<i>Not Applied</i>	Type of mixer	<i>Not Applied</i>	<b>3.1 Distribution reservoir</b>		
Size (m)	<i>Not Applied</i>	Working condition	<i>Not Applied</i>	Type		<i>Not Applied</i>
Type of pump	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		<i>Not Applied</i>
Working condition	<i>Not Applied</i>	Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Annual Max Turbidity	<i>Not Applied</i>	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity		350, HDPE
Annual Ave Turbidity	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)		9,300
Annual pH (Max, Min)	<i>Not Applied</i>	Number of filters	<i>Not Applied</i>	Distribution pipe		
Annual alkalinity (Max, Min)	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Diameter (mm), Quantity		<i>Not Applied</i>
Water quality analysis data		Filtration rate (m3/m2/day)	<i>Not Applied</i>	Total length (m)		<i>Not Applied</i>
Available or not	<i>Not Applied</i>	Backwashing type	<i>Not Applied</i>	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	<i>Not Applied</i>	Installation water meter		<i>Not Applied</i>
<b>2.1 Basic Information</b>		Type of valves and gates	<i>Not Applied</i>	Percentage of malfunction meter (%)		<i>Not Applied</i>
Design capacity (L/s)	<i>Not Applied</i>	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	<i>Not Applied</i>	Number of reservoirs	<i>Not Applied</i>	Number of staff		<i>Not Applied</i>
Daily production (m3/day)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	Available Repair tools		<i>Not Applied</i>
Type of water treatment	<i>Not Applied</i>	Retention time	<i>Not Applied</i>	Availability of distribution map		<i>Not Applied</i>
Type of coagulant being used	<i>Not Applied</i>	<b>2.8 Distribution pump</b>		Availability of leakage repair records		<i>Not Applied</i>
		Type and number	<i>Not Applied</i>	Repaired leakages		<i>Not Applied</i>
		Capacity (L/s)	<i>Not Applied</i>	Replacing malfunction water meter		<i>Not Applied</i>
		Diameter (mm)	<i>Not Applied</i>	Estimated UFW (%)		<i>Not Applied</i>



Technical Data of SPAM IKK

Province	Banten	PDAM	Cirebon	SPAM IKK	Ciwaringin	2008
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<b>1.Population and Area</b>	B-15
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Total population	36,384 person	Total household	11,903 household
Service area population	23,553 person	Service area household	7,385 household
Population served	0 person	Household served	0 household
Coverage	0.0 %	Coverage	0.0 %
Area	17.8 km <sup>2</sup>		

[The SPAM IKK Ciwaringin plant was never actually operated since there are no pipe distribution network for house connection ever constructed.]

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Province
Distribution	Dinas PU	Distribution	Dinas PU

<b>3.Operational status of projects facilities</b>
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Operation status	Not running yet
Cause some or all of the running yet	[The WTP completed & temporarily hand-over for operation to PDAM by December 2008, but until the date there are no pipe distribution network construct for house connection with reason of limitation of local budget. ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	Not operated yet hours/day	Connections (active only)			
Water produced	Not operated yet m <sup>3</sup> /year	Social	0	Commercial	0
Water sold	Not operated yet m <sup>3</sup> /year	Public Hydrant	0	Industry	0
Water sold	Not operated yet m <sup>3</sup> /connection/month	Domestic	0	Special	0
Unaccounted for water	Not operated yet m <sup>3</sup> /year	Government	0	-	
Unaccounted for water	Not operated yet %	Total	0 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Not operated yet
Actual existence of repair	Not operated yet
Distributions	
Working conditions	Not operated yet
Actual existence of repair	Not operated yet

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Cirebon	SPAM IKK	Ciwaringin	2008
<b>1. Water Source</b>		Chemical for disinfection		Bleaching powder		
<b>1.1 Location</b>		Power source		Diesel E. Generator		
Distance from core area (km)	2.3	Plant management staff				
<b>1.2 Water Source &amp; capacity</b>		Administrator		0		
Type	River	Engineer		0		
Gravity / Pumped	Pump	Operator		0		
Capacity (L/s)	20	Total		3		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		3		
<b>Weir</b>		<b>2.2 Plain sedimentation tank</b>				
Type of structure	Not Applied	Number of the tanks		Not Applied		
Type of screen	Not Applied	Total surface area (m2)		Not Applied		
Type of Grit chamber	Not Applied	Total tank volume (m3)		Not Applied		
Working condition	Not Applied	<b>2.3 Slow sand filter</b>				
Spring Broncapturing		Som Number of filters		Not Applied		
Type of structure	Not Applied	Total surface area (m2)		Not Applied		
Working condition	Not Applied	Filtration rate (m3/m2/day)		Not Applied		
Raw water Collection		<b>2.4 Coagulation facilities</b>				
Type of collection	Well	Mixing methods		Rapid mixing, Slow mixing		
Type of structure	Concrete	Type of mixer		Hydraulic		
Size (m)		Working condition		Not used now		
Type of pump	Submersible	<b>2.5 W: 56</b>				
Working condition	Good	Jar tester		1		
		Turbidity meter		1		
		pH meter		1		
<b>1.4 Water Quality Data</b>		<b>2.6 Rapid sand filter</b>				
Annual Max Turbidity	Not available	Number of filters		8		
Annual Ave Turbidity	Not available	Total surface area (m2)				
Annual pH (Max, Min)	Not available	Filtration rate (m3/m2/day)				
Annual alkalinity (Max, Mi	Not available	Backwashing type		Self washing		
Water quality analysis data		Auxiliary backwash system		Water only		
Available or not	Not available	Type of valves and gates		Manual		
<b>2. Treatment Systems</b>		<b>2.7 Clear water reservoir</b>				
<b>2.1 Basic Information</b>		Number of reservoirs		1		
Design capacity (L/s)	20	Total volume (m3)		300		
Daily operation hours (hrs)	Not operated yet	Retention time				
Daily production (m3/day)	Not operated yet	<b>2.8 Distribution pump</b>				
Type of water treatment	RSF	Type and number		Centrifugal, 3		
Type of coagulant being used	PAC	Capacity (L/s)		30		
		Diameter (mm)		100		
				<b>2.9 Sludge management facilities</b>		
				Head (m)		
				50		
				Back washed water regulation tank		
				Number of tank, Capacity (m3)		
				Not Applied		
				Sludge regulating tank		
				Number of tank, Capacity (m3)		
				Not Applied		
				Sludge drying facilities type		
				Mechanical dewatering		
				Treating capacity (m3/hour)		
				Not Applied		
				Sludge drying beds		
				Number of beds		
				2		
				Total volume (m3)		
				67		
				Dry cake final disposal place		
				<b>2.10 Operation and maintenance</b>		
				Power fail frequency		
				Not operated yet		
				Typical mechanical trouble		
				Not operated yet		
				Typical electrical trouble		
				Not operated yet		
				<b>3. Distribution system</b>		
				<b>3.1 Distribution reservoir</b>		
				Type		
				Concrete, On ground		
				Capacity (L/s)		
				300		
				<b>3.2 Pipeline</b>		
				Transmission pipe		
				Diameter (mm), Quantity		
				200, HDPE		
				Total length (m)		
				2,800		
				Distribution pipe		
				Diameter (mm), Quantity		
				Not constructed yet		
				Total length (m)		
				Not constructed yet		
				Water Meter		
				Installation water meter		
				Not constructed yet		
				Percentage of malfunction meter (		
				Not constructed yet		
				<b>3.3 Water leakage repair</b>		
				Number of staff		
				Not operated yet		
				Available Repair tools		
				Not operated yet		
				Availability of distribution map		
				Not operated yet		
				Availability of leakage repair records		
				Not operated yet		
				Repaired leakages		
				Not operated yet		
				Replacing malfunction water meter		
				Not operated yet		
				Estimated UFW (%)		
				Not operated yet		

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Bogor	SPAM IKK	Palasari	2008
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<b>1.Population and Area</b>	B-16
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Total population	254,631 person	Total household	56,667 household
Service area population	20,921 person	Service area household	6,002 household
Population served	610 person	Household served	122 household
Coverage	2.9 %	Coverage	2.0 %
Area	67.3 km <sup>2</sup>		

**2.Design and construction organizations**

Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	Dinas PU	Distribution	Dinas PU

**3.Operational status of projects facilities**

Operation status	River (WTP) : Some running
Cause some or all of the running yet	[Delay of distribution pipe construction]
	Spring : All running

**4.Operational status**

Hours of operation	6 hours/day	Connections (active only)	
Water produced	49,650 m <sup>3</sup> /year	Social	31
Water sold	26,813 m <sup>3</sup> /year	Public Hydrant	0
Water sold	20 m <sup>3</sup> /connection/month	Domestic	1,463
Unaccounted for water	22,588 m <sup>3</sup> /year	Government	0
Unaccounted for water	45 %	Total	1,503 connections

**5.Maintenance status**

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

**6.Situation to take over maintenance agency (PDAM)**

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Java Barat	PDAM	Bogor	SPAM IKK	Palasari	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		30
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	6	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Spring, River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Gravity, Pumped	Operator	8	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	30 + 20	Total	8	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	3	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	2	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	Concrete	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	7 times/month	
Working condition	Poor	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Well	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	D3 x H3	Working condition	Not used now	Type	Concrete, On ground	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	300	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	36	pH meter	1	Diameter (mm), Quantity	200-300, GI	
Annual Ave Turbidity	35	<b>2.6 Rapid sand filter</b>		Total length (m)	120	
Annual pH (Max, Min)	7.14	Number of filters	12	Distribution pipe		
Annual alkalinity (Max, Min)	Not Available	Total surface area (m2)		Diameter (mm), Quantity	50-250, PVC, HDPE	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	11,822	
Available or not	Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	1,503	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	-	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	6	Number of reservoirs	1	Number of staff	2	
Daily production (m3/day)		Total volume (m3)	300	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	PAC	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centrifugal, 3	Repaired leakages		
		Capacity (L/s)	10	Replacing malfunction water meter		
		Diameter (mm)	30	Estimated UFW (%)	37%	

Technical Data of SPAM IKK

Province	Central Java	PDAM	Grobogan	SPAM IKK	Toroh	2005
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<b>1.Population and Area (Existing area included)</b>	A-3
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Total population	116,145 person	Total household	34,531 household
Service area population	21,777 person	Service area household	6,475 household
Population served	3,155 person	Household served	655 household
Coverage	14.5 %	Coverage	10.1 %
Area	118.31 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations	Construction organizations
Intake, WTP	Intake, WTP
Distribution	Distribution

<b>3.Operational status of projects facilities</b>
--

Operation status	All running,
Cause some or all of the running yet	

<b>4.Operational status</b>
-----------------------------

Hours of operation	12 hours/day	Connections (active only)	
Water produced	107,416 m <sup>3</sup> /year	Social	15 Commercial 2
Water sold	97,537 m <sup>3</sup> /year	Public Hydrant	Industry
Water sold	13 m <sup>3</sup> /connection/month	Domestic	631 Special
Unaccounted for water	9,879 m <sup>3</sup> /year	Government	7 -
Unaccounted for water	9.20 %	Total	655 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	
Actual existence of repair	Yes, No
Distributions	
Working conditions	
Actual existence of repair	Yes, No

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)	Distributions (from Dinas PU)
Drawings and Maintenance plans	Drawings and Maintenance plans
Education and training for maintenance	Education and training for maintenance

Technical Data of SPAM IKK

Province		Central Java		PDAM		Grobogan		SPAM IKK		Toroh		2005	
<b>1. Water Source</b>				Chemical for disinfection		Bleaching powder		Head (m)		40			
<b>1.1 Location</b>				Power source		Commercial grid		<b>2.9 Sludge management facilities</b>					
Distance from core area (km)		10		Plant management staff				Back washed water regulation tank					
<b>1.2 Water Source &amp; capacity</b>				Administration		3		Number of tank, Capacity (m3)		<i>Not Applied</i>			
Type		Irrigation canal		Engineer				Sludge regulating tank					
Gravity / Pumped		Gravity		Operator		1		Number of tank, Capacity (m3)		<i>Not Applied</i>			
Capacity (L/s)		10		Total		4		Sludge drying facilities type					
<b>1.3 Water Intake Structure</b>				Operation shifts per day				Mechanical dewatering		<i>Not Applied</i>			
Weir				<b>2.2 Plain sedimentation tank</b>				Treating capacity (m3/hour)		<i>Not Applied</i>			
Type of structure				Number of the tanks		<i>Not Applied</i>		Sludge drying beds					
Type of screen				Total surface area		<i>Not Applied</i>		Number of beds		<i>Not Applied</i>			
Type of Grit chamber				Total tank volume		<i>Not Applied</i>		Total volume (m3)		<i>Not Applied</i>			
Working condition				<b>2.3 Slow sand filter</b>				Dry cake final disposal place		<i>Not Applied</i>			
Spring Broncaptering				Number of filters		1		<b>2.10 Operation and maintenance</b>					
Type of structure				Total surface area		25		Power fail frequency		3 times/month			
Working condition				Filtration rate				Typical mechanical trouble		Pump damage			
Well				<b>2.4 Coagulation facilities</b>				Typical electrical trouble					
Type				Mixing methods		<i>Not Applied</i>		<b>3. Distribution system</b>					
Diameter (mm)				Type of mixer		<i>Not Applied</i>		<b>3.1 Distribution reservoir</b>					
Depth(m)				Working condition		<i>Not Applied</i>		Type		concrete			
Discharge rate(L/s)				<b>2.5 Water quality test equipments</b>				Capacity (L/s)					
SWL / PWL(m)				Jar tester		Not Available		<b>3.2 Pipeline</b>					
Operation hours				Turbidity meter		Not Available		Transmission pipe					
Type of pump				pH meter		Not Available		Diameter (mm), Quantity					
Working condition				<b>2.6 Rapid sand filter</b>				Total length (m)					
<b>1.4 Water Quality Data</b>				Number of filters		<i>Not Applied</i>		Distribution pipe					
Annual Max Turbidity		1000		Total surface area (m2)		<i>Not Applied</i>		Diameter (mm), Quantity		50-150, PVC			
Annual Ave Turbidity		400		Filtration rate (m3/m2/day)		<i>Not Applied</i>		Total length (m)		29,449			
Annual Max pH				Backwashing type		<i>Not Applied</i>		Water Meter					
Annual Min pH				Auxiliary backwash system		<i>Not Applied</i>		Installation water meter		No Data			
Water quality analysis data				Type of valves and gates		<i>Not Applied</i>		Percentage of malfunction meter (		No Data			
Available or not		Not Available		<b>2.7 Clear water reservoir</b>				<b>3.3 Water leakage repair</b>					
<b>2. Treatment Systems</b>				Number of reservoirs		1		Number of staff		1			
<b>2.1 Basic Information</b>				Total volume (m3)		250		Available Repair tools		Sufficient			
Design capacity (L/s)		10		Retention time				Availability of distribution map		Yes			
Daily operation hours (hrs)		9		<b>2.8 Distribution pump</b>				Availability of leakage repair records		No			
Daily production (m3/day)		6912-8640		Type and number		Centrifugal, 2		Repaired leakages		365/year			
Type of water treatment		Slow sand filter		Capacity (L/s)		10		Replacing malfunction water meter		36-48/year			
Type of coagulant being used		-		Diameter (mm)		100		Estimated UFW (%)					

Technical Data of SPAM IKK

Province	Central Java	PDAM	Grobogan	SPAM IKK	Gubug	2007
<b>1.Population and Area</b>						B-18
Total population	75,391 person	Total household	22,144 household			
Service area population	8,851 person	Service area household	2,853 household			
Population served	225 person	Household served	45 household			
Coverage	2.5 %	Coverage	1.6 %			
Area	71.1 km <sup>2</sup>					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Pusat	Intake, WTP		Satker Pusat		
Distribution	PDAM	Distribution		PDAM		
<b>3.Operational status of projects facilities</b>						
Operation status		Some running				
Cause some or all of the running yet		[Delay of distribution pipe construction due to local government budget is priority used for debt payment of PDAM]				
<b>4.Operational status</b>						
Hours of operation	4 hours/day	Connections (active only)				
Water produced	3,480 m <sup>3</sup> /year	Social	0	Commercial	0	
Water sold	3,420 m <sup>3</sup> /year	Public Hydrant	0	Industry	0	
Water sold	m <sup>3</sup> /connection/month	Domestic	45	Special	0	
Unaccounted for water	60 m <sup>3</sup> /year	Government	0	-		
Unaccounted for water	2 %	Total	45 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Good				
Actual existence of repair		Yes				
Distributions						
Working conditions		Good				
Actual existence of repair		Yes				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No			
Education and training for maintenance	Yes (by WTP supplier)	Education and training for maintenance	No			

Technical Data of SPAM IKK

Province	Central Java	PDAM	Grobogan	SPAM IKK	Gubug	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		60
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	33	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Canal	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	5	Total	1	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
<b>Weir</b>		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	rubber joint at pump	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Direct tapping	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	-	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	-	Working condition	Not used now	Type	Concrete, On ground	
Type of pump	Centrifugal	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	150	
Working condition	Good	Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Annual Max Turbidity	Not Available	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity	100, GI	
Annual Ave Turbidity	Not Available	<b>2.6 Rapid sand filter</b>		Total length (m)	10	
Annual pH (Max, Min)	Not Available	Number of filters	4	Distribution pipe		
Annual alkalinity (Max, Mi)	Not Available	Total surface area (m2)	8	Diameter (mm), Quantity	50-150, PVC	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	11,000	
Available or not	Not Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	-	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	-	
Design capacity (L/s)	5	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	4	Number of reservoirs	1	Number of staff	1	
Daily production (m3/day)	290	Total volume (m3)	150	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	PAC, AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centrifugal, 2	Repaired leakages	36/yaer	
		Capacity (L/s)	2	Replacing malfunction water meter	-	
		Diameter (mm)	100	Estimated UFW (%)	2	



Technical Data of SPAM IKK

Province	Central Java	PDAM	Kendal	SPAM IKK	Boja	2005
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<b>1.Population and Area (Existing area included)</b>	A-4
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Total population	67,410 person	Total household	16,448 household
Service area population	43,548 person	Service area household	10,130 household
Population served	11,045 person	Household served	2,209 household
Coverage	25.4 %	Coverage	21.8 %
Area	64.1 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations	Construction organizations
Intake, WTP	Intake, WTP
Distribution	Distribution

<b>3.Operational status of projects facilities</b>
--

Operation status	All running,
Cause some or all of the running yet	

<b>4.Operational status</b>	(Water production in IKK Boja including 3 systems)
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Hours of operation	8 hours/day	Connections (active only)	
Water produced	596,165 m <sup>3</sup> /year	Social	60 Commercial 26
Water sold	363,946 m <sup>3</sup> /year	Public Hydrant	Industry
Water sold	14.41 m <sup>3</sup> /connection/month	Domestic	2,107 Special
Unaccounted for water	232,219 m <sup>3</sup> /year	Government	16 -
Unaccounted for water	38.95 %	Total	2,209 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	
Actual existence of repair	Yes, No
Distributions	
Working conditions	
Actual existence of repair	Yes, No

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)	Distributions (from Dinas PU)
Drawings and Maintenance plans	Drawings and Maintenance plans
Education and training for maintenance	Education and training for maintenance

Technical Data of SPAM IKK

Province	Central Java	PDAM	Kendal	SPAM IKK	Boja	2005
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		50
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	28	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Deep well	Engineer	3	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10	Total	6	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	<i>Not Applied</i>	
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area	<i>Not Applied</i>	Power fail frequency	3 times/month	
Working condition	<i>Not Applied</i>	Filtration rate	<i>Not Applied</i>	Typical mechanical trouble	fire at pump	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	unstable travo	
Type	Deep well	Mixing methods	<i>Not Applied</i>	<b>3. Distribution system</b>		
Diameter (mm)	200	Type of mixer	<i>Not Applied</i>	<b>3.1 Distribution reservoir</b>		
Depth(m)	160	Working condition	<i>Not Applied</i>	Type	concrete	
Discharge rate(L/s)	10	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	144	
SWL / PWL(m)	16.3/37.6	Jar tester		<b>3.2 Pipeline</b>		
Operation hours	8	Turbidity meter	Not Available	Transmission pipe		
Type of pump	Submersible	pH meter	analyzed at out of PDAM	Diameter (mm), Quantity	-	
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)	-	
<b>1.4 Water Quality Data</b>		Number of filters	<i>Not Applied</i>	Distribution pipe		
Annual Max Turbidity		Total surface area (m2)	<i>Not Applied</i>	Diameter (mm), Quantity	25-150, PVC	
Annual Ave Turbidity	0.016	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Total length (m)	38,808	
Annual Max pH	8.4	Backwashing type	<i>Not Applied</i>	Water Meter		
Annual Min pH		Auxiliary backwash system	<i>Not Applied</i>	Installation water meter		
Water quality analysis data		Type of valves and gates	<i>Not Applied</i>	Percentage of malfunction meter (%)		
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	<i>Not Applied</i>	Number of staff	3	
<b>2.1 Basic Information</b>		Total volume (m3)	<i>Not Applied</i>	Available Repair tools	Sufficient	
Design capacity (L/s)	9.5 (+8.5 +8.5)	Retention time	<i>Not Applied</i>	Availability of distribution map	Yes	
Daily operation hours (hrs)	8	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)	274	Type and number	Centrifugal, 2	Repaired leakages	12-48/year	
Type of water treatment	-	Capacity (L/s)	10	Replacing malfunction water meter	120/year	
Type of coagulant being used	-	Diameter (mm)	100	Estimated UFW (%)	38	

Technical Data of SPAM IKK

Province	Central Java	PDAM	Boyolali	SPAM IKK	Sawit	2005
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<b>1.Population and Area</b>	B-17
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Total population	33,047 person	Total household	7,815 household
Service area population	11,194 person	Service area household	2,589 household
Population served	615 person	Household served	123 household
Coverage	5.5 %	Coverage	4.8 %
Area	17.2 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Satker Province	Intake, WTP	Satker Province
Distribution	PDAM	Distribution	PDAM

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[Delay of distribution pipe construction due to lack budget of local government]

<b>4.Operational status</b>
-----------------------------

Hours of operation	3 hours/day	Connections (active only)			
Water produced	39,420 m <sup>3</sup> /year	Social	5	Commercial	0
Water sold	29,412 m <sup>3</sup> /year	Public Hydrant	0	Industry	0
Water sold	19 m <sup>3</sup> /connection/month	Domestic	123	Special	0
Unaccounted for water	10,008 m <sup>3</sup> /year	Government	1	-	
Unaccounted for water	25.4 %	Total	129 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Yes (Drawing)	Drawings and Maintenance plans	No
Education and training for maintenance	Yes	Education and training for maintenance	Yes

Technical Data of SPAM IKK

Province	Central Java	PDAM	Boyolali	SPAM IKK	Sawit	2005
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>	Head (m)		40
<b>1.1 Location</b>		Power source	<i>Not Applied</i>	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	16	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)		<i>Not Applied</i>
Type	Groundwater	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	1	Number of tank, Capacity (m3)		<i>Not Applied</i>
Capacity (L/s)	10	Total	3	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		<i>Not Applied</i>
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds		<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		<i>Not Applied</i>
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		<i>Not Applied</i>
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		pump motor
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type	Deep well	Mixing methods	<i>Not Applied</i>	<b>3. Distribution system</b>		
Diameter (mm)	150	Type of mixer	<i>Not Applied</i>	<b>3.1 Distribution reservoir</b>		
Depth(m)	130	Working condition	<i>Not Applied</i>	Type		<i>Not Applied</i>
Discharge rate(L/s)	10	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		<i>Not Applied</i>
SWL / PWL(m)	50	Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
Operation hours	12	Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Type of pump	Submersible	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity		-
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)		-
<b>1.4 Water Quality Data</b>		Number of filters	<i>Not Applied</i>	Distribution pipe		
Annual Max Turbidity	Not Available	Total surface area (m2)	<i>Not Applied</i>	Diameter (mm), Quantity		40-150, PVC
Annual Ave Turbidity	Not Available	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Total length (m)		7,972
Annual pH (Max, Min)	7	Backwashing type	<i>Not Applied</i>	Water Meter		
Annual alkalinity (Max, Min)	Not Available	Auxiliary backwash system	<i>Not Applied</i>	Installation water meter		-
Water quality analysis data		Type of valves and gates	<i>Not Applied</i>	Percentage of malfunction meter (		-
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	<i>Not Applied</i>	Number of staff		2
<b>2.1 Basic Information</b>		Total volume (m3)	<i>Not Applied</i>	Available Repair tools		Sufficient
Design capacity (L/s)	<i>Not Applied</i>	Retention time	<i>Not Applied</i>	Availability of distribution map		Yes
Daily operation hours (hrs)	<i>Not Applied</i>	<b>2.8 Distribution pump</b>		Availability of leakage repair records		Yes
Daily production (m3/day)	<i>Not Applied</i>	Type and number	Submersible, 1	Repaired leakages		144 /years
Type of water treatment	<i>Not Applied</i>	Capacity (L/s)	10	Replacing malfunction water meter		Not any
Type of coagulant being used	<i>Not Applied</i>	Diameter (mm)	150	Estimated UFW (%)		25.4

Technical Data of SPAM IKK

Province	Central Java	PDAM	Rembang	SPAM IKK	Sulang	2007
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<b>1.Population and Area</b>	B-19
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Total population	38,840 person	Total household	9,640 household
Service area population	12,813 person	Service area household	3,199 household
Population served	2,970 person	Household served	594 household
Coverage	23.2 %	Coverage	18.6 %
Area	84.6 km <sup>2</sup>		

**2.Design and construction organizations**

Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	PDAM	Distribution	PDAM

**3.Operational status of projects facilities**

Operation status	Some running
Cause some or all of the running yet	[In dry season, raw water is not available.]
	[At night time, booster pump is not operation.]

**4.Operational status**

Hours of operation	16 hours/day	Connections (active only)			
Water produced	84,497 m <sup>3</sup> /year : SPAM IKK only	Social	29	Commercial	24
Water sold	150,521 m <sup>3</sup> /year : including 3 existing system	Public Hydrant	0	Industry	0
Water sold	18 m <sup>3</sup> /connection/month	Domestic	594	Special	0
Unaccounted for water	m <sup>3</sup> /year	Government	5	-	
Unaccounted for water	35 %	Total	652 connections		

**5.Maintenance status**

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

**6.Situation to take over maintenance agency (PDAM)**

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	Yes (by WTP supplier)	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Central Java	PDAM	Rembang	SPAM IKK	Sulang	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		by Gravity
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	10	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Small storage	Engineer	2	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	3	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10 (+3+3+2)	Total	7	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	1	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	8	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	2 times/month	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	l=1m, w=1m, h=2m	Working condition	Not used now	Type	FRP, On ground	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	22	pH meter	1	Diameter (mm), Quantity	150, PVC	
Annual Ave Turbidity	5	<b>2.6 Rapid sand filter</b>		Total length (m)	1,500	
Annual pH (Max, Min)	6.5	Number of filters	4	Distribution pipe		
Annual alkalinity (Max, Min)	Not Available	Total surface area (m2)	3	Diameter (mm), Quantity	25-150, GI, PVC	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	38,350	
Available or not	Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	-	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	-	
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	16	Number of reservoirs	1	Number of staff	2	
Daily production (m3/day)	231	Total volume (m3)	80	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	PAC, AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	by Gravity	Repaired leakages	120/yaer	
		Capacity (L/s)	by Gravity	Replacing malfunction water meter	120-240/yaer	
		Diameter (mm)	by Gravity	Estimated UFW (%)	35	

Technical Data of SPAM IKK

Province	East Java	PDAM	Tuban	SPAM IKK	Bancar	2006
<b>1.Population and Area</b>						B-20
Total population	55,506 person	Total household	14,923 household			
Service area population	12,817 person	Service area household	3,608 household			
Population served	1,915 person	Household served	383 household			
Coverage	14.9 %	Coverage	10.6 %			
Area	112.4 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Province		Intake, WTP	Satker Province		
Distribution	Cipta Karya Kabupaten		Distribution	Dinas Cipta Karya Kabupaten		
<b>3.Operational status of projects facilities</b>						
Operation stas	Not running now					
Cause some or all of the running yet	[ Water does not exist in well from the beginning for SPAM IKK Bancar construction. ]					
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections (active only)				
Water produced	97,300 m3/year	Social	8	Commercial	5	
Water sold	62,500 m3/year	Public Hydrant	1	Industry	0	
Water sold	18 m3/connection/month	Domestic	383	Special	0	
Unaccounted for water	34,800 m3/year	Government	0	-		
Unaccounted for water	35.0 %	Total	397 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Not operation now					
Actual existence of repair	Not operation now					
Distributions						
Working conditions	Not operation now					
Actual existence of repair	Not operation now					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans	Yes		
Education and training for maintenance	No		Education and training for maintenance	No		

Technical Data of SPAM IKK

Province	East Java	PDAM	Tuban	SPAM IKK	Bancar	2006
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>		Head (m)	80
<b>1.1 Location</b>		Power source	Diesel E.generator		<b>2.9 Sludge management facilities</b>	
Distance from core area (km)	6	Plant management staff			Back washed water regulation tank	
<b>1.2 Water Source &amp; capacity</b>		Administration	2		Number of tank, Capacity (m3)	<i>Not Applied</i>
Type	Deep well	Engineer	0		Sludge regulating tank	
Gravity / Pumped	<i>Not Applied</i>	Operator	2		Number of tank, Capacity (m3)	<i>Not Applied</i>
Capacity (L/s)	<i>Not Applied</i>	Total	4		Sludge drying facilities type	
<b>1.3 Water Intake Structure</b>		Operation shifts per day			Mechanical dewatering	
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>		Sludge drying beds	
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Number of beds	<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>		Total volume (m3)	<i>Not Applied</i>
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>		<b>2.10 Operation and maintenance</b>	
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Power fail frequency	2 times/month
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>		Typical mechanical trouble	broken motor pump
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type	Deep well	Mixing methods	<i>Not Applied</i>		<b>3. Distribution system</b>	
Diameter (mm)	250	Type of mixer	<i>Not Applied</i>		<b>3.1 Distribution reservoir</b>	
Depth(m)	110	Working condition	<i>Not Applied</i>		Type	<i>Not Applied</i>
Discharge rate(L/s)	5	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	<i>Not Applied</i>	
SWL / PWL(m)	80	Jar tester	<i>Not Applied</i>		<b>3.2 Pipeline</b>	
Operation hours	24	Turbidity meter	<i>Not Applied</i>		Transmission pipe	
Type of pump	Submersible, 1	pH meter	<i>Not Applied</i>		Diameter (mm), Quantity	<i>Not Applied</i>
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)	<i>Not Applied</i>	
<b>1.4 Water Quality Data</b>		Number of filters	<i>Not Applied</i>		Distribution pipe	
Annual Max Turbidity	Not Available	Total surface area (m2)	<i>Not Applied</i>		Diameter (mm), Quantity	25-150, PVC
Annual Ave Turbidity	Not Available	Filtration rate (m3/m2/day)	<i>Not Applied</i>		Total length (m)	20,100
Annual pH (Max, Min)	Not Available	Backwashing type	<i>Not Applied</i>		Water Meter	
Annual alkalinity (Max, Min)	Not Available	Auxiliary backwash system	<i>Not Applied</i>		Installation water meter	-
Water quality analysis data		Type of valves and gates	<i>Not Applied</i>		Percentage of malfunction meter (%)	-
Available or not	Available (bacteriology)	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	<i>Not Applied</i>		Number of staff	3
<b>2.1 Basic Information</b>		Total volume (m3)	<i>Not Applied</i>		Available Repair tools	Sufficient
Design capacity (L/s)	5	Retention time	<i>Not Applied</i>		Availability of distribution map	Yes
Daily operation hours (hrs)	24	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)		Type and number	Sebmersible, 1		Repaired leakages	600 /years
Type of water treatment	<i>Not Applied</i>	Capacity (L/s)	5		Replacing malfunction water meter	Not any
Type of coagulant being used	<i>Not Applied</i>	Diameter (mm)	250		Estimated UFW (%)	35.0



Technical Data of SPAM IKK

Province	Java Timur	PDAM	Ponorogo	SPAM IKK	Jenangan	2006
<b>1.Population and Area</b>						B-21
Total population	59,677 person	Total household	18,031 household			
Service area population	13,231 person	Service area household	4,104 household			
Population served	800 person	Household served	200 household			
Coverage	6.0 %	Coverage	4.9 %			
Area	59.5 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Province		Intake, WTP	Satker Province		
Distribution	Satker Province		Distribution	Satker Province		
<b>3.Operational status of projects facilities</b>						
Operation status	Some running					
Cause some or all of the running yet	[Due to the limitation of electricity supply from PLN, PDAM is only serving 15 hours/day]					
<b>4.Operational status</b>						
Hours of operation	15 hours/day (including existing system)	Connections (active only)				
Water produced	492,296 m3/year (including existing system)	Social	5	Commercial	0	
Water sold	364,314 m3/year (including existing system)	Public Hydrant	1	Industry	0	
Water sold	16 m3/connection/month (including existing system)	Domestic	193	Special	0	
Unaccounted for water	127,982 m3/year (including existing system)	Government	1	-		
Unaccounted for water	26.0 % (including existing system)	Total	200 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	-					
Distributions						
Working conditions	Good					
Actual existence of repair	-					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans	No		
Education and training for maintenance	Yes		Education and training for maintenance	No		

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Ponorogo	SPAM IKK	Jenangan	2006
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>	Head (m)		<i>Not Applied</i>
<b>1.1 Location</b>		Power source	Commecial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	1	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Deep well	Engineer	4	Sludge regulating tank		
Gravity / Pumped	<i>Not Applied</i>	Operator	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10	Total	6	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	[D] Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		1 times/month
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		Pipe leakage
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type	Deep well	Mixing methods	<i>Not Applied</i>	<b>3. Distribution system</b>		
Diameter (mm)	200	Type of mixer	<i>Not Applied</i>	<b>3.1 Distribution reservoir</b>		
Depth(m)	100	Working condition	<i>Not Applied</i>	Type		<i>Not Applied</i>
Discharge rate(L/s)	10	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		<i>Not Applied</i>
SWL / PWL(m)	54 and 70	Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
Operation hours	15	Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Type of pump	Submersible, 1	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity		<i>Not Applied</i>
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)		<i>Not Applied</i>
<b>1.4 Water Quality Data</b>		Number of filters	<i>Not Applied</i>	Distribution pipe		
Annual Max Turbidity	Not Available	Total surface area (m2)	<i>Not Applied</i>	Diameter (mm), Quantity		<i>Not Applied</i>
Annual Ave Turbidity	Not Available	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Total length (m)		<i>Not Applied</i>
Annual pH (Max, Min)	Not Available	Backwashing type	<i>Not Applied</i>	Water Meter		
Annual alkalinity (Max, Mi	Not Available	Auxiliary backwash system	<i>Not Applied</i>	Installation water meter		<i>Not Applied</i>
Water quality analysis data		Type of valves and gates	<i>Not Applied</i>	Percentage of malfunction meter (		<i>Not Applied</i>
Available or not	Not Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	<i>Not Applied</i>	Number of staff		4
<b>2.1 Basic Information</b>		Total volume (m3)	<i>Not Applied</i>	Available Repair tools		Sufficient
Design capacity (L/s)	10	Retention time	<i>Not Applied</i>	Availability of distribution map		Yes
Daily operation hours (hrs)	15	<b>2.8 Distribution pump</b>		Availability of leakage repair records		Yes
Daily production (m3/day)		Type and number	<i>Not Applied</i>	Repaired leakages		120 /years
Type of water treatment	<i>Not Applied</i>	Capacity (L/s)	<i>Not Applied</i>	Replacing malfunction water meter		10 /years
Type of coagulant being used	<i>Not Applied</i>	Diameter (mm)	<i>Not Applied</i>	Estimated UFW (%)		26.0

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Madiun	SPAM IKK	Gemarang	2006
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<b>1.Population and Area</b>	B-22
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Total population	32,486 person	Total household	8,122 household
Service area population	25,272 person	Service area household	6,318 household
Population served	9,098 person	Household served	435 household
Coverage	36.0 %	Coverage	6.9 %
Area	102.0 km2		

<b>2.Design and construction organizations</b>
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Design organizations		Construction organizations	
Intake, WTP	Satker Province	Intake, WTP	Satker Province
Distribution	Satker Province	Distribution	Satker Province

<b>3.Operational status of projects facilities</b>
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Operation status	Some running
Cause some or all of the running yet	[Due to the total of house connections is till limited, then PDAM has set up the panel to operate the distribution pipe based on the requirements. If the pressure is more than "4", then it will automatically stop.]

<b>4.Operational status</b>
-----------------------------

Hours of operation	16 hours/day (including existing system)	Connections (active only)			
Water produced	542,862 m3/year (including existing system)	Social	2	Commercial	0
Water sold	393,667 m3/year (including existing system)	Public Hydrant	0	Industry	0
Water sold	m3/connection/month (including existing system)	Domestic	433	Special	0
Unaccounted for water	149,195 m3/year (including existing system)	Government	0	-	
Unaccounted for water	27.0 % (including existing system)	Total	435 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	-
Distributions	
Working conditions	Good
Actual existence of repair	-

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Yes	Drawings and Maintenance plans	Yes
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Madiun	SPAM IKK	Gemarang	2006
<b>1. Water Source</b>		Chemical for disinfection	<i>Not Applied</i>		Head (m)	80
<b>1.1 Location</b>		Power source	Commecial grid		<b>2.9 Sludge management facilities</b>	
Distance from core area (km)	2	Plant management staff			Back washed water regulation tank	
<b>1.2 Water Source &amp; capacity</b>		Administration	2		Number of tank, Capacity (m3)	<i>Not Applied</i>
Type	Deep well	Engineer	2		Sludge regulating tank	
Gravity / Pumped	<i>Not Applied</i>	Operator	0		Number of tank, Capacity (m3)	<i>Not Applied</i>
Capacity (L/s)	10	Total	4		Sludge drying facilities type	
<b>1.3 Water Intake Structure</b>		Operation shifts per day			Mechanical dewatering	
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>		Sludge drying beds	
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Number of beds	<i>Not Applied</i>
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>		Total volume (m3)	<i>Not Applied</i>
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>		<b>2.10 Operation and maintenance</b>	
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>		Power fail frequency	1 times/month
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>		Typical mechanical trouble	Pipe leakage
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type	Deep well	Mixing methods	<i>Not Applied</i>		<b>3. Distribution system</b>	
Diameter (mm)	150	Type of mixer	<i>Not Applied</i>		<b>3.1 Distribution reservoir</b>	
Depth(m)	112	Working condition	<i>Not Applied</i>		Type	<i>Not Applied</i>
Discharge rate(L/s)	10	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	<i>Not Applied</i>	
SWL / PWL(m)	48 and 60	Jar tester	<i>Not Applied</i>		<b>3.2 Pipeline</b>	
Operation hours	16	Turbidity meter	<i>Not Applied</i>		Transmission pipe	
Type of pump	Submersible, 1	pH meter	<i>Not Applied</i>		Diameter (mm), Quantity	<i>Not Applied</i>
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)	<i>Not Applied</i>	
<b>1.4 Water Quality Data</b>		Number of filters	<i>Not Applied</i>		Distribution pipe	
Annual Max Turbidity	Not Available	Total surface area (m2)	<i>Not Applied</i>		Diameter (mm), Quantity	150, PVC
Annual Ave Turbidity	4	Filtration rate (m3/m2/day)	<i>Not Applied</i>		Total length (m)	1,266
Annual pH (Max, Min)	7	Backwashing type	<i>Not Applied</i>		Water Meter	
Annual alkalinity (Max, Mi	Not Available	Auxiliary backwash system	<i>Not Applied</i>		Installation water meter	435
Water quality analysis data		Type of valves and gates	<i>Not Applied</i>		Percentage of malfunction meter (	-
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	<i>Not Applied</i>		Number of staff	4
<b>2.1 Basic Information</b>		Total volume (m3)	<i>Not Applied</i>		Available Repair tools	Sufficient
Design capacity (L/s)	10	Retention time	<i>Not Applied</i>		Availability of distribution map	Yes
Daily operation hours (hrs)	16	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)		Type and number	Sebmersible, 1		Repaired leakages	120 /years
Type of water treatment	<i>Not Applied</i>	Capacity (L/s)	10		Replacing malfunction water meter	10 /years
Type of coagulant being used	<i>Not Applied</i>	Diameter (mm)			Estimated UFW (%)	27.0

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Bangkalan	SPAM IKK	Burneh	2007
<b>1.Population and Area</b>						B-23
Total population	58,822 person	Total household	10,292 household			
Service area population	21,193 person	Service area household	3,213 household			
Population served	1,880 person	Household served	376 household			
Coverage	3.2 %	Coverage	3.7 %			
Area	62.4 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Pusat		Intake, WTP	Satker Pusat		
Distribution	Developer at Tanjung housing area		Distribution	Developer at Tanjung housing area		
<b>3.Operational status of projects facilities</b>						
Operation status		Some running				
Cause some or all of the running yet		[Delay of distribution pipe construction]				
<b>4.Operational status</b>						
Hours of operation	5 hours/day	Connections				
Water produced	65,915 m3/year	Social	0	Commercial	0	
Water sold	44,163 m3/year	Public Hydrant	0	Industry	0	
Water sold	11 m3/connection/month	Domestic	376	Special	0	
Unaccounted for water	21,752 m3/year	Government	0	-		
Unaccounted for water	33 %	Total	376 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Good				
Actual existence of repair		Yes				
Distributions						
Working conditions		Good				
Actual existence of repair		Yes				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No	Drawings and Maintenance plans				No
Education and training for maintenance	Yes (by supplier)	Education and training for maintenance				No

Technical Data of SPAM IKK

Province		Java Timur		PDAM		Bangkalan		SPAM IKK		Burneh		2007	
<b>1. Water Source</b>				Chemical for disinfection				Bleaching powder					
<b>1.1 Location</b>				Power source				Commercial grid					
Distance from core area (km)		4		Plant management staff									
<b>1.2 Water Source &amp; capacity</b>				Administration				2					
Type		Tangkil River		Engineer				0					
Gravity / Pumped		Pumped		Operator				2					
Capacity (L/s)		20		Total				4					
<b>1.3 Water Intake Structure</b>				Operation shifts per day									
Weir				<b>2.2 Plain sedimentation tank</b>									
Type of structure		Not Applied		Number of the tanks		Not Applied							
Type of screen		Not Applied		Total surface area (m <sup>2</sup> )		Not Applied							
Type of Grit chamber		Not Applied		Total tank volume (m <sup>3</sup> )		Not Applied							
Working condition		Not Applied		<b>2.3 Slow sand filter</b>									
Spring Broncapturing				Number of filters		Not Applied							
Type of structure		Not Applied		Total surface area (m <sup>2</sup> )		Not Applied							
Working condition		Not Applied		Filtration rate (m <sup>3</sup> /m <sup>2</sup> /day)		Not Applied							
Raw water Collection				<b>2.4 Coagulation facilities</b>									
Type of collection		Basin		Mixing methods		Rapid mixing, Slow mixing							
Type of structure		Concrete		Type of mixer		Hydraulic							
Size (m)		l= 1, w= 1, h=2		Working condition		Good							
Type and number of pump		Submersible, 2		<b>2.5 Water quality test equipments</b>									
Working condition		Good		Jar tester		1							
				Turbidity meter		1							
				pH meter		1							
<b>1.4 Water Quality Data</b>				<b>2.6 Rapid sand filter</b>									
Annual Max Turbidity		200		Number of filters		4							
Annual Ave Turbidity		15		Total surface area (m <sup>2</sup> )		2							
Annual pH (Max, Min)		7		Filtration rate (m <sup>3</sup> /m <sup>2</sup> /day)									
Annual alkalinity (Max, Min)		Not Available		Backwashing type		Self washing							
Water quality analysis data				Auxiliary backwash system		Water only							
Available or not		Available		Type of valves and gates		Manual							
<b>2. Treatment Systems</b>				<b>2.7 Clear water reservoir</b>									
<b>2.1 Basic Information</b>				Number of reservoirs		1							
Design capacity (L/s)		20		Total volume (m <sup>3</sup> )		100							
Daily operation hours (hrs)		5		Retention time									
Daily production (m <sup>3</sup> /day)		288		<b>2.8 Distribution pump</b>									
Type of water treatment		Rapid sand filter		Type and number		Centrifugal, 2							
Type of coagulant being used		PAC, AS		Capacity (L/s)		20							
				Diameter (mm)		100							
				Head (m)				40					
				<b>2.9 Sludge management facilities</b>									
Back washed water regulation tank				Number of tank, Capacity (m <sup>3</sup> )		Not Applied							
Sludge regulating tank				Number of tank, Capacity (m <sup>3</sup> )		Not Applied							
Sludge drying facilities type				Mechanical dewatering									
				Treating capacity (m <sup>3</sup> /hour)		Not Applied							
				Sludge drying beds									
				Number of beds		1							
				Total volume (m <sup>3</sup> )		23							
				Dry cake final disposal place									
				<b>2.10 Operation and maintenance</b>									
Power fail frequency		3 times/month		Typical mechanical trouble									
Typical electrical trouble				<b>3. Distribution system</b>									
<b>3.1 Distribution reservoir</b>				Type		FRP, On ground							
Capacity (m <sup>3</sup> )		100		<b>3.2 Pipeline</b>									
Transmission pipe				Diameter (mm), Quantity		Not Applied							
				Total length (m)		Not Applied							
Distribution pipe				Diameter (mm), Quantity		50-150, PVC							
				Total length (m)		9,810							
Water Meter				Installation water meter		-							
				Percentage of malfunction meter (%)		-							
				<b>3.3 Water leakage repair</b>									
Number of staff		3		Available Repair tools		Sufficient							
Availability of distribution map		No		Availability of leakage repair records		Yes							
Repaired leakages		60 /year		Replacing malfunction water meter		Not any							
Estimated UFW (%)		33%											

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Kediri	SPAM IKK	Kepung	2008
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<b>1.Population and Area</b>	B-24
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Total population	76,862 person	Total household	18,262 household
Service area population	36,565 person	Service area household	9,054 household
Population served	2,416 person	Household served	604 household
Coverage	6.6 %	Coverage	6.7 %
Area	105.7 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	Province Satker	Distribution	Province Satker

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[Delay of distribution pipe construction]

<b>4.Operational status</b>
-----------------------------

Hours of operation	1.4 hours/day (2 days per week for 5 hours)	Connections	
Water produced	No Data m3/year	Social	11
Water sold	No Data m3/year	Public Hydrant	3
Water sold	No Data m3/connection/month	Domestic	586
Unaccounted for water	No Data m3/year	Government	2
Unaccounted for water	No Data %	Total	604 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	Manual
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Yes	Drawings and Maintenance plans	Yes
Education and training for maintenance	Yes	Education and training for maintenance	Yes

Technical Data of SPAM IKK

Province	Java Timur	PDAM	Kediri	SPAM IKK	Kepung	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		210
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	6	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Canal	Engineer	3	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	20	Total	6	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	Not Applied	Number of the tanks	1	Sludge drying beds		
Type of screen	Not Applied	Total surface area (m2)	18.2	Number of beds	2	
Type of Grit chamber	Not Applied	Total tank volume (m3)	64	Total volume (m3)	120	
Working condition	Not Applied	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	Open land	
Spring Broncapturing		Number of filters	Not Applied	<b>2.10 Operation and maintenance</b>		
Type of structure	Not Applied	Total surface area (m2)	Not Applied	Power fail frequency		
Working condition	Not Applied	Filtration rate (m3/m2/day)	Not Applied	Typical mechanical trouble		
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	l= 4, w= 2, h= 3	Working condition	Good	Type	Concrete, On ground	
Type and number of pump	Submersible, 2	<b>2.5 Water quality test equipments</b>		Capacity (m3)		
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	Not Available	pH meter	1	Diameter (mm), Quantity	200, GI, HDPE	
Annual Ave Turbidity	Not Available	<b>2.6 Rapid sand filter</b>		Total length (m)	1,745	
Annual pH (Max, Min)	Not Available	Number of filters	12	Distribution pipe		
Annual alkalinity (Max, Mi)	Not Available	Total surface area (m2)	12	Diameter (mm), Quantity	75-200, PVC, GI	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	18,365	
Available or not	Not Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	604	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	-	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	1.4	Number of reservoirs	1	Number of staff	2	
Daily production (m3/day)	101	Total volume (m3)	300	Available Repair tools	Sufficient	
Type of water treatment	Rapid sand flter	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centrifugal, 2	Repaired leakages	2 /month	
		Capacity (L/s)	20	Replacing malfunction water meter	Not any	
		Diameter (mm)		Estimated UFW (%)	No Data	



Technical Data of SPAM IKK

Province	DI Yogyakarta	PDAM	Buntul	SPAM IKK	Selopamioro	2007
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<b>1.Population and Area</b>	B-25
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Total population	59,115 person	Total household	16,828 household
Service area population	13,895 person	Service area household	4,271 household
Population served	210 person	Household served	70 household
Coverage	1.5 %	Coverage	1.6 %
Area	54.0 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	Dinas Kabupaten	Distribution	Dinas Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	
Cause some or all of the running yet	Some running
	[ Delay of construction of distribution pipes ]
	[ The customers are still limited, so the intake still not used (using other Intake of different project ) ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	3 hours/day	Connections (active only)	
Water produced - ( 1 month operation) m3/year		Social	2
Water sold - ( 1 month operation) m3/year		Public Hydrant	0
Water sold - ( 1 month operation) m3/connection/month		Domestic	68
Unaccounted for water - ( 1 month operation) m3/year		Government	0
Unaccounted for water - ( 1 month operation) %		Total	70 connections

[ The system (SPAM IKK) was operated since April 2010 ]

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	No (still 1 month operation)
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Yes	Drawings and Maintenance plans	Yes
Education and training for maintenance	yes by contractor	Education and training for maintenance	Yes

Technical Data of SPAM IKK

Province	DI Yogyakarta	PDAM	Buntul	SPAM IKK	Selopamioro	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		90
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	12	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River	Engineer	2	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10	Total	2	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	1	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	6.8	Number of beds	1	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	17	Total volume (m3)	13	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	Open land	
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	l= 2,5 , w=2 , h=6	Working condition	Not used now	Type	Concrete, On ground	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (m3)	150	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	Not available	pH meter	1	Diameter (mm), Quantity	50-200, GI	
Annual Ave Turbidity	Not available	<b>2.6 Rapid sand filter</b>		Total length (m)	2,906	
Annual pH (Max, Min)	Not available	Number of filters	4	Distribution pipe		
Annual alkalinity (Max, Min)	Not available	Total surface area (m2)	10	Diameter (mm), Quantity	50-150, PVC, GI	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	26,761	
Available or not	Not available	Backwashing type	Self washing	Water Meter	<i>still 1 month operation</i>	
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	70	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	- (No data available)	
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	3	Number of reservoirs	2	Number of staff	2	
Daily production (m3/day)	108	Total volume (m3)	150	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	PAC	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	2	Repaired leakages	<i>still 1 month operation</i>	
		Capacity (L/s)	20	Replacing malfunction water meter	<i>still 1 month operation</i>	
		Diameter (mm)		Estimated UFW (%)	<i>still 1 month operation</i>	

Technical Data of SPAM IKK

Province	DI Yogyakarta	PDAM	Sleman	SPAM IKK	Gamping	2008
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<b>1.Population and Area</b>	B-26
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Total population	82,383 person	Total household	19,568 household
Service area population	18,346 person	Service area household	4,358 household
Population served	6,380 person	Household served	1,595 household
Coverage	34.8 %	Coverage	36.6 %
Area	29.3 km2		

[ Coverage indicates only the coverage of new system (SPAM IKK). ]

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	Dinas PU Kabupaten and Provincial Satker	Distribution	Dinas PU Kabupaten and Provincial Satker

<b>3.Operational status of projects facilities</b>
--

Operation status	
Cause some or all of the running yet	Some running
	[ WTP(SPAM IKK): 2 hours, Shallow well 1(existing): 22 hours and shallow 2(existing): 22 hours ]

[ Besides SPAM IKK, there are other additional system source from 2 unit of shallow well which built before IKK SPAM and collected together. ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	2 hours/day	Connections	
Water produced	353,666 m3/year	Social	8
Water sold	218,914 m3/year	Public Hydrant	5
Water sold	12 m3/connection/month	Domestic	1,579
Unaccounted for water	83,962 m3/year	Government	2
Unaccounted for water	26.6 %	Total	1,595 connections

[ Data by 2009. Shallow 1: 178,743 m3, Shallow well 2: 164,130 m3, WTP: 10,793 m3 ]

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good and clean (maintained well)
Actual existence of repair	Yes ( but, 1 pump still not yet repaired by only small problem)
Distributions	
Working conditions	Good (they have schedule to inspect pipeline 1 time/month)
Actual existence of repair	Yes ( Any leakage usually directly repaired by PDAM )

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Yes	Drawings and Maintenance plans	Yes
Education and training for maintenance	Yes	Education and training for maintenance	Yes

Technical Data of SPAM IKK

Province	DI Yogyakarta	PDAM	Sleman	SPAM IKK	Gamping	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		85
<b>1.1 Location</b>		Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	2	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	5	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River (+ shallow well)	Engineer	2	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	8 ( +23)	Total	9	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	Not Applied	Number of the tanks	1	Sludge drying beds		
Type of screen	Not Applied	Total surface area (m2)	6	Number of beds	1	
Type of Grit chamber	Not Applied	Total tank volume (m3)	20	Total volume (m3)	64	
Working condition	Not Applied	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	Not Applied	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	Not Applied	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Distributiono pipe leakage	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	l= 7 , w=2 , h=6	Working condition	Good	Type	Concrete, On ground	
Type and number of pump	Submersible, 2	<b>2.5 Water quality test equipments</b>		Capacity (m3)		
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	85	pH meter	1	Diameter (mm), Quantity	75, GI	
Annual Ave Turbidity	10	<b>2.6 Rapid sand filter</b>		Total length (m)	137	
Annual pH (Max, Min)	7.6	Number of filters	4	Distribution pipe		
Annual alkalinity (Max, Min)		Total surface area (m2)	2.25	Diameter (mm), Quantity	25-150, PVC	
Water quality analysis data		Filtration rate (m3/m2/day)	13	Total length (m)	28,714	
Available or not	Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	1595	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	- (No data available)	
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	2	Number of reservoirs	1	Number of staff	2	
Daily production (m3/day)	30	Total volume (m3)	46	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time	0.33	Availability of distribution map	Yes	
Type of coagulant being used	PAC	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centrifugal	Repaired leakages	12	
		Capacity (L/s)	10	Replacing malfunction water meter	<i>The facility still new</i>	
		Diameter (mm)		Estimated UFW (%)	26	

Technical Data of SPAM IKK

Province	West Kalimantan	PDAM	Pontianak (Kab.)	SPAM IKK	Jungkat	2007
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<b>1.Population and Area</b>	A-5
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Total population	41,156 person	Total household	6,860 household
Service area population	20,700 person	Service area household	3,450 household
Population served	1,092 person	Household served	182 household
Coverage	5.3 %	Coverage	5.3 %
Area	km2		

**2.Design and construction organizations**

Design organizations		Construction organizations	
Intake, WTP		Intake, WTP	
Distribution		Distribution	

**3.Operational status of projects facilities**

Operation status	Some running
Cause some or all of the running yet	Delay of distribution pipe construction

**4.Operational status (Existing area included)**

Hours of operation	8 hours/day	Connections (active only)	
Water produced	77,412 m3/year	Social	Commercial
Water sold	27,996 m3/year	Public Hydrant	4 Industry 3
Water sold	11 m3/connection/month	Domestic	175 Special
Unaccounted for water	49,416 m3/year	Government	-
Unaccounted for water	63 %	Total	182 connections

**5.Maintenance status**

Intake, WTP	
Working conditions	
Actual existence of repair	Yes, No
Distributions	
Working conditions	
Actual existence of repair	Yes, No

**6.Situation to take over maintenance agency (PDAM)**

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans		Drawings and Maintenance plans	
Education and training for maintenance		Education and training for maintenance	

Technical Data of SPAM IKK

Province	West Kalimantan	PDAM	Pontianak (Kab.)	SPAM IKK	Jungkat	2007	
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		50,60 (2 units)	
<b>1.1 Location</b>		Power source	Commercial grit	<b>2.9 Sludge management facilities</b>			
Distance from core area (km)	6	Plant management staff		Back washed water regulation tank			
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)	<i>Not Applied</i>		
Type	Parit Lanngar River	Engineer	0	Sludge regulating tank			
Gravity / Pumped	Pumped	Operator	1	Number of tank, Capacity (m3)	<i>Not Applied</i>		
Capacity (L/s)	10	Total	2	Sludge drying facilities type			
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering			
Weir		<b>2.2 Plain sedimentation tank</b>			Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds	<i>Not Applied</i>		
Type of screen	<i>Not Applied</i>	Total surface area	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>		
Type of Grit chamber	<i>Not Applied</i>	Total tank volume	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>		
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>			Dry cake final disposal place	<i>Not Applied</i>	
Spring Broncaptering		Number of filters	4	<b>2.10 Operation and maintenance</b>			
Type of structure	<i>Not Applied</i>	Total surface area (m2)	-	Power fail frequency			
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	-	Typical mechanical trouble	Damage pump bearing		
Well		<b>2.4 Coagulation facilities</b>			Typical electrical trouble	Over current, Low voltage	
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing	<b>3. Distribution system</b>			
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>			
Depth(m)	<i>Not Applied</i>	Working condition	Good	Type	Concrete		
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>			Capacity (L/s)		
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	1	<b>3.2 Pipeline</b>			
Operation hours	<i>Not Applied</i>	Turbidity meter	1	Transmission pipe			
Type of pump	<i>Not Applied</i>	pH meter	1	Diameter (mm), Quantity	100-150, PVC, GI		
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>			Total length (m)	100	
<b>1.4 Water Quality Data</b>		Number of filters	4	Distribution pipe			
Annual Max Turbidity	24	Total surface area (m2)	4.14	Diameter (mm), Quantity	50-150, PVC		
Annual Ave Turbidity	21	Filtration rate (m3/m2/day)	2.17	Total length (m)	20,519		
Annual Max pH	6.2	Backwashing type	Self washing	Water Meter			
Annual Min pH	4.2	Auxiliary backwash system	None	Installation water meter	182		
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	27.0%		
Available or not	Available	<b>2.7 Clear water reservoir</b>			<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	2	Number of staff	1		
<b>2.1 Basic Information</b>		Total volume (m3)	100	Available Repair tools	Sufficient		
Design capacity (L/s)	10	Retention time	2.8	Availability of distribution map	No		
Daily operation hours (hrs)	8	<b>2.8 Distribution pump</b>			Availability of leakage repair records	No	
Daily production (m3/day)	215	Type and number	Centrifugal, 3	Repaired leakages	16/year		
Type of water treatment	Rapid sand filter	Capacity (L/s)	10	Replacing malfunction water meter	21/year		
Type of coagulant being used	AS	Diameter (mm)	80×65	Estimated UFW (%)	63		

Technical Data of SPAM IKK

Province	West Kalimantan	PDAM	Singkawang	SPAM IKK	Sei Bulan	2008
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<b>1.Population and Area</b>						A-6
Total population	19,856 person	Total household	3,971 household			
Service area population	3,500 person	Service area household	3,971 household			
Population served	617 person	Household served	250 household			
Coverage	17.6 %	Coverage	6.3 %			
Area	94 km2					

<b>2.Design and construction organizations</b>			
Design organizations		Construction organizations	
Intake, WTP		Intake, WTP	
Distribution		Distribution	

<b>3.Operational status of projects facilities</b>	
Operation status	Some running
Cause some or all of the running yet	Delay of distribution pipe construction, Delay in coordination with outside agencies.
	[ The facilities not yet hand-over to PDAM Kota Singkawang as waiting for the establishment of Regional Regulation for PDAM ]

<b>4.Operational status</b> (No record available, as the distribution pipeline is not yet installed. The construction of distribution pipeline is just scheduled to start within 2010 only)			
Hours of operation	3 hours/day	Connections (active only)	
Water produced	m3/year	Social	Commercial
Water sold	m3/year	Public Hydrant	12 Industry
Water sold	m3/connection/month	Domestic	Special
Unaccounted for water	m3/year	Government	-
Unaccounted for water	%	Total	12 connections

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	
Actual existence of repair	Yes, No
Distributions	
Working conditions	
Actual existence of repair	Yes, No

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans		Drawings and Maintenance plans	
Education and training for maintenance		Education and training for maintenance	

Technical Data of SPAM IKK

Province		West Kalimantan		PDAM		Singkawang		SPAM IKK		Sei Bulan		2008	
<b>1. Water Source</b>				Chemical for disinfection				Bleaching powder					
<b>1.1 Location</b>				Power source				Diesel E. G					
Distance from core area (km)		16		Plant management staff									
<b>1.2 Water Source &amp; capacity</b>				Administration				1					
Type		Semelagi River		Engineer				1					
Gravity / Pumped		Pumped		Operator				4					
Capacity (L/s)		-		Total				6					
<b>1.3 Water Intake Structure</b>				Operation shifts per day									
Weir				<b>2.2 Plain sedimentation tank</b>									
Type of structure		Not Applied		Number of the tanks		Not Applied							
Type of screen		Not Applied		Total surface area		Not Applied							
Type of Grit chamber		Not Applied		Total tank volume		Not Applied							
Working condition		Not Applied		<b>2.3 Slow sand filter</b>									
Spring Broncaptering				Number of filters				4					
Type of structure		Not Applied		Total surface area (m2)				-					
Working condition		Not Applied		Filtration rate (m3/m2/day)				-					
Well				<b>2.4 Coagulation facilities</b>									
Type		Not Applied		Mixing methods		Rapid mixing							
Diameter (mm)		Not Applied		Type of mixer		Hydraulic							
Depth(m)		Not Applied		Working condition		Good							
Discharge rate(L/s)		Not Applied		<b>2.5 Water quality test equipments</b>									
SWL / PWL(m)		Not Applied		Jar tester		1							
Operation hours		Not Applied		Turbidity meter		1							
Type of pump		Not Applied		pH meter		1							
Working condition		Not Applied		<b>2.6 Rapid sand filter</b>									
<b>1.4 Water Quality Data</b>				Number of filters				Not Applied					
Annual Max Turbidity		Not data available		Total surface area (m2)				Not Applied					
Annual Ave Turbidity		Not data available		Filtration rate (m3/m2/day)				Not Applied					
Annual Max pH		Not data available		Backwashing type				Not Applied					
Annual Min pH		Not data available		Auxiliary backwash system				Not Applied					
Water quality analysis data				Type of valves and gates				Not Applied					
Available or not		Not		<b>2.7 Clear water reservoir</b>									
<b>2. Treatment Systems</b>				Number of reservoirs				1					
<b>2.1 Basic Information</b>				Total volume (m3)				200					
Design capacity (L/s)		10		Retention time				-					
Daily operation hours (hrs)		3		<b>2.8 Distribution pump</b>									
Daily production (m3/day)		Not recorded		Type and number		Centrifugal, 3							
Type of water treatment		Rapid sand filter		Capacity (L/s)		5							
Type of coagulant being used		AS		Diameter (mm)		490							
				Head (m)				35					
				<b>2.9 Sludge management facilities</b>									
				Back washed water regulation tank									
				Number of tank, Capacity (m3)				Not Applied					
				Sludge regulating tank									
				Number of tank, Capacity (m3)				Not Applied					
				Sludge drying facilities type									
				Mechanical dewatering									
				Treating capacity (m3/hour)				Not Applied					
				Sludge drying beds									
				Number of beds				Not Applied					
				Total volume (m3)				Not Applied					
				Dry cake final disposal place				Not Applied					
				<b>2.10 Operation and maintenance</b>									
				Power fail frequency				Not recorded					
				Typical mechanical trouble of pipe, Replacement of pipe gasket									
				Typical electrical trouble Over current of pump, Low voltage									
				<b>3. Distribution system</b>									
				<b>3.1 Distribution reservoir</b>									
				Type				Concrete					
				Capacity (L/s)									
				<b>3.2 Pipeline</b>									
				Transmission pipe									
				Diameter (mm), Quantity				150, PVC					
				Total length (m)				10,656					
				Distribution pipe									
				Diameter (mm), Quantity				50, PVC					
				Total length (m)				1,645					
				Water Meter									
				Installation water meter				Not Applied					
				Percentage of malfunction meter (				Not Applied					
				<b>3.3 Water leakage repair</b>									
				Number of staff				4					
				Available Repair tools				Sufficient					
				Availability of distribution map				No					
				Availability of leakage repair records				No					
				Repaired leakages				Not Applied					
				Replacing malfunction water meter				Not Applied					
				Estimated UFW (%)									



Technical Data of SPAM IKK

Province	Kalimantan Timur	PDAM	Penajam Paser Utara	SPAM IKK	Sepaku	2005
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<b>1.Population and Area</b>						B-27
Total population	30,708 person	Total household	7,525 household	(Data by March 2010)		
Service area population	3,077 person	Service area household	780 household			
Population served	1,170 person	Household served	234 household			
Coverage	38.0 %	Coverage	30.0 %			
Area	1172.36 km2					

<b>2.Design and construction organizations</b>					
Design organizations			Construction organizations		
Intake, WTP	Satker Province		Intake, WTP	Satker Province	
Distribution	Satker Province		Distribution	Satker Province	

<b>3.Operational status of projects facilities</b>	
Operation status	Some running ( 2 days/week )
Cause some or all of the running yet	Delay of construction of distribution pipes

<b>4.Operational status</b>					
Hours of operation	24 hours/day	【 2day/week 】	Connections (active only)		
Water produced	67,392 m3/year		Social	7	Commercial 0
Water sold	37,875 m3/year		Public Hydrant	6	Industry 1
Water sold	13 m3/connection/month		Domestic	220	Special 0
Unaccounted for water	29,517 m3/year		Government	0	-
Unaccounted for water	43.8 %		Total	234	connections

(Data by Technical report, 2007, 2009)

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	Not so good, because the basin made of ulin wood, many debris come to the intake and sometimes crocodile come
Actual existence of repair	Dinas PU Kabupaten proposed to use the non-motor pumping intake (still under construction, will be completed in 2010)
Distributions	
Working conditions	Good
Actual existence of repair	Not applied (need expansion, demand is high, no budget)

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Kalimantan Timur	PDAM	Penajam Paser Utara	SPAM IKK	Sepaku	2005
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		20
<b>1.1 Location</b>		Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	1.5	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River	Engineer	2	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	5 (+2.5)	Total	6	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	Other ( wood )	Number of the tanks	2	Sludge drying beds		
Type of screen	Bar screen manual raking	Total surface area (m2)	6.4	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	21.8	Total volume (m3)	<i>Not Applied</i>	
Working condition	Good	<b>2.3 Slow sand filter</b>		Dry cake final disposal place	<i>Not Applied</i>	
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	5 times/year	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Leackage, Water meter	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Control panel	
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Depth(m)	<i>Not Applied</i>	Working condition	Fair	Type	Concrete, On ground	
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	100	
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
Operation hours	<i>Not Applied</i>	Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Type of pump	<i>Not Applied</i>	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	<i>Not Applied</i>	
<b>1.4 Water Quality Data</b>		Number of filters	8	Distribution pipe		
Annual Max Turbidity	200	Total surface area (m2)	3.1	Diameter (mm), Quantity	PVC	
Annual Ave Turbidity	54	Filtration rate (m3/m2/day)	208.1	Total length (m)	No data	
Annual pH (Max, Min)	6.2	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Min)	Not measured	Auxiliary backwash system	Water only	Installation water meter	234	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	2	
<b>2.1 Basic Information</b>		Total volume (m3)	100	Available Repair tools	Sufficient	
Design capacity (L/s)	5 (+2.5)	Retention time	3.7	Availability of distribution map	Yes	
Daily operation hours (hrs)	24 (2day/week)	<b>2.8 Distribution pump</b>		Availability of leakage repair records	No	
Daily production (m3/day)		Type and number	Centrifugal 1(+1), Submersible 1(+1)	Repaired leakages	48 (Data 2009)	
Type of water treatment	RSF (Package)	Capacity (L/s)	7.5, 8	Replacing malfunction water meter	6 (Data 2009)	
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)	43.8	

Technical Data of SPAM IKK

Province	Kalimantan Timur	PDAM	Kutai Kartanegara	SPAM IKK	Loa Janan	2007
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<b>1.Population and Area</b>				B-28
Total population	49,185 person	Total household	9,837 household	(Loa Janan Subdistrict in figure 2009)
Service area population	4,376 person	Service area household	875 household	
Population served	2,450 person	Household served	490 household	
Coverage	56.0 %	Coverage	56.0 %	
Area	96.91 km2			

<b>2.Design and construction organizations</b>			
Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	Satker Province	Distribution	Satker Province

<b>3.Operational status of projects facilities</b>	
Operation status	Some running
Cause some or all of the running yet	Delay of construction of distribution pipes [Need the expansion, demand is high]
	Design problem with WTP
	[WTP is not good in design and material is made of fiber, the filter sometimes flown away to reservoir]

<b>4.Operational status</b>			
Hours of operation	7 hours/day	Connections (active only)	
Water produced	126,531 m3/year	Social	14 Commercial 0
Water sold	105,923 m3/year	Public Hydrant	5 Industry 0
Water sold	17 m3/connection/month	Domestic	501 Special 0
Unaccounted for water	11,599 m3/year	Government	3 -
Unaccounted for water	9.87 %	Total	523 connections

(Production and laboratory report PDAM Kutai Kertanagara, 2009)

<b>5.Maintenance status</b>	
Intake, WTP	
Working conditions	Fair ( The problem is on the quality of raw water. If raining comes, SPAM IKK could not operate)
Actual existence of repair	PDAM has repaired 10 times for WTP using Fiber
Distributions	
Working conditions	Good
Actual existence of repair	

<b>6.Situation to take over maintenance agency (PDAM)</b>			
Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No



Technical Data of SPAM IKK

Province	South Kalimantan	PDAM	Banjar	SPAM IKK	Kertak Hanyar	2005
<b>1.Population and Area</b>						B-29
Total population	- person	Total household	- household			
Service area population	20,410 person	Service area household	5,113 household			
Population served	12,845 person	Household served	2,569 household			
Coverage	62.9 %	Coverage	50.2 %			
Area	- km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	IPA : N/A, WTP : Satker Province		Intake, WTP	Satker Province		
Distribution	-		Distribution	-		
<b>3.Operational status of projects facilities</b>						
Operation status	All running [Supplying raw water is stable.]					
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections (active only)				
Water produced	520,344 m3/year	Social	58	Commercial	208	
Water sold	338,292 m3/year	Public Hydrant	0	Industry	3	
Water sold	20 m3/connection/month	Domestic	2,569	Special	0	
Unaccounted for water	130,018 m3/year	Government	4	-		
Unaccounted for water	25 %	Total	2,842	connections		
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions	Good					
Actual existence of repair	Yes					
Distributions						
Working conditions	Good					
Actual existence of repair	Yes					
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No		Drawings and Maintenance plans	-		
Education and training for maintenance	Yes (Perpamsi)		Education and training for maintenance	-		

Technical Data of SPAM IKK

Province	South Kalimantan	PDAM	Banjar	SPAM IKK	Kertak Hanyar	2005
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		30
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	28	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	River (pipe tapping)	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	3	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	20 (+20)	Total	3	Sludge drying facilities type		
<b>1.3 Water Intake Structure (Use existing)</b>		Operation shifts per day	2	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type	<i>Not Applied</i>	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Diameter (mm)	<i>Not Applied</i>	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Depth(m)	<i>Not Applied</i>	Working condition	R:Good, S:Poor(under repairing)	Type	Concrete, On ground	
Discharge rate(L/s)	<i>Not Applied</i>	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	200	
SWL / PWL(m)	<i>Not Applied</i>	Jar tester	0	<b>3.2 Pipeline</b>		
Operation hours	<i>Not Applied</i>	Turbidity meter	0	Transmission pipe		
Type of pump	<i>Not Applied</i>	pH meter	0	Diameter (mm), Quantity	300, PVC	
Working condition	<i>Not Applied</i>	<b>2.6 Rapid sand filter</b>		Total length (m)	300	
<b>1.4 Water Quality Data</b>		Number of filters	1	Distribution pipe		
Annual Max Turbidity	1000	Total surface area (m2)		Diameter (mm), Quantity	<i>Not Applied</i>	
Annual Ave Turbidity	100	Filtration rate (m3/m2/day)		Total length (m)	<i>Not Applied</i>	
Annual pH (Max, Min)	Not measured	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Mi)	Not measured	Auxiliary backwash system	Water only	Installation water meter	110	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	1	
<b>2.1 Basic Information</b>		Total volume (m3)	200	Available Repair tools	Sufficient	
Design capacity (L/s)	20	Retention time		Availability of distribution map	Yes	
Daily operation hours (hrs)	24	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)	1462	Type and number	Centrifugal, 3	Repaired leakages	240-300	
Type of water treatment	RSF	Capacity (L/s)	40	Replacing malfunction water meter	120-240	
Type of coagulant being used	AS, Chlorine	Diameter (mm)		Estimated UFW (%)	25	

Technical Data of SPAM IKK

Province	South Kalimantan	PDAM	Tapin	SPAM IKK	Binuang	2005
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<b>1.Population and Area</b>	B-30
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Total population	23,572 person	Total household	6,383 household
Service area population	15,708 person	Service area household	4,283 household
Population served	12,845 person	Household served	2,569 household
Coverage	81.8 %	Coverage	60.0 %
Area	218.1 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
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Design organizations		Construction organizations	
Intake, WTP	IPA : PDAM, WTP : Satker Province	Intake, WTP	Satker Province
Distribution	PDAM	Distribution	Kabupaten Tapin through PDAM

<b>3.Operational status of projects facilities</b>
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Operation status	All running
Cause some or all of the running yet	

<b>4.Operational status</b>
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Hours of operation	24 hours/day	Connections (active only)	
Water produced	337,968 m <sup>3</sup> /year	Social	15
Water sold	235,836 m <sup>3</sup> /year	Public Hydrant	15
Water sold	m <sup>3</sup> /connection/month	Domestic	1,223
Unaccounted for water	99,465 m <sup>3</sup> /year	Government	8
Unaccounted for water	33.2 %	Total	1,280 connections

<b>5.Maintenance status</b>
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Intake, WTP	
Working conditions	Poor [ WTP maintenance is done unfrequently for cleaning sediment at sedimentational tank. ]
Actual existence of repair	No Apply
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	South Kalimantan	PDAM	Tapin	SPAM IKK	Binuang	2005
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		30
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	28	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Binuang River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	3	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	10 (+5 +5)	Total	5	Sludge drying facilities type		
<b>1.3 Water Intake Structure (Use existing)</b>		Operation shifts per day	2	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	ball bearing repairing for Intake pump	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Well	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Wood (housing wood)	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	L=0.75, W=0.75, H=3	Working condition	R:Good, S:Fair	Type	Concrete, On ground	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	100	
Working condition	Good	Jar tester	0	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	0	Transmission pipe		
Annual Max Turbidity	Not measured	pH meter	0	Diameter (mm), Quantity	150, PVC	
Annual Ave Turbidity	Not measured	<b>2.6 Rapid sand filter</b>		Total length (m)	150	
Annual pH (Max, Min)	Not measured	Number of filters	2	Distribution pipe		
Annual alkalinity (Max, Min)	Not measured	Total surface area (m2)		Diameter (mm), Quantity	25-150, PVC	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	13,693	
Available or not	Not available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	No Data	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	24	Number of reservoirs	1	Number of staff	1	
Daily production (m3/day)		Total volume (m3)	100	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	AS, Chlorine	<b>2.8 Distribution pump</b>		Availability of leakage repair records	No	
		Type and number	Centrifugal, 3	Repaired leakages		
		Capacity (L/s)	20	Replacing malfunction water meter	24	
		Diameter (mm)		Estimated UFW (%)	33.2	



Technical Data of SPAM IKK

Province	Central Kalimantan	PDAM	Katingan	SPAM IKK	Kereng Pangi	2005
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<b>1.Population and Area</b>	B-31
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Total population	23,324 person	Total household	15,322 household
Service area population	10,955 person	Service area household	2,816 household
Population served	1,740 person	Household served	348 household
Coverage	15.9 %	Coverage	12.4 %
Area	663.0 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	-	Distribution	-

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[ PDAM operating time is 2:00 to 23:00 ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	21 hours/day	Connections (active only)			
Water produced	106,080 m <sup>3</sup> /year	Social	2	Commercial	0
Water sold	101,970 m <sup>3</sup> /year	Public Hydrant	1	Industry	0
Water sold	24.5 m <sup>3</sup> /connection/month	Domestic	332	Special	0
Unaccounted for water	780 m <sup>3</sup> /year	Government	1		
Unaccounted for water	12.0 %	Total	336 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Fair
Actual existence of repair	Yes
Distributions	
Working conditions	Fair
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	-
Education and training for maintenance	Yes	Education and training for maintenance	-

Technical Data of SPAM IKK

Province	Central Kalimantan	PDAM	Katingan	SPAM IKK	Kereng Pangi	2005
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		20
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	15	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Katingan River	Engineer	1	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	5	Total	0	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	2	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	<i>Not Applied</i>	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	<i>Not Applied</i>	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncaptering		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	7 times/week	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	pomp motor burn	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	contactor burn	
Type		Mixing methods	Rapid mixing	<b>3. Distribution system</b>		
Diameter (mm)		Type of mixer	Mechanical	<b>3.1 Distribution reservoir</b>		
Depth(m)		Working condition	Fair	Type	Concrete, On ground	
Discharge rate(L/s)		<b>2.5 Water quality test equipments</b>		Capacity (L/s)	100	
SWL / PWL(m)		Jar tester	<i>Not Applied</i>	<b>3.2 Pipeline</b>		
Operation hours	21	Turbidity meter	<i>Not Applied</i>	Transmission pipe		
Type of pump	Submersible	pH meter	<i>Not Applied</i>	Diameter (mm), Quantity	150, PVC	
Working condition	Good	<b>2.6 Rapid sand filter</b>		Total length (m)	125	
<b>1.4 Water Quality Data</b>		Number of filters	6	Distribution pipe		
Annual Max Turbidity	Not Available	Total surface area (m2)	3.75	Diameter (mm), Quantity	<i>Not Applied</i>	
Annual Ave Turbidity	Not Available	Filtration rate (m3/m2/day)		Total length (m)	<i>Not Applied</i>	
Annual pH (Max, Min)	Not Available	Backwashing type	Self washing	Water Meter		
Annual alkalinity (Max, Mi	Not Available	Auxiliary backwash system	Water only	Installation water meter	<i>Not Applied</i>	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	<i>Not Applied</i>	
Available or not	Not Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs	1	Number of staff	1	
<b>2.1 Basic Information</b>		Total volume (m3)	50	Available Repair tools	In sufficient	
Design capacity (L/s)	5	Retention time	3	Availability of distribution map	Yes	
Daily operation hours (hrs)	21	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
Daily production (m3/day)	356.4	Type and number	Centrifugal, 2	Repaired leakages	39 /years	
Type of water treatment	RSF	Capacity (L/s)	5	Replacing malfunction water meter	-	
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)	12	

Technical Data of SPAM IKK

Province	Central Kalimantan	PDAM	Gunung Mas	SPAM IKK	Tumbang Talaken	2008
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<b>1.Population and Area</b>	B-32
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Total population	6,600 person	Total household	1,877 household
Service area population	1,848 person	Service area household	503 household
Population served	410 person	Household served	82 household
Coverage	22.2 %	Coverage	16.3 %
Area	1,113.0 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
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Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	-	Distribution	-

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[ Delay of construction of distribution pipe ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	4 hours/day	Connections (active only)			
Water produced	27,900 m <sup>3</sup> /year	Social	2	Commercial	1
Water sold	8,584 m <sup>3</sup> /year	Public Hydrant	0	Industry	0
Water sold	17.45 m <sup>3</sup> /connection/month	Domestic	68	Special	0
Unaccounted for water	14,171 m <sup>3</sup> /year	Government	11	-	
Unaccounted for water	50.8 %	Total	82 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	-
Education and training for maintenance	No	Education and training for maintenance	-

Technical Data of SPAM IKK

Province		Central Kalimantan		PDAM	Gunung Mas	SPAM IKK	Tumbang Talaken	2008	
<b>1. Water Source</b>				Chemical for disinfection	Bleaching powder	Head (m)			60
<b>1.1 Location</b>				Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>			
Distance from core area (km)		0		Plant management staff		Back washed water regulation tank			
<b>1.2 Water Source &amp; capacity</b>				Administration	2	Number of tank, Capacity (m3)		<i>Not Applied</i>	
Type	Manuhing River			Engineer	0	Sludge regulating tank			
Gravity / Pumped	Pumped			Operator	2	Number of tank, Capacity (m3)		<i>Not Applied</i>	
Capacity (L/s)	10			Total	0	Sludge drying facilities type			
<b>1.3 Water Intake Structure</b>				Operation shifts per day	4	Mechanical dewatering			
Weir				<b>2.2 Plain sedimentation tank</b>				Treating capacity (m3/hour)	<i>Not Applied</i>
Type of structure		<i>Not Applied</i>		Number of the tanks		Sludge drying beds			
Type of screen		<i>Not Applied</i>		Total surface area (m2)		Number of beds		4	
Type of Grit chamber		<i>Not Applied</i>		Total tank volume (m3)		Total volume (m3)		22	
Working condition		<i>Not Applied</i>		<b>2.3 Slow sand filter</b>				Dry cake final disposal place	
Spring Broncaptering				Number of filters		Not Applied		<b>2.10 Operation and maintenance</b>	
Type of structure		<i>Not Applied</i>		Total surface area (m2)		Not Applied		Power fail frequency	
Working condition		<i>Not Applied</i>		Filtration rate (m3/m2/day)		Not Applied		Typical mechanical trouble	
Well				Mixing methods		Rapid mixing, Slow mixing		Typical electrical trouble	
Type				Type of mixer		Hydraulic		Pipe leakage	
Diameter (mm)				Working condition		Good			
Depth(m)				<b>2.4 Coagulation facilities</b>				<b>3. Distribution system</b>	
Discharge rate(L/s)				<b>2.5 Water quality test equipments</b>				<b>3.1 Distribution reservoir</b>	
SWL / PWL(m)				Jar tester		1		Type	
Operation hours		4		Turbidity meter		1		Capacity (L/s)	
Type of pump		Submersible		pH meter		1		Concrete, On ground	
Working condition		Good		<b>2.6 Rapid sand filter</b>				150	
<b>1.4 Water Quality Data</b>				Number of filters		1		<b>3.2 Pipeline</b>	
Annual Max Turbidity		Not Available		Total surface area (m2)				Transmission pipe	
Annual Ave Turbidity		Not Available		Filtration rate (m3/m2/day)				Diameter (mm), Quantity	
Annual pH (Max, Min)		Not Available		Backwashing type		By elev. Tank		Total length (m)	
Annual alkalinity (Max, Mi		Not Available		Auxiliary backwash system		Water only		Distribution pipe	
Water quality analysis data				Type of valves and gates		Manual		Diameter (mm), Quantity	
Available or not		Not Available		<b>2.7 Clear water reservoir</b>				Total length (m)	
<b>2. Treatment Systems</b>				Number of reservoirs		1		Water Meter	
<b>2.1 Basic Information</b>				Total volume (m3)		150		Installation water meter	
Design capacity (L/s)		10		Retention time				Percentage of malfunction meter (	
Daily operation hours (hrs)		4		<b>2.8 Distribution pump</b>				No Data	
Daily production (m3/day)		27900		Type and number		Not Applied (Centrifugal, 3)		No Data	
Type of water treatment		RSF		Capacity (L/s)		Not Applied (5)		<b>3.3 Water leakage repair</b>	
Type of coagulant being used		AS		Diameter (mm)		Not Applied (50)		Number of staff	
								1	
								Available Repair tools	
								In sufficient	
								Availability of distribution map	
								Yes	
								Availability of leakage repair records	
								Yes	
								Repaired leakages	
								30 /years	
								Replacing malfunction water meter	
								4 /years	
								Estimated UFW (%)	
								50.8	

Technical Data of SPAM IKK

Province	Central Sulawesi	PDAM	Donggala	SPAM IKK	Binangga	2005
<b>1.Population and Area</b>						B-33
Total population	12,984 person	Total household	3,331 household			
Service area population	10,446 person	Service area household	2,607 household			
Population served	690 person	Household served	138 household			
Coverage	6.6 %	Coverage	5.3 %			
Area	112.0 km <sup>2</sup>					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Intake : GOI & GOJ cooperation, WTP : Satker Province		Intake, WTP	Intake : GOI & GOJ cooperation, WTP : Satker Province		
Distribution	GOI and GOJ cooperation		Distribution	GOI and GOJ cooperation		
[GOI and GOJ cooperation : Rural water supply project for Sulawesi island]						
<b>3.Operational status of projects facilities</b>						
Operation status						
Cause some or all of the running yet		Some running				
		[ Condition of raw water turbidity is not match with treatment plant, so WTP operation is not 16 days in a month ]				
		[ Excessive design of upstream capacity for the downstream, WTP (Slow sand filter) can not be operated. ]				
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections				
Water produced	331,776 m <sup>3</sup> /year	Social	4	Commercial	0	
Water sold	— (No data available) m <sup>3</sup> /year	Public Hydrant	0	Industry	0	
Water sold	— (No data available) m <sup>3</sup> /connection/month	Domestic	128	Special	0	
Unaccounted for water	— (No data available) m <sup>3</sup> /year	Government	0	-		
Unaccounted for water	— (No data available) %	Total	132 connections			
[ The data are not available because no main water meter at reservoir and no water meter installing at connections ]						
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Poor				
Actual existence of repair		No				
Distributions						
Working conditions		Poor				
Actual existence of repair		No				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	Yes (Intake only)	Drawings and Maintenance plans			No	
Education and training for maintenance	No	Education and training for maintenance			No	

Technical Data of SPAM IKK

Province	Central Sulawesi	PDAM	Donggala	SPAM IKK	Binangga	2005
<b>1. Water Source</b>		Chemical for disinfection		Bleaching powder		
<b>1.1 Location</b>		Power source		Diesel E. Generator		
Distance from core area (km)	1	Plant management staff				
<b>1.2 Water Source &amp; capacity</b>		Administration		2		
Type	Wisolo River	Engineer		0		
Gravity / Pumped	Gravity	Operator		2		
Capacity (L/s)	20	Total		4		
<b>1.3 Water Intake Structure</b>		Operation shifts per day				
<b>Weir</b>		<b>2.2 Plain sedimentation tank</b>				
Type of structure	Not Applied	Number of the tanks		1		
Type of screen	Not Applied	Total surface area (m2)				
Type of Grit chamber	Not Applied	Total tank volume (m3)				
Working condition	Not Applied	<b>2.3 Slow sand filter</b>				
Spring Broncapturing		Number of filters		3		
Type of structure	Not Applied	Total surface area (m2)				
Working condition	Not Applied	Filtration rate (m3/m2/day)				
Raw water Collection		<b>2.4 Coagulation facilities</b>				
Type of collection	Well	Mixing methods		Not Applied		
Type of structure	Concrete	Type of mixer		Not Applied		
Size (m)	l= 1.5, w= 1.5, h= 6	Working condition		Not Applied		
Type and number of pump	by Gravity	<b>2.5 Water quality test equipments</b>				
Working condition	Good	Jar tester		0		
<b>1.4 Water Quality Data</b>		Turbidity meter		0		
Annual Max Turbidity	Not Available	pH meter		0		
Annual Ave Turbidity	Not Available	<b>2.6 Rapid sand filter</b>				
Annual pH (Max, Min)	Not Available	Number of filters		Not Applied		
Annual alkalinity (Max, Mi	Not Available	Total surface area (m2)		Not Applied		
Water quality analysis data	Not Available	Filtration rate (m3/m2/day)		Not Applied		
Available or not	Not Available	Backwashing type		Not Applied		
<b>2. Treatment Systems</b>		Auxiliary backwash system		Not Applied		
<b>2.1 Basic Information</b>		Type of valves and gates		Not Applied		
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>				
Daily operation hours (hrs)	24	Number of reservoirs		1		
Daily production (m3/day)	1,728	Total volume (m3)		400		
Type of water treatment	Slow Sand Filter	Retention time				
Type of coagulant being used	Not Applied	<b>2.8 Distribution pump</b>				
<b>2.9 Sludge management facilities</b>		Type and number		by Gravity		
Back washed water regulation tank		Capacity (L/s)				
Number of tank, Capacity (m3)	Not Applied	Diameter (mm)				
Sludge regulating tank		<b>3. Distribution system</b>				
Number of tank, Capacity (m3)	Not Applied	<b>3.1 Distribution reservoir</b>				
Sludge drying facilities type		Type		Concrete, On ground		
Mechanical dewatering		Capacity (m3)		400		
Treating capacity (m3/hour)	Not Applied	<b>3.2 Pipeline</b>				
Sludge drying beds		Transmission pipe				
Number of beds	Not Applied	Diameter (mm), Quantity		150, GI		
Total volume (m3)	Not Applied	Total length (m)		60		
Dry cake final disposal place		Distribution pipe				
<b>2.10 Operation and maintenance</b>		Diameter (mm), Quantity		25-150, PVC		
Power fail frequency		Total length (m)		15,695		
Typical mechanical trouble		Water Meter				
Typical electrical trouble		Installation water meter		No water meter connection		
<b>3. Distribution system</b>		Percentage of malfunction meter		No water meter connection		
<b>3.1 Distribution reservoir</b>		<b>3.3 Water leakage repair</b>				
<b>Type</b>		Number of staff		1		
<b>Capacity (m3)</b>		Available Repair tools		Sufficient		
<b>3.2 Pipeline</b>		Availability of distribution map		No		
Transmission pipe		Availability of leakage repair records		No		
Diameter (mm), Quantity		Repaired leakages		24 /year		
Total length (m)		Replacing malfunction water meter		No water meter connection		
Distribution pipe		Estimated UFW (%)		No water meter connection		
Diameter (mm), Quantity						
Total length (m)						
Water Meter						
Installation water meter						
Percentage of malfunction meter						

Technical Data of SPAM IKK

Province	Central Sulawesi	PDAM	Donggala	SPAM IKK	Sebang	2008
<b>1.Population and Area</b>						B-35
Total population	31,455 person	Total household	6,291 household			
Service area population	8,424 person	Service area household	1,866 household			
Population served	(5,000) person	Household served	(1,000) household			
Coverage	(15.9) %	Coverage	(15.9) %			
Area	732.0 km <sup>2</sup>					
[ Population serve and Househole serve are target design, however at present there is not connection yet. ]						
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Central Satker		Intake, WTP	Central Satker		
Distribution	Cipta karya Kabupaten		Distribution	Cipta karya Kabupaten		
<b>3.Operational status of projects facilities</b>						
Operation stas						
Cause some or all of the running yet		Not operation yet				
		[ Not complete for distribution pipe yet ]				
<b>4.Operational status</b>						
Hours of operation	— (Not yet operation) hours/day	Connections				
Water produced	— (Not yet operation) m <sup>3</sup> /year	Social		Commercial		
Water sold	— (Not yet operation) m <sup>3</sup> /year	Public Hydrant		Industry		
Water sold	— (Not yet operation) m <sup>3</sup> /connection/month	Domestic (1,000)		Special		
Unaccounted for water	— (Not yet operation) m <sup>3</sup> /year	Government		-		
Unaccounted for water	— (Not yet operation) %	Total		(1,000) connections		
[ Number of connection is target design, however at present there is not connection yet. ]						
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Not operation yet				
Actual existence of repair		Not operation yet				
Distributions						
Working conditions		Not operation yet				
Actual existence of repair		Not operation yet				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	Yes		Drawings and Maintenance plans	Yes		
Education and training for maintenance	No		Education and training for maintenance	No		

Technical Data of SPAM IKK

Province	Central Sulawesi	PDAM	Donggala	SPAM IKK	Sebang	2008
<b>1. Water Source</b>		Chemical for disinfection		Head (m)		
<b>1.1 Location</b>		Power source		<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	3	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration		Number of tank, Capacity (m3)		
Type	Talaga Lake	Engineer		<i>Not Applied</i>		
Gravity / Pumped	Pumped	Operator		Sludge regulating tank		
Capacity (L/s)	10	Total		Number of tank, Capacity (m3)		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		<i>Not Applied</i>		
Weir		<b>2.2 Plain sedimentation tank</b>		Sludge drying facilities type		
Type of structure	Not Applied	Number of the tanks		Mechanical dewatering		
Type of screen	Not Applied	Total surface area (m2)		Treating capacity (m3/hour)		
Type of Grit chamber	Not Applied	Total tank volume (m3)		<i>Not Applied</i>		
Working condition	Not Applied	<b>2.3 Slow sand filter</b>		Sludge drying beds		
Spring Broncapturing		Number of filters		Number of beds		
Type of structure	Not Applied	Total surface area (m2)		Total volume (m3)		
Working condition	Not Applied	Filtration rate (m3/m2/day)		10		
Raw water Collection		<b>2.4 Coagulation facilities</b>		Dry cake final disposal place		
Type of collection	Well	Mixing methods		<b>2.10 Operation and maintenance</b>		
Type of structure	Concrete	Type of mixer		Power fail frequency		
Size (m)	l= 2.5, w= 2.5, h=2	Working condition		Typical mechanical trouble		
Type and number of pump	Submersible, 1	<b>2.5 Water quality test equipments</b>		Typical electrical trouble		
Working condition	Good	Jar tester		Not yet operation		
<b>1.4 Water Quality Data</b>		Turbidity meter		Not yet operation		
Annual Max Turbidity	Not Available	pH meter		Not yet operation		
Annual Ave Turbidity	Not Available	<b>2.6 Rapid sand filter</b>		<b>3. Distribution system</b>		
Annual pH (Max, Min)	Not Available	Number of filters		<b>3.1 Distribution reservoir</b>		
Annual alkalinity (Max, Min)	Not Available	Total surface area (m2)		Type		
Water quality analysis data		Filtration rate (m3/m2/day)		Capacity (m3)		
Available or not	Not Available	Backwashing type		Concrete, On ground		
<b>2. Treatment Systems</b>		Auxiliary backwash system		300		
<b>2.1 Basic Information</b>		Type of valves and gates		<b>3.2 Pipeline</b>		
Design capacity (L/s)	10	Manual		Transmission pipe		
Daily operation hours (hrs)	Not yet operation	<b>2.7 Clear water reservoir</b>		Diameter (mm), Quantity		
Daily production (m3/day)	Not yet operation	Number of reservoirs		Total length (m)		
Type of water treatment	RSF	Total volume (m3)		Distribution pipe		
Type of coagulant being used	AS, PAC	Retention time		Diameter (mm), Quantity		
		<b>2.8 Distribution pump</b>		Total length (m)		
		Type and number		Water Meter		
		Capacity (L/s)		Installation water meter		
		Diameter (mm)		Percentage of malfunction meter (		
				Not yet installation		
				<b>3.3 Water leakage repair</b>		
				Number of staff		
				Available Repair tools		
				Availability of distribution map		
				Availability of leakage repair records		
				Repaired leakages		
				Replacing malfunction water meter		
				Estimated UFW (%)		
				Not yet operation		



Technical Data of SPAM IKK

Province	Central Sulawesi	PDAM	Palu city	SPAM IKK	Palu	2006
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<b>1.Population and Area</b>	B-34
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Total population	110,218 person	Total household	22,044 household
Service area population	110,218 person	Service area household	22,044 household
Population served	1,370 person	Household served	274 household
Coverage	1.2 %	Coverage	1.2 %
Area	61.4 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Intake : Cipta karya city, WTP : Satker Province	Intake, WTP	Satker Province
Distribution	Cipta karya city	Distribution	Cipta karya city

<b>3.Operational status of projects facilities</b>
--

Operation status	
Cause some or all of the running yet	Some running
	[ Delay of distribution pipe construction ]
	[ The IKK is planned to service population who living at new housing area Merpati, however construction not yet.]

<b>4.Operational status</b>
-----------------------------

Hours of operation	24 hours/day	Connections	
Water produced	94,608 m3/year	Social	0
Water sold	65,760 m3/year	Public Hydrant	0
Water sold	20 m3/connection/month	Domestic	274
Unaccounted for water	28,848 m3/year	Government	0
Unaccounted for water	30.5 %	Total	274 connections

[ Operation time is 24 hours a day, but used capacity is 3 l/s because of low connection number ]

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	No
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Not yet take over	Drawings and Maintenance plans	Not yet take over
Education and training for maintenance	Not yet take over	Education and training for maintenance	Not yet take over

Technical Data of SPAM IKK

Province		Central Sulawesi	PDAM		Palu city	SPAM IKK		Palu	2006	
<b>1. Water Source</b>			Chemical for disinfection		Bleaching powder		Head (m)			<i>Not Applied</i>
<b>1.1 Location</b>			Power source		Commercial grid		<b>2.9 Sludge management facilities</b>			
Distance from core area (km)		7	Plant management staff				Back washed water regulation tank			
<b>1.2 Water Source &amp; capacity</b>			Administration		1		Number of tank, Capacity (m3)		<i>Not Applied</i>	
Type	River		Engineer		0		Sludge regulating tank			
Gravity / Pumped	Gravity		Operator		0		Number of tank, Capacity (m3)		<i>Not Applied</i>	
Capacity (L/s)	10		Total		1		Sludge drying facilities type			
<b>1.3 Water Intake Structure</b>			Operation shifts per day				Mechanical dewatering			
Weir			<b>2.2 Plain sedimentation tank</b>				Treating capacity (m3/hour)		<i>Not Applied</i>	
Type of structure	Not Applied		Number of the tanks		<i>Not Applied</i>		Sludge drying beds			
Type of screen	Not Applied		Total surface area (m2)		<i>Not Applied</i>		Number of beds		<i>Not Applied</i>	
Type of Grit chamber	Not Applied		Total tank volume (m3)		<i>Not Applied</i>		Total volume (m3)		<i>Not Applied</i>	
Working condition	Not Applied		<b>2.3 Slow sand filter</b>				Dry cake final disposal place			
Spring Broncapturing			Number of filters		<i>Not Applied</i>		<b>2.10 Operation and maintenance</b>			
Type of structure	Not Applied		Total surface area (m2)		<i>Not Applied</i>		Power fail frequency		15 times/year	
Working condition	Not Applied		Filtration rate (m3/m2/day)		<i>Not Applied</i>		Typical mechanical trouble			
Raw water Collection			<b>2.4 Coagulation facilities</b>				Typical electrical trouble			
Type of collection	Basin		Mixing methods		Rapid mixing, Slow mixing		<b>3. Distribution system</b>			
Type of structure	Concrete		Type of mixer		Hydraulic		<b>3.1 Distribution reservoir</b>			
Size (m)	l= 2, w=2 , h= 2		Working condition		Good		Type		Concrete, On ground	
Type and number of pump	by Gravity		<b>2.5 Water quality test equipments</b>				Capacity (m3)		200	
Working condition			Jar tester		1		<b>3.2 Pipeline</b>			
<b>1.4 Water Quality Data</b>			Turbidity meter		1		Transmission pipe			
Annual Max Turbidity	Not Available		pH meter		1		Diameter (mm), Quantity		100, GI	
Annual Ave Turbidity	Not Available		<b>2.6 Rapid sand filter</b>				Total length (m)		5,050	
Annual pH (Max, Min)	Not Available		Number of filters		4		Distribution pipe			
Annual alkalinity (Max, Mi)	Not Available		Total surface area (m2)		9		Diameter (mm), Quantity		100, PVC, GI	
Water quality analysis data	Not Available		Filtration rate (m3/m2/day)				Total length (m)		2,482	
Available or not	Not Available		Backwashing type		Self washing		Water Meter			
<b>2. Treatment Systems</b>			Auxiliary backwash system		Water only		Installation water meter		- (No data available)	
<b>2.1 Basic Information</b>			Type of valves and gates		Manual		Percentage of malfunction meter (		- (No data available)	
Design capacity (L/s)	10		<b>2.7 Clear water reservoir</b>				<b>3.3 Water leakage repair</b>			
Daily operation hours (hrs)	24		Number of reservoirs		1		Number of staff		1	
Daily production (m3/day)	259		Total volume (m3)		200		Available Repair tools		Sufficient	
Type of water treatment	RSF		Retention time				Availability of distribution map		No	
Type of coagulant being used	AS, PAC		<b>2.8 Distribution pump</b>				Availability of leakage repair records		Yes	
			Type and number		by Gravity		Repaired leakages		48 times/year	
			Capacity (L/s)		<i>Not Applied</i>		Replacing malfunction water meter		60 times/year	
			Diameter (mm)		<i>Not Applied</i>		Estimated UFW (%)		30	

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Takalar	SPAM IKK	Petallassang	2006
<b>1.Population and Area</b>						A-7
Total population	31,229 person	Total household	7,510 household			
Service area population	31,229 person	Service area household	7,510 household			
Population served	6,000 person	Household served	1,200 household			
Coverage	19.2 %	Coverage	16.0 %			
Area	25.31 km <sup>2</sup>					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP			Intake, WTP			
Distribution			Distribution			
<b>3.Operational status of projects facilities</b>						
Operation status		<del>All running</del> , - Some running-, -Not yet operation				
Cause some or all of the running yet		Delay of distribution pipe construction, Delay in coordination with outside agencies.				
		[ The facilities not yet hand-over to PDAM Kota Singkawang as waiting for the establishment of Regional Regulation for PDAM ]				
<b>4.Operational status</b> (No record available, as the distribution pipeline is not yet installed. The construction of distribution pipeline is just scheduled to start within 2010 only)						
Hours of operation			Connections (active only)			
Water produced			Social		Commercial	
Water sold			Public Hydrant		Industry	
Water sold			Domestic		Special	
Unaccounted for water			Government		-	
Unaccounted for water			Total			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions						
Actual existence of repair						
Distributions						
Working conditions						
Actual existence of repair						
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans			Drawings and Maintenance plans			
Education and training for maintenance			Education and training for maintenance			

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Takalar	SPAM IKK	Petallassang	2006
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		80
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	4	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	9	Number of tank, Capacity (m3)	1	
Type	River	Engineer	6	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	3	Number of tank, Capacity (m3)	1	
Capacity (L/s)	20 (IKK)	Total	18	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	4	Mechanical dewatering		
<b>Weir</b>		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		
Type of structure	Not Applied	Number of the tanks	1	Sludge drying beds		
Type of screen	Not Applied	Total surface area		Number of beds		
Type of Grit chamber	Not Applied	Total tank volume		Total volume (m3)		
Working condition	Not Applied	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	Not Applied	<b>2.10 Operation and maintenance</b>		
Type of structure	Not Applied	Total surface area (m2)	Not Applied	Power fail frequency	4 times/year	
Working condition	Not Applied	Filtration rate (m3/m2/day)	Not Applied	Typical mechanical trouble	Pipe, Valve	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Electrics panel	
Type of collection	Well	Mixing methods		<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer		<b>3.1 Distribution reservoir</b>		
Size (m)		Working condition	Good	Type	Concrete	
Type of pump	Submersible	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	200	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	100	pH meter	1	Diameter (mm), Quantity	200, PVC	
Annual Ave Turbidity	40	<b>2.6 Rapid sand filter</b>		Total length (m)	2,414	
Annual Max pH	7.2	Number of filters	1	Distribution pipe		
Annual Min pH	7	Total surface area (m2)	1	Diameter (mm), Quantity	50-100, PVC	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	77,000	
Available or not	Not	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	1200	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	3.3%	
Design capacity (L/s)	20 (+10 +10)	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	24	Number of reservoirs		Number of staff	7	
Daily production (m3/day)	1,728 (Total)	Total volume (m3)		Available Repair tools	Sufficient	
Type of water treatment	Rapid sand filter	Retention time		Availability of distribution map	Yes	
Type of coagulant being used	AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	Centrifugal, 4	Repaired leakages	90/year	
		Capacity (L/s)	10	Replacing malfunction water meter	39/year	
		Diameter (mm)		Estimated UFW (%)	28	

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Takalar	SPAM IKK	Galesong	2008
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<b>1.Population and Area</b>	B-37
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Total population	67,685 person	Total household	16,354 household
Service area population	31,472 person	Service area household	21,730 household
Population served	3,570 person	Household served	714 household
Coverage	11.3 %	Coverage	3.3 %
Area	41.0 km <sup>2</sup>		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	PDAM & Dinas PU Kabupaten	Distribution	Dinas PU Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[Delay of distribution pipe construction ]

<b>4.Operational status</b>
-----------------------------

Hours of operation	12 hours/day	Connections (active only)			
Water produced	72,000 m <sup>3</sup> /year	Social	0	Commercial	0
Water sold	60,000 m <sup>3</sup> /year	Public Hydrant	0	Industry	1
Water sold	30 m <sup>3</sup> /connection/month	Domestic	709	Special	2
Unaccounted for water	12,000 m <sup>3</sup> /year	Government	2	-	
Unaccounted for water	16.7 %	Total	714 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province		South Sulawesi		PDAM		Takalar		SPAM IKK		Galesong		2008	
<b>1. Water Source</b>				Chemical for disinfection				Bleaching powder					
<b>1.1 Location</b>				Power source				Diesel E. Generator					
Distance from core area (km)		6		Plant management staff									
<b>1.2 Water Source &amp; capacity</b>				Administration				0					
Type		Paleko River		Engineer				0					
Gravity / Pumped		Pumped		Operator				2					
Capacity (L/s)		20		Total				2					
<b>1.3 Water Intake Structure</b>				Operation shifts per day									
Weir				<b>2.2 Plain sedimentation tank</b>									
Type of structure		Concrete		Number of the tanks		1							
Type of screen		Not Applied		Total surface area (m <sup>2</sup> )		49							
Type of Grit chamber		Not Applied		Total tank volume (m <sup>3</sup> )		196							
Working condition		Good		<b>2.3 Slow sand filter</b>									
Spring Broncapturing				Number of filters				Not Applied					
Type of structure		Not Applied		Total surface area (m <sup>2</sup> )				Not Applied					
Working condition		Not Applied		Filtration rate (m <sup>3</sup> /m <sup>2</sup> /day)				Not Applied					
Raw water Collection				<b>2.4 Coagulation facilities</b>				Not Applied					
Type of collection		Well		Mixing methods		Rapid mixing, Slow mixing							
Type of structure		Concrete		Type of mixer		Hydraulic							
Size (m)		D2 x h6		Working condition		Good							
Type of pump		Submersible, 2		<b>2.5 Water quality test equipments</b>									
Working condition		Good		Jar tester		1							
				Turbidity meter		1							
				pH meter		1							
<b>1.4 Water Quality Data</b>				<b>2.6 Rapid sand filter</b>									
Annual Max Turbidity		50		Number of filters									
Annual Ave Turbidity		30		Total surface area (m <sup>2</sup> )									
Annual pH (Max, Min)		7.5		Filtration rate (m <sup>3</sup> /m <sup>2</sup> /day)									
Annual alkalinity (Max, Mi)		6.5		Backwashing type		Self washing							
Water quality analysis data				Auxiliary backwash system		Water only							
Available or not		Available		Type of valves and gates		Manual							
<b>2. Treatment Systems</b>				<b>2.7 Clear water reservoir</b>									
<b>2.1 Basic Information</b>				Number of reservoirs		1							
Design capacity (L/s)		20		Total volume (m <sup>3</sup> )		300							
Daily operation hours (hrs)		12		Retention time									
Daily production (m <sup>3</sup> /day)		167		<b>2.8 Distribution pump</b>									
Type of water treatment		RSF		Type and number		Centrifugal, 3							
Type of coagulant being used		AS		Capacity (L/s)		20							
				Diameter (mm)		75							
				Head (m)				80					
				<b>2.9 Sludge management facilities</b>									
				Back washed water regulation tank									
				Number of tank, Capacity (m <sup>3</sup> )				Not Applied					
				Sludge regulating tank									
				Number of tank, Capacity (m <sup>3</sup> )				Not Applied					
				Sludge drying facilities type									
				Mechanical dewatering									
				Treating capacity (m <sup>3</sup> /hour)				Not Applied					
				Sludge drying beds									
				Number of beds				4					
				Total volume (m <sup>3</sup> )									
				Dry cake final disposal place									
				<b>2.10 Operation and maintenance</b>									
				Power fail frequency				7 times/week					
				Typical mechanical trouble				Pipe leakage					
				Typical electrical trouble									
				<b>3. Distribution system</b>									
				<b>3.1 Distribution reservoir</b>									
				Type				Concrete, On ground					
				Capacity (L/s)				300					
				<b>3.2 Pipeline</b>									
				Transmission pipe									
				Diameter (mm), Quantity				200, PVC					
				Total length (m)				750					
				Distribution pipe									
				Diameter (mm), Quantity				50-200, PVC					
				Total length (m)				48,000					
				Water Meter									
				Installation water meter				714					
				Percentage of malfunction meter (				Not any					
				<b>3.3 Water leakage repair</b>									
				Number of staff				2					
				Available Repair tools				Sufficient					
				Availability of distribution map				No					
				Availability of leakage repair records				Yes					
				Repaired leakages				12 /years					
				Replacing malfunction water meter				Not any					
				Estimated UFW (%)				16.7					

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Gowa	SPAM IKK	Petallassang	2008
<b>1.Population and Area</b>						A-8
Total population	20,373 person	Total household	3,790 household			
Service area population	20,373 person	Service area household	3,131 household			
Population served	3,168 person	Household served	754 household			
Coverage	15.5 %	Coverage	24.1 %			
Area	0.85 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP			Intake, WTP			
Distribution			Distribution			
<b>3.Operational status of projects facilities</b>						
Operation status		<del>All running</del> , - Some running-, - Not yet operation				
Cause some or all of the running yet		Delay of distribution pipe construction, Delay in coordination with outside agencies.				
		[ The facilities not yet hand-over to PDAM Kota Singkawang as waiting for the establishment of Regional Regulation for PDAM ]				
<b>4.Operational status</b> (No record available, as the distribution pipeline is not yet installed. The construction of distribution pipeline is just scheduled to start within 2010 only)						
Hours of operation			Connections (active only)			
Water produced			Social		Commercial	
Water sold			Public Hydrant		Industry	
Water sold			Domestic		Special	
Unaccounted for water			Government		-	
Unaccounted for water			Total			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions						
Actual existence of repair						
Distributions						
Working conditions						
Actual existence of repair						
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans			Drawings and Maintenance plans			
Education and training for maintenance			Education and training for maintenance			

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Gowa	SPAM IKK	Petallassang	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		80
<b>1.1 Location</b>		Power source	Commercial grit	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	10	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	3	Number of tank, Capacity (m3)		
Type	River	Engineer	3	Sludge regulating tank		
Gravity / Pumped	Gravity	Operator	4	Number of tank, Capacity (m3)		
Capacity (L/s)	20	Total	10	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		
Type of structure	Concrete (dam)	Number of the tanks	1	Sludge drying beds		
Type of screen		Total surface area	30	Number of beds	4	
Type of Grit chamber		Total tank volume	60	Total volume (m3)	15	
Working condition		<b>2.3 Slow sand filter</b>		Dry cake final disposal place	open land	
Spring Broncaptering		Number of filters	Not Applied	<b>2.10 Operation and maintenance</b>		
Type of structure	Not Applied	Total surface area (m2)	Not Applied	Power fail frequency	8	
Working condition	Not Applied	Filtration rate (m3/m2/day)	Not Applied	Typical mechanical trouble	Pump & valve	
Well		<b>2.4 Coagulation facilities</b>		Typical electrical trouble	Electrics panel	
Type	Not Applied	Mixing methods	Rapid mixing	<b>3. Distribution system</b>		
Diameter (mm)	Not Applied	Type of mixer	mechanical	<b>3.1 Distribution reservoir</b>		
Depth(m)	Not Applied	Working condition	good	Type	Concrete, ground	
Discharge rate(L/s)	Not Applied	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	480	
SWL / PWL(m)	Not Applied	Jar tester	1	<b>3.2 Pipeline</b>		
Operation hours	Not Applied	Turbidity meter	1	Transmission pipe		
Type of pump	Not Applied	pH meter	1	Diameter (mm), Quantity	200, PVC	
Working condition	Not Applied	<b>2.6 Rapid sand filter</b>		Total length (m)	4,200	
<b>1.4 Water Quality Data</b>		Number of filters	4	Distribution pipe		
Annual Max Turbidity	1000	Total surface area (m2)		Diameter (mm), Quantity	40-200, PVC	
Annual Ave Turbidity	120	Filtration rate (m3/m2/day)		Total length (m)	45,762	
Annual Max pH	7.5	Backwashing type	Self washing	Water Meter		
Annual Min pH	7.2	Auxiliary backwash system		Installation water meter	767	
Water quality analysis data		Type of valves and gates	Manual	Percentage of malfunction meter (	No data	
Available or not	Available	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
<b>2. Treatment Systems</b>		Number of reservoirs		Number of staff	10	
<b>2.1 Basic Information</b>		Total volume (m3)		Available Repair tools	Available	
Design capacity (L/s)	20	Retention time		Availability of distribution map	Available	
Daily operation hours (hrs)	10	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Available	
Daily production (m3/day)		Type and number	Centrifugal, 3	Repaired leakages	84	
Type of water treatment	RSF (Package)	Capacity (L/s)	10	Replacing malfunction water meter		
Type of coagulant being used	AS	Diameter (mm)		Estimated UFW (%)		



Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Jenepono	SPAM IKK	Parapa	2007
<b>1.Population and Area</b>						B-36
Total population	105,425 person	Total household	24,026 household			
Service area population	69,264 person	Service area household	15,461 household			
Population served	person	Household served	5,560 household			
Coverage	%	Coverage	36.0 %			
Area	147.0 km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Central Satker		Intake, WTP	Central Satker		
Distribution	-		Distribution	-		
<b>3.Operational status of projects facilities</b>						
Operation status		All running				
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operation	24 hours/day	Connections (active only)				
Water produced	978,537 m3/year	Social	62	Commercial	6	
Water sold	750,808 m3/year	Public Hydrant	85	Industry	1	
Water sold	11.59 m3/connection/month	Domestic	5,146	Special	0	
Unaccounted for water	227,729 m3/year	Government	98	-		
Unaccounted for water	23.3 %	Total	5,398 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Good				
Actual existence of repair		Yes				
Distributions						
Working conditions		Good				
Actual existence of repair		Yes				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	No	Drawings and Maintenance plans		-		
Education and training for maintenance	No	Education and training for maintenance		-		

Technical Data of SPAM IKK

Province	South Sulawesi	PDAM	Jeneponto	SPAM IKK	Parapa	2007
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		
<b>1.1 Location</b>		Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	5	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Kelara River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	8	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	20 (+20+20+10)	Total	8	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	3	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	Concrete	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	4	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		
Working condition	Good	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Pipe leakage	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Well	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	D3 x h7	Working condition	Good	Type	Concrete, On ground	
Type of pump	Submersible, 2	<b>2.5 Water quality test equipments</b>		Capacity (L/s)	200	
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	0	Transmission pipe		
Annual Max Turbidity	Not Available	pH meter	1	Diameter (mm), Quantity	<i>Not Applied (150, PVC)</i>	
Annual Ave Turbidity	Not Available	<b>2.6 Rapid sand filter</b>		Total length (m)	<i>Not Applied (150)</i>	
Annual pH (Max, Min)	Not Available	Number of filters	6	Distribution pipe		
Annual alkalinity (Max, Min)	Not Available	Total surface area (m2)	10.14	Diameter (mm), Quantity	<i>Not Applied (25-150, PVC)</i>	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	<i>Not Applied (13,693)</i>	
Available or not	Not Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	No Data	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Design capacity (L/s)	20	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	24	Number of reservoirs	1	Number of staff	12	
Daily production (m3/day)		Total volume (m3)	200	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	by Gravity	Repaired leakages	900 /years	
		Capacity (L/s)		Replacing malfunction water meter	300 /years	
		Diameter (mm)		Estimated UFW (%)	23.3	

Technical Data of SPAM IKK

Province	Southeast Sulawesi	PDAM	Kolaka	SPAM IKK	Latambaga	2008
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<b>1.Population and Area</b>	B-38
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Total population	54,558 person	Total household	12,443 household
Service area population	54,558 person	Service area household	12,443 household
Population served	24,720 person	Household served	4,944 household
Coverage	45.3 %	Coverage	39.7 %
Area	515.5 km2		

[ Including three existing WTPs 1) WTP 50 lps ; 2) WTP 20 lps (in 1997); WTP 50 lps (in 2003).]

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Satker Pusat	Intake, WTP	Satker Pusat
Distribution	PDAM	Distribution	Dinas Cipta Karya Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	Not running
Cause some or all of the running yet	[Poor performance of steel WTP package at dozing injection pipe]

<b>4.Operational status</b>
-----------------------------

Hours of operation	16 hours/day	Connections (active only)	
Water produced	2,956,500 m3/year	Social	80
Water sold	1,212,165 m3/year	Commercial	383
Water sold	20 m3/connection/month	Public Hydrant	0
Unaccounted for water	1,744,335 m3/year	Domestic	4,944
Unaccounted for water	59.0 %	Special	3
		Government	74
		Total	5,486 connections

[ Including three existing WTPs 1) WTP 50 lps ; 2) WTP 20 lps (in 1997); WTP 50 lps (in 2003).]

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Poor
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Southeast Sulawesi	PDAM	Kolaka	SPAM IKK	Latambaga	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		
<b>1.1 Location</b>		Power source	Diesel E. Generator	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	5	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	0	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Type	Kolaka River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	2	Number of tank, Capacity (m3)	<i>Not Applied</i>	
Capacity (L/s)	150	Total	2	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day		Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)	<i>Not Applied</i>	
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds	1	
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)	8	
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency	3 times/month	
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble	Pipe leakage	
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		
Type of collection	Basin	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	L=5, W=4, H=3	Working condition	Good	Type	Concrete, On ground	
Type of pump	Submersible, 2	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	200	pH meter	1	Diameter (mm), Quantity	150-300, PVC, GI, ACP	
Annual Ave Turbidity	15	<b>2.6 Rapid sand filter</b>		Total length (m)	10,960	
Annual pH (Max, Min)	7	Number of filters	3	Distribution pipe		
Annual alkalinity (Max, Min)	Not Available	Total surface area (m2)	5	Diameter (mm), Quantity	50-300, PVC, GI, ACP	
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)	83,265	
Available or not	Available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter	No Data	
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (	No Data	
Design capacity (L/s)	20 (+50+20+10)	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	16	Number of reservoirs	1	Number of staff	2	
Daily production (m3/day)	540	Total volume (m3)	300	Available Repair tools	Sufficient	
Type of water treatment	RSF	Retention time		Availability of distribution map	No	
Type of coagulant being used	PAC, AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records	Yes	
		Type and number	by Gravity	Repaired leakages	360 /years	
		Capacity (L/s)		Replacing malfunction water meter	1500 /years	
		Diameter (mm)		Estimated UFW (%)	59.0	

Technical Data of SPAM IKK

Province	Sulawesi Utara	PDAM	Mnahasa Utara	SPAM IKK	Binuang	2006
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<b>1.Population and Area</b>	B-39
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Total population	46,024 person	Total household	11,506 household
Service area population	No Data person	Service area household	No Data household
Population served	908 person	Household served	227 household
Coverage	No Data %	Coverage	No Data %
Area	203.5 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Provincial Satker	Intake, WTP	Provincial Satker
Distribution	Dinas Kabupaten	Distribution	Dinas Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	All running
Cause some or all of the running yet	

<b>4.Operational status</b>
-----------------------------

Hours of operation	24 hours/day	Connections (active only)	
Water produced	No Data m3/year	Social	2
Water sold	No Data m3/year	Commercial	0
Water sold	No Data m3/connection/month	Public Hydrant	5
Unaccounted for water	No Data m3/year	Industry	0
Unaccounted for water	No Data %	Domestic	220
		Special	0
		Government	0
		Total	227 connections

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Poor [ Due to lack of badjets, no more chemical inputs are used after the chemical input stocks run out ]
Actual existence of repair	Yes
Distributions	
Working conditions	Fair [ (mostly are old pipe) and some leakages are occurred and in some points have been illegally tapped by people.]
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
---

Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province		PDAM		SPAM IKK	
Sulawesi Utara		Mnahasa Utara		Binuang	
				2006	
<b>1. Water Source</b>		Chemical for disinfection		Bleaching powder	
<b>1.1 Location</b>		Power source		Diesel E. Genrator	
Distance from core area (km)	20	Plant management staff			
<b>1.2 Water Source &amp; capacity</b>		Administration		2	
Type	Spring	Engineer		2	
Gravity / Pumped	Gravity	Operator		0	
Capacity (L/s)	10 (+5)	Total		4	
<b>1.3 Water Intake Structure</b>		Operation shifts per day		1	
Weir		<b>2.2 Plain sedimentation tank</b>			
Type of structure	Not Applied	Number of the tanks		1	
Type of screen	Not Applied	Total surface area (m2)		8	
Type of Grit chamber	Not Applied	Total tank volume (m3)		20	
Working condition	Not Applied	<b>2.3 Slow sand filter</b>			
Spring Broncapturing		Number of filters		Not Applied	
Type of structure	Concrete	Total surface area (m2)		Not Applied	
Working condition	Good	Filtration rate (m3/m2/day)		Not Applied	
Raw water Collection		<b>2.4 Coagulation facilities</b>			
Type of collection	Basin	Mixing methods		Rapid mixing, Slow mixing	
Type of structure	Concrete	Type of mixer		Hydraulic	
Size (m)	2x2x2, 6x5x3	Working condition		Not used now	
Type of pump	Not Applied	<b>2.5 Water quality test equipments</b>			
Working condition	Good	Jar tester		Not Applied	
<b>1.4 Water Quality Data</b>		Turbidity meter		Not Applied	
Annual Max Turbidity	Not measured	pH meter		Not Applied	
Annual Ave Turbidity	Not measured	<b>2.6 Rapid sand filter</b>			
Annual pH (Max, Min)	Not measured	Number of filters		4	
Annual alkalinity (Max, Min)	Not measured	Total surface area (m2)		3	
Water quality analysis data		Filtration rate (m3/m2/day)		144	
Available or not	Not available	Backwashing type		Self washing	
<b>2. Treatment Systems</b>		Auxiliary backwash system		Water only	
<b>2.1 Basic Information</b>		Type of valves and gates		Manual	
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>			
Daily operation hours (hrs)	24	Number of reservoirs		1	
Daily production (m3/day)	432 + 864	Total volume (m3)		50	
Type of water treatment	RSF	Retention time		3	
Type of coagulant being used	AS (not used now)	<b>2.8 Distribution pump</b>			
		Type and number		Not Applied (Gravity)	
		Capacity (L/s)		Not Applied (Gravity)	
		Diameter (mm)		Not Applied (Gravity)	
		<b>2.9 Sludge management facilities</b>			
		Head (m)		Not Applied (Gravity)	
		Back washed water regulation tank			
		Number of tank, Capacity (m3)		Not Applied	
		Sludge regulating tank			
		Number of tank, Capacity (m3)		Not Applied	
		Sludge drying facilities type			
		Mechanical dewatering			
		Treating capacity (m3/hour)		Not Applied	
		Sludge drying beds			
		Number of beds		Not Applied	
		Total volume (m3)		Not Applied	
		Dry cake final disposal place		drainage canal	
		<b>2.10 Operation and maintenance</b>			
		Power fail frequency			
		Typical mechanical trouble		Pipe leakage	
		Typical electrical trouble		Genset broken	
		<b>3. Distribution system</b>			
		<b>3.1 Distribution reservoir</b>			
		Type		Concrete, On ground	
		Capacity (L/s)		8 + 50	
		<b>3.2 Pipeline</b>			
		Transmission pipe			
		Diameter (mm), Quantity		150-200, GI	
		Total length (m)		142	
		Distribution pipe			
		Diameter (mm), Quantity		75-200, PVC	
		Total length (m)		13,693	
		Water Meter			
		Installation water meter		227	
		Percentage of malfunction meter (%)		- (No data available)	
		<b>3.3 Water leakage repair</b>			
		Number of staff		3	
		Available Repair tools		Sufficient	
		Availability of distribution map		Yes	
		Availability of leakage repair records		No	
		Repaired leakages		12/yaer	
		Replacing malfunction water meter		-	
		Estimated UFW (%)		- (No data available)	

Technical Data of SPAM IKK

Province	Sulawesi Utara	PDAM	Mnahasa Selatan	SPAM IKK	Amurang	2006
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<b>1.Population and Area</b>	B-40
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Total population	14,293 person	Total household	3,963 household
Service area population	3,615 person	Service area household	944 household
Population served	817 person	Household served	215 household
Coverage	22.6 %	Coverage	22.8 %
Area	22.7 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	Dinas Kabupaten	Distribution	Dinas Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running [ WTP only used 50% of capacity since distribution demand only need half of water input ]
Cause some or all of the running yet	

<b>4.Operational status</b>
-----------------------------

Hours of operation	24 hours/day	Connections (active only)			
Water produced	No Data m3/year	Social	6	Commercial	0
Water sold	No Data m3/year	Public Hydrant	16	Industry	0
Water sold	No Data m3/connection/month	Domestic	193	Special	0
Unaccounted for water	No Data m3/year	Government	0		
Unaccounted for water	No Data %	Total	215 connections		

[Operation has just start since 1 month ago, therefore there is no official record about operation. ]

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Fair [ some leakage were occurred and illegal tapping exist in some place. ]
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	Available	Drawings and Maintenance plans	No
Education and training for maintenance	yes by contractor	Education and training for maintenance	No





Technical Data of SPAM IKK

Province	Gorontalo	PDAM	Bone Bolango	SPAM IKK	Suwawa	2006
<b>1.Population and Area</b>						B-41
Total population	19,700 person	Total household	3,946 household			
Service area population	18,670 person	Service area household	3,697 household			
Population served	2,468 person	Household served	494 household			
Coverage	13.2 %	Coverage	13.4 %			
Area	km2					
<b>2.Design and construction organizations</b>						
Design organizations			Construction organizations			
Intake, WTP	Satker Pusat	Intake, WTP		Satker Province		
Distribution	Dinas PU Kabupaten	Distribution		Dinas PU Kabupaten		
<b>3.Operational status of projects facilities</b>						
Operation status		Not running [ On trial operation stage ]				
Cause some or all of the running yet						
<b>4.Operational status</b>						
Hours of operation	Not oprated yet hours/day	Connections (active only)				
Water produced	Not oprated yet m3/year	Social	9	Commercial	16	
Water sold	Not oprated yet m3/year	Public Hydrant	2	Industry	0	
Water sold	Not oprated yet m3/connection/month	Domestic	494	Special	0	
Unaccounted for water	Not oprated yet m3/year	Government	24	-		
Unaccounted for water	Not oprated yet %	Total	545 connections			
<b>5.Maintenance status</b>						
Intake, WTP						
Working conditions		Not oprated yet				
Actual existence of repair		Not oprated yet				
Distributions						
Working conditions		Not oprated yet				
Actual existence of repair		Not oprated yet				
<b>6.Situation to take over maintenance agency (PDAM)</b>						
Intake, WTP (from Satkar)			Distributions (from Dinas PU)			
Drawings and Maintenance plans	Yes	Drawings and Maintenance plans			No	
Education and training for maintenance	Yes	Education and training for maintenance			No	

Technical Data of SPAM IKK

Province		Gorontalo		PDAM	Bone Bolango	SPAM IKK	Suwawa	2006
<b>1. Water Source</b>		Chemical for disinfection		Not operated yet		Head (m)		<i>Not Applied (Gravity)</i>
<b>1.1 Location</b>		Power source		Commercial grid		<b>2.9 Sludge management facilities</b>		
Distance from core area (km)		Plant management staff				Back washed water regulation tank		
5		Administration		Not operated yet		Number of tank, Capacity (m3)		<i>Not Applied</i>
<b>1.2 Water Source &amp; capacity</b>		Engineer		Not operated yet		Sludge regulating tank		
Type		Operator		Not operated yet		Number of tank, Capacity (m3)		<i>Not Applied</i>
River		Total		Not operated yet		Sludge drying facilities type		
Gravity / Pumped		Operation shifts per day		Not operated yet		Mechanical dewatering		
Gravity		<b>2.2 Plain sedimentation tank</b>				Treating capacity (m3/hour)		<i>Not Applied</i>
Capacity (L/s)		Number of the tanks		1		Sludge drying beds		
60		Total surface area (m2)		32		Number of beds		<i>Not Applied</i>
<b>1.3 Water Intake Structure</b>		Total tank volume (m3)		70		Total volume (m3)		<i>Not Applied</i>
<b>Weir</b>		<b>2.3 Slow sand filter</b>				Dry cake final disposal place		Open land
Type of structure		Number of filters		<i>Not Applied</i>		<b>2.10 Operation and maintenance</b>		
Concrete		Total surface area (m2)		<i>Not Applied</i>		Power fail frequency		Not operated yet
Type of screen		Filtration rate (m3/m2/day)		<i>Not Applied</i>		Typical mechanical trouble		Not operated yet
No screen		<b>2.4 Coagulation facilities</b>				Typical electrical trouble		Not operated yet
Type of Grit chamber		Mixing methods		Rapid mixing, Slow mixing		<b>3. Distribution system</b>		
Working condition		Type of mixer		Hydraulic		<b>3.1 Distribution reservoir</b>		
Good		Working condition		Not used now		Type		Concrete, On ground
Spring Broncapturing		<b>2.5 Water quality test equipments</b>				Capacity (L/s)		300
Type of structure		Jar tester		1		<b>3.2 Pipeline</b>		
<i>Not Applied</i>		Turbidity meter		1		Transmission pipe		
Working condition		pH meter		1		Diameter (mm), Quantity		200, PVC, GI, HDPE
<i>Not Applied</i>		<b>2.6 Rapid sand filter</b>				Total length (m)		1,028
Raw water Collection		Number of filters		8		Distribution pipe		
Type of collection		Total surface area (m2)		12		Diameter (mm), Quantity		50-200, PVC
<i>Not Applied</i>		Filtration rate (m3/m2/day)				Total length (m)		9,000
Type of structure		Backwashing type		Self washing		Water Meter		
<i>Not Applied</i>		Auxiliary backwash system		Water only		Installation water meter		494
Size (m)		Type of valves and gates		Manual		Percentage of malfunction meter (		Not operated yet
<i>Not Applied</i>		<b>2.7 Clear water reservoir</b>				<b>3.3 Water leakage repair</b>		
Type of pump		Number of reservoirs		1		Number of staff		Not operated yet
<i>Not Applied</i>		Total volume (m3)		300		Available Repair tools		Not operated yet
Working condition		Retention time				Availability of distribution map		Not operated yet
<i>Not Applied</i>		<b>2.8 Distribution pump</b>				Availability of leakage repair records		Not operated yet
<b>1.4 Water Quality Data</b>		Type and number		<i>Not Applied (Gravity)</i>		Repaired leakages		Not operated yet
Annual Max Turbidity		Capacity (L/s)		<i>Not Applied (Gravity)</i>		Replacing malfunction water meter		Not operated yet
Not available		Diameter (mm)		<i>Not Applied (Gravity)</i>		Estimated UFW (%)		Not operated yet
Annual Ave Turbidity								
Not available								
Annual pH (Max, Min)								
Not available								
Annual alkalinity (Max, Mi								
Not available								
Water quality analysis data								
Available or not								
Not available								
<b>2. Treatment Systems</b>								
<b>2.1 Basic Information</b>								
Design capacity (L/s)								
20								
Daily operation hours (hrs)								
Not operated yet								
Daily production (m3/day)								
Not operated yet								
Type of water treatment								
RSF								
Type of coagulant being used								

Technical Data of SPAM IKK

Province	Gorontalo	PDAM	North Gorontalo	SPAM IKK	Kwandang	2008
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<b>1.Population and Area</b>	B-42
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Total population	34,648 person	Total household	9,058 household
Service area population	10,667 person	Service area household	2,849 household
Population served	2,850 person	Household served	570 household
Coverage	26.7 %	Coverage	20.0 %
Area	336.8 km2		

<b>2.Design and construction organizations</b>
--

Design organizations		Construction organizations	
Intake, WTP	Central Satker	Intake, WTP	Central Satker
Distribution	Dinas Kabupaten	Distribution	Dinas Kabupaten

<b>3.Operational status of projects facilities</b>
--

Operation status	Some running
Cause some or all of the running yet	[Delay of distribution pipes and house connection]
	[Adjusted to the requirement of house connection which is still less comparing to the capacity of WTP]

<b>4.Operational status</b>
-----------------------------

Hours of operation	10 hours/day	Connections (active only)			
Water produced	No Data m3/year	Social	26	Commercial	1
Water sold	61,924 m3/year	Public Hydrant	34	Industry	5
Water sold	No Data m3/connection/month	Domestic	326	Special	1
Unaccounted for water	12 m3/year	Government	11	-	
Unaccounted for water	No Data %	Total	404 connections		

<b>5.Maintenance status</b>
-----------------------------

Intake, WTP	
Working conditions	Good
Actual existence of repair	Yes
Distributions	
Working conditions	Good
Actual existence of repair	Yes

<b>6.Situation to take over maintenance agency (PDAM)</b>
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Intake, WTP (from Satkar)		Distributions (from Dinas PU)	
Drawings and Maintenance plans	No	Drawings and Maintenance plans	No
Education and training for maintenance	No	Education and training for maintenance	No

Technical Data of SPAM IKK

Province	Gorontalo	PDAM	North Gorontalo	SPAM IKK	Kwandang	2008
<b>1. Water Source</b>		Chemical for disinfection	Bleaching powder	Head (m)		<i>Not Applied (Gravity)</i>
<b>1.1 Location</b>		Power source	Commercial grid	<b>2.9 Sludge management facilities</b>		
Distance from core area (km)	10	Plant management staff		Back washed water regulation tank		
<b>1.2 Water Source &amp; capacity</b>		Administration	1	Number of tank, Capacity (m3)		<i>Not Applied</i>
Type	Poso River	Engineer	0	Sludge regulating tank		
Gravity / Pumped	Pumped	Operator	1	Number of tank, Capacity (m3)		<i>Not Applied</i>
Capacity (L/s)	10	Total	2	Sludge drying facilities type		
<b>1.3 Water Intake Structure</b>		Operation shifts per day	1	Mechanical dewatering		
Weir		<b>2.2 Plain sedimentation tank</b>		Treating capacity (m3/hour)		<i>Not Applied</i>
Type of structure	<i>Not Applied</i>	Number of the tanks	<i>Not Applied</i>	Sludge drying beds		
Type of screen	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Number of beds		2
Type of Grit chamber	<i>Not Applied</i>	Total tank volume (m3)	<i>Not Applied</i>	Total volume (m3)		24
Working condition	<i>Not Applied</i>	<b>2.3 Slow sand filter</b>		Dry cake final disposal place		
Spring Broncapturing		Number of filters	<i>Not Applied</i>	<b>2.10 Operation and maintenance</b>		
Type of structure	<i>Not Applied</i>	Total surface area (m2)	<i>Not Applied</i>	Power fail frequency		Everyday
Working condition	<i>Not Applied</i>	Filtration rate (m3/m2/day)	<i>Not Applied</i>	Typical mechanical trouble		Pipe leakage
Raw water Collection		<b>2.4 Coagulation facilities</b>		Typical electrical trouble		Un-stable voltage of PLN
Type of collection	Well	Mixing methods	Rapid mixing, Slow mixing	<b>3. Distribution system</b>		
Type of structure	Concrete	Type of mixer	Hydraulic	<b>3.1 Distribution reservoir</b>		
Size (m)	D2 x H4	Working condition	Not used now	Type		Concrete, On ground
Type of pump	Submersible, 2	<b>2.5 Water quality test equipments</b>		Capacity (L/s)		250
Working condition	Good	Jar tester	1	<b>3.2 Pipeline</b>		
<b>1.4 Water Quality Data</b>		Turbidity meter	1	Transmission pipe		
Annual Max Turbidity	Not available	pH meter	1	Diameter (mm), Quantity		200, HDPE
Annual Ave Turbidity	Not available	<b>2.6 Rapid sand filter</b>		Total length (m)		1,500
Annual pH (Max, Min)	Not available	Number of filters	8	Distribution pipe		
Annual alkalinity (Max, Min)	Not available	Total surface area (m2)		Diameter (mm), Quantity		<i>Not Applied</i>
Water quality analysis data		Filtration rate (m3/m2/day)		Total length (m)		<i>Not Applied</i>
Available or not	Not available	Backwashing type	Self washing	Water Meter		
<b>2. Treatment Systems</b>		Auxiliary backwash system	Water only	Installation water meter		<i>Not Applied</i>
<b>2.1 Basic Information</b>		Type of valves and gates	Manual	Percentage of malfunction meter (%)		<i>Not Applied</i>
Design capacity (L/s)	10	<b>2.7 Clear water reservoir</b>		<b>3.3 Water leakage repair</b>		
Daily operation hours (hrs)	10	Number of reservoirs	1	Number of staff		2
Daily production (m3/day)		Total volume (m3)	250	Available Repair tools		Sufficient
Type of water treatment	RSF	Retention time		Availability of distribution map		No
Type of coagulant being used	AS	<b>2.8 Distribution pump</b>		Availability of leakage repair records		No
		Type and number	<i>Not Applied (Gravity)</i>	Repaired leakages		No record
		Capacity (L/s)	<i>Not Applied (Gravity)</i>	Replacing malfunction water meter		No record
		Diameter (mm)	<i>Not Applied (Gravity)</i>	Estimated UFW (%)		No record

### **APPENDIX 3 BASIC DATA OF PDAM AND BLU**

<i>Dairi</i>	<i>Madiun</i>
<i>Asahan</i>	<i>Bangkalan</i>
<i>Solok</i>	<i>Kediri</i>
<i>Kota Sawahlunto</i>	<i>Bantul</i>
<i>Rokan Hulu</i>	<i>Sleman</i>
<i>Kuantan Singingi</i>	<i>Pontianak</i>
<i>Muaro Jambi</i>	<i>Singkawang</i>
<i>Batang Hari</i>	<i>Penajam Paser Utara</i>
<i>Banyuasin</i>	<i>Kutai Kertanegara</i>
<i>Lematang Enim</i>	<i>Banjarbaru</i>
<i>Lampung Selatan</i>	<i>Tapin</i>
<i>Rejang Lebong</i>	<i>Katingan</i>
<i>Rejang Lebong</i>	<i>Gunung Mas</i>
<i>Serang</i>	<i>Donggala</i>
<i>Kuningan</i>	<i>Donggala</i>
<i>Kuningan</i>	<i>Palu</i>
<i>Cirebon</i>	<i>Takalar</i>
<i>Kota Bogor</i>	<i>Takalar</i>
<i>Grobogan</i>	<i>Gowa</i>
<i>Grobogan</i>	<i>Jeneponto</i>
<i>Kendal</i>	<i>Kolaka</i>
<i>Boyolali</i>	<i>Minahasa Utara</i>
<i>Rembang</i>	<i>Minahasa Selatan</i>
<i>Tuban</i>	<i>Bone Bolango</i>
<i>Ponorogo</i>	<i>Gorontalo Utara</i>

**Name of PDAM:** PDAM Tirta Nciho Kabupaten Dairi; **IKK:** Sumbul  
**Number of SPAM IKK:** (2) for whole PDAM service areas  
**Number of House Connection:** ( 10,000 ) connections  
**Number of Staff (PDAM)** (91 ) **Staff ratio: 9.1 (Staff/1,000 connections)**  
**No. of Water Resources:** 8 (Rivers)  
**Year of Establishment:** 1972

Issues	Description	Countermeasures
Project Preparation	Design	Designed was prepared by Central Satker
	Land Acquisition	The land was granted by community
	Water Right	According to Provincial Satker No SIPA is required, but currently, due to the location of intake in the conservation forest, then it needs permit from Minsitry of Forestry for using the area for the intake
Operation	Operation Hours	For the SPAM IKK hasn't been operated yet. Only for the existing IKK Sumbul is operated 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Supervisory/Control Board is conducted monitoring activities.
	Staffing:	1 chemical and sanitation engineer (Director), but some staffs have experienced in water supply system; Diploma: 3 staffs; Junior High School: 60; Junior High & Elementary School: 17
Accounting	Salary	65% of total cost
	Electricity	20% of total cost
	Chemicals, spare parts,	15% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, PERPAMSI invited them for training every year
	Cooperation with other PDAM	Water Supply Center in Central gov (Bekasi) has invited them to attend the training but required transportation cost
Tariffs	Minimum tariff for non commercial	Rp. 450/m3
	Average sales price	660/m3
	Average Production Cost	Rp. 1,095/m3
	Other income	New house connection & fine for delay payment
	Tariff change period	Based on regulation in every 4 years, but it haven't changed since 2002, recently PDAM proposed every 2 years since it never changed since 2002. PDAM has proposed the new tariff and expected will be approve in June 2010.
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	For SPAM IKK Sumbul Project has not operated yet

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	Almost all have been installed, except the replacement	
	Meter reading	Monthly	
	Bill delivery	To the "loket" in PDAM office	
	Collection system		Currently through "loket" in PDAM Office
			There is an agreement with "Bank Sumut" to collect the payment from customers since PDAM get loan around Rp. 5 billion, and will be socialized soon Through chief of IKK in IKK unit
	Collection rate of billed	80%	
	Penalty Rules	Rp. 3,000/month, after giving warning letter after 2 months being unpaid shall be cutoff	
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati	
	Assets	Intake, W/T, Transmission	Grant of Central Government
Depreciation of Intake, W/T, Transmission		They put it as the depreciation cost in their financial statement, but for the project which is just temporary hand over for management will not	
SPAM IKK (IKK Sumbul)	Unit staff	Just key keeper, not operating yet	
	Existing	470 HC, from existing IKK Sumbul, the new and some replacement pipe were implemented under the "Dana Stimulus Fiscal" by Dinas Tata Ruang & Cipta Karya Kabupaten	
	Public hydrant	-	

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board and then submit to Bupati. Bupati proposed to DPRD (legislative house of Kabupaten) and then if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	No

**Name of PDAM:** PDAM Tirta Silaupiasa Kabupaten Asahan; **IKK: Kisaran Timur**  
**Number of SPAM IKK:** (2) for whole PDAM service areas  
**Number of House Connection:** ( 9,750 ) connections  
**Number of Staff (PDAM)** ( 156 ) **Staff ratio: 16.0** (Staff/1,000 connections)  
**No. of Water Resources:** 32 (3 Rivers and 29 deep wells)  
**Year of Establishment:** 1990

Issues	Description	Countermeasures
Project Preparation	Design	Designed was prepared by Provincial Satker
	Land Acquisition	The land was belonged to Local Gov
	Water Right	No SIPA is required, just statement letter from Bupati confirmed that the land is belonged to Local Gov.
Operation	Operation Hours	24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	By Supervisory Board
	Staffing:	156 persons (technical/administration staffs: 117; accounting: 26; customer relationship: 13)
Accounting	Salary	35% of total cost
	Electricity	25% of total cost
	Chemicals, spare parts,	5% of total cost; remaining for O&M
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, yearly, but recent 2 years PDAM didn't sent any participant due to budget limitation
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,440/m3
	Average sales price	Rp. 2,500/m3
	Average Production Cost	Rp. 1,850/m3
	Other income	Rp. 875,000-Rp. 1,075,000 based on the house location
	Tariff change period	The existing tariff from 2006, usually every 4 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 27,500/HH/month

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	Almost all have been installed	
	Meter reading	Monthly	
	Bill delivery	To the "loket" in PDAM office and Chief of Unit in IKK	
	Collection system		Mostly through the "loket" in the PDAM Office
			No collection system through Bank For IKK collected by Chief of Unit
	Collection rate of billed	80%	
	Penalty Rules	Basically no impose since the customers who didn't pay due to they didn't get water supply	
Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati		
Assets	Intake, W/T, Transmission	Grant of Central Government	
	Depreciation of Intake, W/T, Transmission	They put it as the depreciation cost in their financial statement, but for the project which is just temporary hand over for management will not depreciated	
SPAM IKK (IKK Kisaran Timur)	Unit staff	7 staffs	
	Existing	909 HC	
	Public hydrant	-	

Item	
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board and then submit to Bupati. Bupati proposed to DPRD (legislative house of Kabupaten) and then if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	No

**Name of PDAM:** PDAM SOLOK, West Sumatra Province ; IKK: Nagari Kotosani  
**Number of SPAM IKK:** 11 for whole PDAM service areas  
**Number of House Connection:** ( 7.905 ) connections  
**Number of Staff (PDAM)** ( 104 ) **Staff ratio:** 13.2 (Staff/1,000 connections)  
**No. of Water Resources:** 19 (River:6 and well:13)  
**Year of Establishment:** 1983

Issues	Description	Countermeasures
Project Preparation	Design	DED was conducted by Satker Province using APBD 1 (Province) budget
	Land Acquisition	The land was bought by PDAM using Kabupaten budget
	Water Right	No SIPA is required, coordination with Dinas water resources was carried out
Operation	Operation Hours	Production : 12 hours/day, Distribution : 12 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Manag.: 3 staffs; accounting: 37 staffs; Adm&Finance: 37, branch off: 47 staffs
Accounting	Salary	57% of total cost
	Electricity	1% of total cost
	Chemicals, spare parts,	0.12% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	PDAM Solok send the staff to follow training by PERPAMSI minimal 1 person/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 900/m3 see form 2(3)
	Average sales price	Rp. 1,470/m3
	Average Production Cost	Rp. 1,673/m3
	Other income	Rp. 811,000/HC
	Tariff change period	Tariff review in every 2 year, since 2007 there is not tariff change
	Tariff change process	Proposed new tariff from PDAM is discussed with control board, then the result is brought to Bupati to get approval by parlemen (DPRD) knowing
	Average payment /HH	Rp. 24,700

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% have been installed
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill at IKK unit, than IKK unit staff send to bank.
	Collection rate of billed	81%,
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; first 3 months, connection is temporary disconnected; 2nd 3 months connection is permanent disconnected, see form 2(3)
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	The assets are national government investment (satker pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Nagari Kotosani)	Unit staff	1 person as guard
	Existing	-
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Solok Decree No. 321/BUP - 2007
Approval Process	PDAM determine the tariff, then those tariff discussed with Badan Pengawas (Controll Board). If Controll Board already agree with new tariff, they ask to Bupati to approve the tariff with DPRD II knowing.
Pricing / Adjustment Mechanism	Tarrif review is 2 year. There is no tariff change if still possible. Since 2007 there is no tariff change
Public Consultation	Socialitation done since 2 months before tariff be in effect, by leaflet attached at the bill and by radio.



**Name of PDAM:** PDAM Sawahlunto, West Sumatra Province; **IKK: Sumpahan**  
**Number of SPAM IKK:** 3 for whole PDAM service areas  
**Number of House Connection:** ( 5.012 ) connections  
**Number of Staff (PDAM)** ( 46 ) **Staff ratio:** 9.1 (Staff/1,000 connections)  
**No. of Water Resources:** 7 (River:7)  
**Year of Establishment:** 1992

Issues	Description	Countermeasures
Project Preparation	Design	DED was conducted by Satker Province using APBD I (Province) budget
	Land Acquisition	The land was belonged to Local Government, however people who living surrounding cultivated the land by plantations, so PDAM just paid plantation cost only
	Water Right	No SIPA is required, however water source located at ulayat land (Nagari/traditional group), so PDAM needs permission from the traditional leader for using the water through discussion between them and sign agreement letter.
Operation	Operation Hours	Production : 24 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 8 staffs; Engineering Division: 29 staffs; Adm. & Finance: 9 staffs
Accounting	Salary	30% of total cost
	Electricity	27% of total cost
	Chemicals, spare parts,	8%
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	PDAM Sawahlunto seldom send his staff to follow training
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,475/m3, see form 2(3)
	Average sales price	Rp. 2419.64/m3
	Average Production Cost	Rp. 2190.83/m3
	Other income	Rp. 800,000/HC
	Tariff change period	Based on regulation, tariff review is every 2 year. There is no tariff change if still possible. Since 2004 there is no tariff change
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 49,000

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill at PDAM third party partners name Cooperative Unit, then Cooperative Unit send to PDAM bank's account. PDAM pay 2,5% for bill paid to the third party
	Collection rate of billed	100%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 7,500 for 2nd month, Rp. 10,000 for the 3rd month and disconnection for 4th month
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
Assets	Intake, W/T, Transmission	The assets are national government investment (satker pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Sumpahan)	Unit staff	1 person as a guard
	Existing	-
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Walikota Sawahlunto Decree No. 189.2/59/WAKO-SWL/2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board) that will takes 3 months. If Controll Board agree, they need to meet DPRD II 3 times. If DPRD agree they will ask Walikota to issue a Decree for new tariff .
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	Public Socialitation done since 1 months before tariff adjustment takes its effect, by radio, invite every Subdistrict Head.

**Name of PDAM:** BPAB Kabupaten Rokan Hulu; **IKK: Tandun**  
**Number of SPAM IKK:** 4 for whole PDAM service areas  
**Number of House Connection:** 1,900  
**Number of Staff (PDAM)** 58 **Staff ratio:** 30.5 (Staff/1,000 connections)  
**No. of Water Resources:** 4 (Rivers)  
**Year of Establishment:**

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	6 Hours
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	58 staffs (1 Director, 35 technical staffs, 18 adm/financial staff, 5 CS/public relation staffs)
Accounting	Salary	No Data
	Electricity	No Data
	Chemicals, spare parts,	No Data
	Subsidy from Bupati	Yes, from Local Government, 70%
Training	Cooperation with PERPAMSI	PERPAMSI
	Cooperation with other PDAM	No
Tariffs	Minimum tariff for non commercial	Rp. 600/m3
	Average sales price	Rp 600,-/m3
	Average Production Cost	Rp 3,500/m3
	Other income	New connection: Rp. 500.000/HC
	Tariff change period	Never change since 2003, propose in 2009
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 26,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	To the loket in BPAB unit offices where the customer can make payment
	Collection system	By loket in BPAB unit offices
	Collection rate of billed	90%
	Penalty Rules	Disconnection after 3 months not being paid
	Accounting Report to Bupati	Monthly Financial report is submitted to PU, not to Bupati
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	No
SPAM IKK	Unit staff	10 staffs (Chief: 1, Administration:3, Technical staff: 6)
(IKK Tandun)	Existing	293 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Local Government Regulation, but still in process
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By BPAM
Public Consultation	Consultation with DPRD

**Name of PDAM:** BPAM Kabupaten Kuantan Singingi; **IKK: Inuman**  
**Number of SPAM IKK:** 7 for whole PDAM service areas  
**Number of House Connection:** 2.292 connections  
**Number of Staff (PDAM):** 30 **Staff ratio:** 13.1 (Staff/1,000 connections)  
**No. of Water Resources:** 7 (Rivers)  
**Year of Establishment:** 2001

Issues	Description	Countermeasures
Project Preparation	Design	DED by PU Cipta Karya
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	6 Hours (13.00 - 19.00)
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	30 staffs (14 technical staffs, 13 adm/financial staff, 3 CS/public relation staffs)
Accounting	Salary	By Local Government as the Local Government staffs
	Electricity	Included in Cipta Karya Operational Cost
	Chemicals, spare parts,	Included in Cipta Karya Operational Cost
	Subsidy from Bupati	Yes, from Local Government,70%
Training	Cooperation with PERPAMSI	PERPAMSI
	Cooperation with other PDAM	No
Tariffs	Minimum tariff for non commercial	Rp. 935/m3
	Average sales price	Rp 1,200,-/m3
	Average Production Cost	Rp 1,600/m3
	Other income	New connection fee: Rp. 486.000
	Tariff change period	Never change since 2003,propose in 2009
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 27,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	To the loket in BPAM unit offices where the customer can make payment
	Collection system	By loket in BPAM unit offices
	Collection rate of billed	no data
	Penalty Rules	Disconnection after 3 months not being paid
	Accounting Report to Bupati	Monthly Financial report is submitted to Finance Section of Cipta Karya
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	No
SPAM IKK	Unit staff	3 staffs (Chief: 1, Administration:3, Technical staff: 6)
(IKK Inuman)	Existing	350 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Local Government Regulation,but still in process
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By BPAM
Public Consultation	Consultation with DPRD

**Name of PDAM:** PDAM Tirta Muaro Jambi Kabupaten Muaro Jambi; **IKK:** Muaro Jambi  
**Number of SPAM IKK:** 7 for whole PDAM service areas  
**Number of House Connection:** ( 3.620 ) connections  
**Number of Staff (PDAM)** ( 56 ) **Staff ratio:** 15.5 (Staff/1,000 connections)  
**No. of Water Resources:** 8 (River:6 and well:2)  
**Year of Establishment:** 2003

Issues	Description	Countermeasures
Project Preparation	Design	No DED for the intake and WTP, since when selection of contractor, just mentioned the required capacity is 5 l/sec.
	Land Acquisition	The land was belonged to Local Government
	Water Right	No SIPA is required, since the intake is just for 5 l/sec.
Operation	Operation Hours	For the whole PDAM the operation hours is around 20 hours/day, but with the management of time to reduce cost. Each unit basically operates around 8 - 10 hours/day. Especially for IKK Muaro Jambi, its operating hour is around 2 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Engineering Division: 44 staffs (1 Civil Engineer); CS: 39 staffs; GA&Finance: 28
Accounting	Salary	46% of total cost
	Electricity	27% of total cost
	Chemicals, spare parts,	5%
	Subsidy from Bupati	Yes, for electricity and chemical
Training	Cooperation with PERPAMSI	None, therefore they request training for the staffs
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,500/m3
	Average sales price	Rp. 1,700/m3
	Average Production Cost	Rp. 2,750/m3
	Other income	New connection fee: Rp. 760,000/HC
	Tariff change period	Based on regulation in every 4 years, but the latest adjustment approval was in March 2010, but it will be valid from May-June 2010
	Tariff change process	Details in Water Setting Mechanism
Average payment /HH	Rp. 27,500 for IKK and around Rp. 43,000 for non IKK	

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100% have been installed, even last year PDAM has replaced the new water meter (around 700 units) to replace the broken ones	
	Meter reading	Monthly basis	
	Bill delivery	Through the "loket" in Central Office and unit office	
	Collection system		Through the "loket" in PDAM office and unit officers
			In IKK (Unit office), each chief of each unit collected the payment and then transfer the collected money to the PDAM bank account
			No cooperation with Bank yet
Assets	Collection rate of billed	60%, but basically, they pay it in every 3 months waiting for their harvest season.	
	Penalty Rules	Penalty is Rp. 2,500 for the 1st month; Rp. 5,000 for 2nd month and Rp. 7,500 for the 3rd month	
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati	
SPAM IKK (IKK Candi Muaro Jambi)	Intake, W/T, Transmission	Grant from budget of APBN Murni (Provincial Satker)	
	Depreciation of Intake, W/T, Transmission	For the project that has just only temporary hand over, depreciation will not be made	
SPAM IKK (IKK Candi Muaro Jambi)	Unit staff	1 person as the operator & bill collection staff	
	Existing	99 HC are connected now, gradually growth from 0 connection in 2006	
	Public hydrant	-	

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and then submit to Bupati. Before to Bupati, PDAM and Control Board also inform to DPRD (legislative house of Kabupaten) and then DPRD provide recommendation to Bupati. Based on the recommendation, Bupati shall review and if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	The proposed of tariff adjustment is announced to the community and also by using leaflet

**Name of PDAM:** PDAM Tirta Batang Hari Kabupaten Batang Harin; IKK: Lubuk Ruso  
**Number of SPAM IKK:** 10 units in total for whole PDAM service areas  
**Number of House Connection:** ( 3,902 ) connections  
**Number of Staff (PDAM)** ( 40 ) **Staff ratio:** 10.3 (Staff/1,000 connections)  
**No. of Water Resources:** 17 units (river : 4; springs: 10 units and deep well: 3)  
**Year of Establishment:** 1999

Issues	Description	Countermeasures
Project Preparation	Design	DED for intake, WTP, and stting of distribution pipe & dozing pump was conducted by consultant selected by Central Satker, while for the reservoir, operator room and pump house (financed by APBN Murni) by Prov. Satker
	Land Acquisition	The land belonged to Local Government (previously housing for teacher, but not being used for long time)
	Water Right	No SIPA is required
Operation	Operation Hours	For SPAM IKK only 3 hours/day since only 90 HC is existed and now only 73 HC are still active
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Badan Pengawas" which is consisted of 3 members (1 Head, 1 Secretary and 1 staff)
	Staffing:	40 staffs (Management: 3, Technical: 17, Fiancial:16 and contract staffs: 4)
Accounting	Salary	50% of total cost
	Electricity	15% of total cost
	Chemicals, spare parts,	5%
	Subsidy from Bupati	Yes, PDAM received subsidy but too small in the form of money for Rp. 600,000 for FY 2010, Rp. 400,000 in FY 2009 for assisting PDAm in paying the electricity,while the elecricity cost is around Rp. 50 million/month
Training	Cooperation with PERPAMSI	Yes, yearly invitation from PERPAMSI, but sometimes no staff dispatch to attend the training due to no budget availability
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,200/m3
	Average sales price	Rp. 2,050/m3
	Average Production Cost	Rp. 2,750/m3
	Other income	New connection fee: Rp 675,000 for non-commercial and Rp. 840,000 for commercial
	Tariff change period	Based on regulation in every 4 years, but the latest adjustment in 2009. Before the 2009 adjustment, it hadn't be changed since 2002.
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 23,000 for IKK and around Rp. 50,000 for non IKK

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100% have been installed, and since last year PDAM has allocated budget to replace the water meter in Mersarem District to reduce the water loss	
	Meter reading	Yes, monthly basis	
	Bill delivery	Yes, monthly basis through the "loket" in Central Office and unit office	
	Collection system		Through the "loket" in PDAM office and units
			No cooperation with Bank yet
			No other representavie, except units
Assets	Collection rate of billed	70%, remaining paid it in every 3-4 months (for whole PDAM), for IKK only around 50%	
	Penalty Rules	Penalty is Rp. 5,000/month	
	Accounting Report to Bupati	Yes, annual financial report to Bupati	
SPAM IKK (IKK Lubuk Ruso)	Intake, W/T, Transmission	Yes, from budget of Central Satker and Provincial Satker	
	Depreciation of Intake, W/T, Transmission	For the project that has just only temporary hand over, depreciation will not be made	
SPAM IKK (IKK Lubuk Ruso)	Unit staff	1 operator and also as the bill collector	
	Existing	90 HC are existed, but the active is only 74 HC	
	Public hydrant	3 units	

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and then submit to Bupati. Bupati will consult with DPRD (Local Legislative House)and if approved, then Bupati shall issued the Regulation on the Tariff Adjustment
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	The adjustment is announced to the users though the radio, information to the customers which is attached to their billing payment receipt as well as information board in PDAM office

**Name of PDAM:** PDAM Banyuasin, South Sumatra Province; **IKK:** Sungai Pinang / Tanjung Kerang  
**Number of SPAM IKK:** 9 for whole PDAM service areas  
**Number of House Connection:** ( 6,342 ) connections  
**Number of Staff (PDAM)** ( 91 ) **Staff ratio:** 14.3 (Staff/1,000 connections)  
**No. of Water Resources:** 3 (River:3)  
**Year of Establishment:** 2002

Issues	Description	Countermeasures
Project Preparation	Design	DED for intake and needed WTP capacity were carried out by satker Province
	Land Acquisition	Land for WTP location is granted from community to local government.
	Water Right	SIPA is not required. Said, for water sources just take from the river.
Operation	Operation Hours	Production : 8 hours/day, Distribution : 6 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Engineering Division: 33 staffs; Accounting: 6 staffs
Accounting	Salary	16% of total cost
	Electricity	9% of total cost
	Chemicals, spare parts,	4%
	Subsidy from Bupati	Yes, for salary and electricity cost in 2007
Training	Cooperation with PERPAMSI	PDAM sent staff for Perpamsi training depend on necessity of PDAM.
	Cooperation with other PDAM	PDAM has meet with PDAM Musi Tirta (Palembang) to get PDAM Palembang experience
Tariffs	Minimum tariff for non commercial	Rp. 900/m3
	Average sales price	Rp. 1377,67/m3 in 2008
	Average Production Cost	Rp. 3634.91/m3 in 2008
	Other income	Rp. 1,100,000/HC
	Tariff change period	Based on regulation, tariff adjustment in every 2 years, but since 2006 there is no tariff change.
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 42,500

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Representative people from PDAM collect the water fee from customer and pay to PDAM branch office. PDAM branch office send the money to PDAM account at bank
	Collection rate of billed	80 - 90%
	Penalty Rules	Penalty is Rp. 2,500 for the 1st month; Rp. 5,000 for 2nd to 3rd month and end of 3rd month is disconnection
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni allocated at Satker Pusat and Province (transmission pipe)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Sungai Pinang / Tanjung Kerang)	Unit staff	4 staffs: 1 chief of unit, 2 technicians, 1 guard
	Existing	100 HC are connected now
	Public hydrant	2 connections

Item	Water Setting Mechanism
Legal Basis	Bupati Banyuasin Decree No. 10 2006
Approval Process	PDAM determine the tariff, than those tariff submit to Badan pengawas (Controll Board). If Controll Board already agree with new tariff, then asked to Bupati (Regent) to give approval the new tariff.
Pricing / Adjustment Mechanism	Adjustment of tariff in 2 years, but since 2006 there is no tariff change
Public Consultation	Community already know that the water price in Banyuasin PDAM is very low, so they can accept the new tariff even there is no public consultation. But PDAM make a public consultation by head of village

**Name of PDAM:** PDAM Lematang Enim Kabupaten Muaraenim, South Sumatra Province; **IKK:** Gelumbang, Sungai Rotan, Kelekar  
**Number of SPAM IKK:** 15 for whole PDAM service areas  
**Number of House Connection:** ( 15,686 ) connections  
**Number of Staff (PDAM)** ( 144 ) **Staff ratio:** 9.2 (Staff/1,000 connections)  
**No. of Water Resources:** 11 (River:6 ; well:4 and spring 1)  
**Year of Establishment:** 1986

Issues	Description	Countermeasures
Project Preparation	Design	DED for intake and needed WTP capacity was carried out by PDAM using consultant services
	Land Acquisition	Land for water treatment facilities was procured from people living in surrounding WTP location. L/A cost is about Rp. 60 million for 1 ha area
	Water Right	SIPA is not required. Said, for water sources just take from the river.
Operation	Operation Hours	Production : 2 hours/day, Distribution : 2 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 35 staffs; Engineering Division: 68 staffs; CS: 5 staffs; GA&Finance: 36 staffs
Accounting	Salary	24% of total cost
	Electricity	20% of total cost
	Chemicals, spare parts,	7% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM Muara Enim is one of healthy PDAM from 2 healthy PDAM in Muara Enim. Staff from PDAM follow the training almost 1 time in every 2 months. Average the staff follow training 15 persons / year for all aspect.
	Cooperation with other PDAM	1 time in every 3 months, director follow meeting (director level) in PERPAMSI
Tariffs	Minimum tariff for non commercial	Rp. 1,175/m3
	Average sales price	Rp. 1,825/m3
	Average Production Cost	Rp. 3,559.19/m3
	Other income	Rp. 1,200,000/HC
	Tariff change period	Based on regulation, tariff adjustment is in every 2 years. There is no tariff change if it still possible. Latest 3 years, there is no tariff change
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 68,340.

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill at IKK unit, than IKK unit staff send to bank (BRI).
	Collection rate of billed	80 - 90%
Assets	Penalty Rules	Penalty is Rp. 3,500 for the 1st month; Rp. 7,500 for 2nd month; Rp. 15,000 for the 3rd month and more 3rd month is disconnection
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from national budget APBN allocated at satker pusat and satker province
SPAM IKK (IKK Gelumbang)	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
	Unit staff	7 staffs: 1 manager, 2 administrations, 2 technicians, 2 guards
	Existing	81 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Muara Enim Decree No. 7 2006
Approval Process	PDAM determine the tariff, than those tariff discussed with Badan pengawas (Controll Board). Usually discussion done in 2 times. If Controll Board already agree with new tariff, PDAM and Controll Board make coordination with DPRD II in 3 times meeting. After DPRD II accept those tariff, then asked to Bupati (Regent) to give approval the new tariff.
Pricing / Adjustment Mechanism	Adjustment of tariff is in 2 years. If still possible there is no tariff change
Public Consultation	Public Consultation done by direct to community and mass media (news paper or radio)

**Name of PDAM:** PDAM Tirta Jasa Kabupaten Lampung Selatan; **IKK: Way Lima**  
**Number of SPAM IKK:** 4 for whole PDAM service areas  
**Number of House Connection:** ( 7.752 ) connections  
**Number of Staff (PDAM)** ( 97 ) **Staff ratio:** 12.5 (Staff/1,000 connections)  
**No. of Water Resources:** 17 units (river : 4; springs: 10 units and deep well: 3)  
**Year of Establishment:** 2000

Issues	Description	Countermeasures
Project Preparation	Design	DED was conducted by consultant selected by central Satker
	Land Acquisition	The land procured by Local Government from the community
	Water Right	At the initial stage, there was complaint from NGO for using the Way Lima river as the water source, since the water also used by the farmers (P3A). After some socialization, then the approval from the community was gained. And the Dinas Pengairan also gave the approval since the capacity of river is sufficient to be used as the water sources.
Operation	Operation Hours	24 hours for the whole PDAM, for the SPAM IKK Way Lima is only 12 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Badan Pengawas" which is consisted of 3 members (1 Head, 1 Secretary and 1 staff)
	Staffing:	97 staffs (Director: 1, Head of Division:2, Technical staff:43, Financial& adm:41 & contract staff:10)
Accounting	Salary	45% of total cost
	Electricity	30% of total cost
	Chemicals, spare parts,	25% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, yearly invitation from PERPAMSI
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,100/m <sup>3</sup>
	Average sales price	Rp. 2,800/m <sup>3</sup>
	Average Production Cost	Rp.3,200/m <sup>3</sup>
	Other income	New connection fee: Rp. 850,000/HC
	Tariff change period	Based on regulation in every 4 years, but the latest adjustment in 2008. Before the 2008 adjustment, it hadn't be changed for 6 years
	Tariff change process	Details in Water Setting Mechanism
Average payment /HH	Rp. 29,000 for IKK and around Rp. 35,000 for non IKK	

Issues	Description	Countermeasures
	Meter Installation	100% have been installed, even last year Local Government granted 1,000 water meter to replaced the broken water meters, among them 800 units have been installed
	Meter reading	Yes, monthly basis
	Bill delivery	Yes, monthly basis through the "loket" in Central Office and unit office
Tariff Collection	Collection system	Through the "loket" in PDAM office and units
		No cooperation with Bank yet
		The chief of each unit collected the payment and then transfer the collected money to the PDAM's account
	Collection rate of billed	For the whole PDAM 82%, but for IKK Way Lima is around 30% that can be collected monthly.
	Penalty Rules	Penalty is only Rp. 4,000/month. In IKK Way Lima area, it is difficult to impose disconnection since the willingness and affordability of the users are low. Even, many users request to get the disconnection, since they are not afford to pay around Rp. 29,000/month as the minimum payment for the water.
	Accounting Report to Bupati	Yes, annual financial report to Bupati
Assets	Intake, W/T, Transmission	Yes, from budget of Central Satker
	Depreciation of Intake, W/T, Transmission	For the project that has just only temporary hand over, depreciation will not be made
SPAM IKK (IKK Lubuk Ruso)	Unit staff	5 staffs (Chief: 1, administrator:2; operator: 3)
	Existing	612 HC are existed, but the active is only 511 HC
	Public hydrant	2 units managed by community 9average payment: Rp. 27,000/month

Item	Water Setting Mechanism
Legal Basis	Bupati's Decree
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and then submit to Bupati. Before to Bupati, PDAM and Control Board also inform to DPRD (legislative house of Kabupaten) and then DPRD provide recommendation to Bupati. Based on the recommendation, Bupati shall review and if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	By mass media (news paper and radio) within 3 months before the new tariff is applied



**Name of PDAM:** PDAM Kabupaten Rejang Lebong; **IKK: Kota Padang**  
**Number of SPAM IKK:** 9 for whole PDAM service areas  
**Number of House Connection:** 7,852 connections  
**Number of Staff (PDAM):** 100 **Staff ratio:** 12.7 (Staff/1,000 connections)  
**No. of Water Resources:** 7 (River: 1, Spring: 6)  
**Year of Establishment:** 1978

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 Hours
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	100 staffs (Director: 1, technical staff:40, financial/adm: 15; in branch offices: 30, contract: 14)
Accounting	Salary	45% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	3% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	
	Cooperation with other PDAM	
Tariffs	Minimum tariff for non commercial	Rp. 935/m3
	Average sales price	Rp. 1,500/m3
	Average Production Cost	Rp. 2,400/m3
	Other income	New connection fee: Rp. 486.000
	Tariff change period	In every 4 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 30,000

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100%	
	Meter reading	Monthly	
	Bill delivery	Monthly	
	Collection system		By PDAM offices
			No cooperation with Bank
	Collection rate of billed	80%	
	Penalty Rules	Disconnections after 3 months are not being paid	
Accounting Report to Bupati	Monthly & Yearly		
Assets	Intake, W/T, Transmission	Yes	
	Depreciation of Intake, W/T, Transmission	No	
SPAM IKK (IKK Kota Padang)	Unit staff	No staff, due to not operated yet	
	Existing	Not operation yet	
	Public hydrant		

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation with Local Parlement

**Name of PDAM:** PDAM Kabupaten Rejang Lebong; **IKK: Selupu Rejang & Curup**  
**Number of SPAM IKK:** 9 for whole PDAM service areas  
**Number of House Connection:** 7,852 connections  
**Number of Staff (PDAM)** 100 **Staff ratio:** 12.7 (Staff/1,000 connections)  
**No. of Water Resources:** -  
**Year of Establishment:** 1978

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 Hours
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	100 staffs (Director: 1, technical staff:40, financial/adm: 15; in branch offices: 30, contract staff: 14)
Accounting	Salary	45% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	3% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	
	Cooperation with other PDAM	
Tariffs	Minimum tariff for non commercial	Rp. 935/m3
	Average sales price	Rp. 1,500/m3
	Average Production Cost	Rp. 2,400/m3
	Other income	New connection fee: Rp. 486.000
	Tariff change period	In every 4 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 30,000

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100%	
	Meter reading	Monthly	
	Bill delivery	Monthly	
	Collection system		By PDAM office
			No cooperation with Bank
	Collection rate of billed	80%	
	Penalty Rules	Disconnections after 3 months are not being paid	
Accounting Report to Bupati	Monthly & Yearly		
Assets	Intake, W/T, Transmission	Grant, but not yet hand over for proprietary of asset	
	Depreciation of Intake, W/T, Transmission	Yes, but no for SPAM IKK, because not yet hand over for proprietary, for this time just hand over for operational	
SPAM IKK	Unit staff	5 staffs, for operational	
(IKK Selupu Rejang & Curup)	Existing	3,596 HC	
	Public hydrant	15 units	

Item	Water Setting Mechanism
Legal Basis	Permendagri No 23 Tahun 2006
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation with DPRD

**Name of PDAM:** PDAM Kabupaten Serang; **IKK: Cikande**  
**Number of SPAM IKK:** 16 units and 3 region for whole PDAM service areas  
**Number of House Connection:** (28.018 ) connections  
**Number of Staff (PDAM)** ( 180 ) **Staff ratio:** 8.4 (Staff/1,000 connections)  
**No. of Water Resources:** 19 (Spring: 5; Surface Water: 10; Deep well: 2 plus supported by other sources from private water supply enterprises)  
**Year of Establishment:** 2000

Issues	Description	Countermeasures
Project Preparation	Design	Intake, WTP : By Consultant from Central Satker
	Land Acquisition	By PDAM, budget from Local Government
	Water Right	Yes, Decree of Head of Water Resources and Settlement of Banten province in 2008, No. 693/SK.23.5/DSP/2008
Operation	Operation Hours	24 hours
	Accounting Rules	Based on Financial Accounting Standard (SAK) and Accounting Standard for PDAM
	Monitoring Rules	By Supervisory/Control Board. Members of Supervisory/Control board are 3 persons
	Staffing:	180 staffs (40% engineering staffs and 60% non-engineering staffs)
Accounting	Salary	40% of total cost
	Electricity	25% of total cost
	Chemicals, spare parts,	5% of total cost, remaining for O&M
	Subsidy from Bupati	In the form of capital for the whole PDAM. PDAM will decide to use the budget based on its priority (around Rp. 5 billion/year)
Training	Cooperation with PERPAMSI	Always attending the training invited by PERPAMSI
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,000/m <sup>3</sup>
	Average sales price	Rp. 1,700/m <sup>3</sup>
	Average Production Cost	Rp.2,150/m <sup>3</sup>
	Other income	New connection fee: Rp. 1,000,000 - Rp. 1,500,000 based on classification of customers
	Tariff change period	No certain period, based on the actual requirements, if the PLN increase the tariff, PDAM will propose tariff increase
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 42,000 - Rp. 48,000

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	No delivery, only inform to the customers during meter reading and customers ask in the "loket" or Bank Jabar when they want to pay
	Collection system	In the "loket" of PDAM or unit offices
		Cooperates with Bank Jabar and Post Office
	Collection rate of billed	By unit offices
		80%
Penalty Rules	Penalty is only Rp. 500/month	
Accounting Report to Bupati	Yes, annual financial report to Bupati	
Assets	Intake, W/T, Transmission	Grant from Central Gov
	Depreciation of Intake, W/T, Transmission	For the project that has just only temporary hand over, depreciation will not be made
SPAM IKK (IKK Cikande)	Unit staff	5 staffs (Chief: 1, and operator: 4). The Chief is for 2 units (IKK Cikande and IKK Kibin)
	Existing	3,290 HC for Kec. Cikande and Kec. Kibin
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati's Decree
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and then submit to Bupati. Before to Bupati, PDAM and Control Board also inform to DPRD (legislative house of Kabupaten) and then DPRD provide recommendation to Bupati. Based on the recommendation, Bupati shall review and if approved Bupati issues the Regulation
Pricing / Adjustment Mechanism	In 2010, PDAM has prepare new tariff of Rp. 2,500/m <sup>3</sup> as the basic fare
Public Consultation	If the new tariff has been agreed, then socialization to the customers shall be done through mass media such as newspaper, radio, brochure, etc.

**Name of PDAM:** PDAM Kabupaten Kuningan; IKK: Garawangi  
**Number of SPAM IKK:** 11 IKK + 1 central unit  
**Number of House Connection:** ( 20,051 ) connections  
**Number of Staff (PDAM)** ( 166 ) **Staff ratio:** 8.3 Staff ratio: 8.3 (Staff/1,000 connections)  
**No. of Water Resources:** 15 (River:1, Spring: 14)  
**Year of Establishment:** 1988

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	166 staffs (Technical: 18, financial & adm: 42; in branch offices: 81, contract staff: 24)
Accounting	Salary	39% of total cost
	Electricity	4% of total cost
	Chemicals, spare parts,	
	Subsidy from Bupati	In the form of capital for the whole PDAM. PDAM will decide to use the budget based on its priority (around Rp. 5 billion/year)
Training	Cooperation with PERPAMSI	Yes, with PERPAMSI
	Cooperation with other PDAM	PAM West Java Organization
Tariffs	Minimum tariff for non commercial	Rp. 1,850/m <sup>3</sup>
	Average sales price	Rp. 2,240.98/m <sup>3</sup>
	Average Production Cost	Rp. 2,201.32/m <sup>3</sup>
	Other income	New connection fee: Rp 725.000/connection
	Tariff change period	2 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 45,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	No
	Collection system	Yes, by PDAM office and PDAM representative office
	Collection rate of billed	98%
	Penalty Rules	Disconnection after 3 months not being paid
	Accounting Report to Bupati	Yearly
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Garawangi )	Unit staff	5 staffs (Chief: 1, Administration: 2; Technical:2)
	Existing	1,014 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parlement

**Name of PDAM:** PDAM Kabupaten Kuningan; IKK: Luragung  
**Number of SPAM IKK:** 11 IKK + 1 central unit  
**Number of House Connection:** ( 20,051 ) connections  
**Number of Staff (PDAM)** ( 166 ) **Staff ratio:** 8.3 (Staff/1,000 connections)  
**No. of Water Resources:** 15 (River:1, Spring: 14)  
**Year of Establishment:** 1988

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	166 staffs (Technical: 18, financial & adm: 42; in branch offices: 81, contract staff: 24)
Accounting	Salary	39% of total cost
	Electricity	4% of total cost
	Chemicals, spare parts,	
	Subsidy from Bupati	In the form of capital for the whole PDAM. PDAM will decide to use the budget based on its priority (around Rp. 5 billion/year)
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	PAM West Java Organization
Tariffs	Minimum tariff for non commercial	Rp. 1,850/m3
	Average sales price	Rp. 2,240.98/m3
	Average Production Cost	Rp. 2,201.32/m3
	Other income	New connection fee: Rp 725.000/connection
	Tariff change period	2 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 45,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	No
	Collection system	Yes, by PDAM office and PDAM representative office
	Collection rate of billed	98%
	Penalty Rules	Disconnection after 3 months not being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Luragung)	Unit staff	7 staffs (Chief: 1, Administration: 2; Technical:3, others:1)
	Existing	1,488 connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parlement

**Name of PDAM:** PDAM Kabupaten Cirebon; IKK: Ciwaringin  
**Number of SPAM IKK:** 8  
**Number of House Connection:** ( 25,833 ) connections  
**Number of Staff (PDAM)** ( 220 ) **Staff ratio:** 8.5 (Staff/1,000 connections)  
**No. of Water Resources:** 6 Spring; 4 Surface Water and 2 Deep Well  
**Year of Establishment:** 1988

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	220 staffs (1 Director, Technical staff: 83; Adm/financial:136)
Accounting	Salary	39% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	PAM West Java Organization
Tariffs	Minimum tariff for non commercial	Rp. 1,100/m3
	Average sales price	Rp. 2,980/m3
	Average Production Cost	Rp. 4,260/m3
	Other income	New connection fee: Rp 660,000-Rp. 1,540,000/connection for non-commercial
	Tariff change period	1 year
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 52,500/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	No
	Collection system	Yes, by PDAM office and PDAM representative office
	Collection rate of billed	85%
	Penalty Rules	Disconnection after 3 months not being paid
	Accounting Report to Bupati	Monthly & Yearly
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Ciwaringin)	Unit staff	No staff. Not operating yet
	Existing	Not operating yet
	Public hydrant	14 units

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parlement

**Name of PDAM:** PDAM Kota Bogor; **IKK: Palasari**  
**Number of SPAM IKK:** 6  
**Number of House Connection:** ( 88.614 ) connections  
**Number of Staff (PDAM)** ( 400 ) **Staff ratio:** 4.5 (Staff/1,000 connections)  
**No. of Water Resources:** 3 Spring and 2 River  
**Year of Establishment:** 1977

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	400 staffs (1 President Director, 2 Directors, Technical staff: 192; Adm/financial:191, contract staff:14)
Accounting	Salary	28% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	5% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	PAM West Java Organization
Tariffs	Minimum tariff for non commercial	Rp. 1,100/m3
	Average sales price	Rp. 3,484.6/m3
	Average Production Cost	Rp. 3,466.55/m3
	Other income	New connection fee: Rp 660,000-Rp. 1,540,000/connection for non-commercial
	Tariff change period	1 year
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 87,500/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	No
	Collection system	Yes, by PDAM office By Bank By PDAM representative office
	Collection rate of billed	83%
	Penalty Rules	Disconnection after 3 months not being paid
	Accounting Report to Bupati	Monthly
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Palasari)	Unit staff	14 staffs (8 operators and 6 cleaning services & security)
	Existing	1,400 connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Mayor (Walikota)
Approval Process	By Walikota
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament

**Name of PDAM:** PDAM Grobogan, Central Java Province; **IKK: Toroh**  
**Number of SPAM IKK:** 17 for whole PDAM service areas  
**Number of House Connection:** ( 16,509 ) connections  
**Number of Staff (PDAM)** ( 110 ) **Staff ratio:** 6.7 (Staff/1,000 connections)  
**No. of Water Resources:** Tariff change process  
**Year of Establishment:** 1986

Issues	Description	Countermeasures
Project Preparation	Design	Tariff change process
	Land Acquisition	No L/A, PDAM procured land for facilities from people using Kabupaten budget
	Water Right	No SIPA is required, water sources is taken from irrigation canal that needs coordination with dinas water resources
Operation	Operation Hours	Production : 12 hours/day, Distribution : 12 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 15 staffs; Engineering Division: 35 staffs; Adm.&Finance: 16 staffs and branch office: 37 staffs
Accounting	Salary	- of total cost
	Electricity	- of total cost
	Chemicals, spare parts,	- of total cost
	Subsidy from Bupati	Yes, Kabupaten paid Rp. 2 billion in 2010 for installment payment to Ministry of Finance
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI located at Magelang (Yayasan Pendidikan Tirta Dharma/ YTPD) and training conducted by PU. PDAM sent around 2 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,200/m3
	Average sales price	Rp. 2,498.14/m3
	Average Production Cost	RP. 2,665.83/m3
	Other income	Rp.1,500,000/HC
	Tariff change period	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period. the latest adjustment approval was on June 2009
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 47,485

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	For unit customer pay to BKK (Bank Kredit Kecamatan = Kecamatan Credit Bank) and for main unit customer pay to PDAM
	Collection rate of billed	95%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 10,000 for 2nd month and disconnection for end of 2nd month
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
Assets	Intake, W/T, Transmission	Grant from budget of APBN Murni (Satker province)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK	Unit staff	4 staffs: 1 manager, 2 adm. Staffs and 1 guard
(IKK Toroh)	Existing	655 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Regulation of Bupati Grobogan, No. 16 year 2009, date May 14 2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet Bupati. If Bupati agree they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period. the latest adjustment approval was on June 2009
Public Consultation	Public socialitation done since 1 month before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community



**Name of PDAM:** PDAM Grobogan, Central Java Province; **IKK: Gubug**  
**Number of SPAM IKK:** 17 for whole PDAM service areas  
**Number of House Connection:** ( 16,509 ) connections  
**Number of Staff (PDAM)** ( 110 ) **Staff ratio:** 6.7 (Staff/1,000 connections)  
**No. of Water Resources:** Tariff change process  
**Year of Establishment:** 1986

Issues	Description	Countermeasures
Project Preparation	Design	DED has been prepared by Bappeda using kabupaten budget
	Land Acquisition	No L/A, PDAM rent the land for water facilities to Gubug village in amount Rp. 500,000/year. The land rental is yearly extended
	Water Right	No SIPA is required, Water resources of SPAM IKK Gubug coming from primary irrigation channel managed under Water Resources Department. PDAM pays Rp. 500,000 every year for getting permission and the permission is yearly extended.
Operation	Operation Hours	Production : 4 hours/day, Distribution : 4 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 15 staffs; Engineering Division: 35 staffs; Adm.&Finance: 16 staffs and branch office: 37 staffs
Accounting	Salary	- of total cost
	Electricity	- of total cost
	Chemicals, spare parts,	- of total cost
	Subsidy from Bupati	Yes, Kabupaten paid Rp. 2 billion in 2010 for installment payment to Ministry of Finance
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI located at Magelang (Yayasan Pendidikan Tirta Dharma/ YTPD) and training conducted by PU. PDAM sent around 2 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,200/m3
	Average sales price	Rp. 2,498.14/m3
	Average Production Cost	RP. 2,665.83/m3
	Other income	Rp.1,500,000/HC
	Tariff change period	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period. the latest adjustment approval was on June 2009
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 47,485

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	For unit customer pay to BKK (Bank Kredit Kecamatan = Kecamatan Credit Bank) and for main unit customer pay to PDAM
	Collection rate of billed	95%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 10,000 for 2nd month and disconnection for end of 2nd month
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni (Satker pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK	Unit staff	2 staffs: 1 manager/adm./technicent and 1 operator
(IKK Gubug)	Existing	45 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Regulation of Bupati Grobogan, No. 16 year 2009, date May 14 2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet Bupati. If Bupati agree they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period. the latest adjustment approval was on June 2009
Public Consultation	Public socialitation done since 1 month before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Kendal, Central Java Province; **IKK: Boja**  
**Number of SPAM IKK:** 18 for whole PDAM service areas  
**Number of House Connection:** ( 42,684 ) connections  
**Number of Staff (PDAM)** ( 174 ) **Staff ratio:** 4,1 (Staff/1,000 connections)  
**No. of Water Resources:** 9 (Well:9)  
**Year of Establishment:** -

Issues	Description	Countermeasures
Project Preparation	Design	PDAM conducted design for well and transmission pipe
	Land Acquisition	There was no L/A, PDAM procured land for facilities from people using PDAM budget
	Water Right	SIPA is required, PDAM prepared it
Operation	Operation Hours	Production : 8 hours/day, Distribution : 8 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staff; Engineering Division: 16 staffs; Adm.&Finance: 29 staffs, CS: 66 staffs and branch office: 62 staffs
Accounting	Salary	- of total cost
	Electricity	- of total cost
	Chemicals, spare parts,	- of total cost
	Subsidy from Bupati	There was not subsidy
Training	Cooperation with PERPAMSI	-
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,400/m3
	Average sales price	Rp. -/m3
	Average Production Cost	Rp. -/m4
	Other income	Rp.1,000,000/HC
	Tariff change period	Based on Bupati regulation, tariff change in every 2 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	-

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	For unit customer pay to BKK (Bank Kredit Kecamatan = Kecamatan Credit Bank)
	Collection rate of billed	95%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 10,000 for 2nd month and disconnection for end of 2nd month
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni (Satker Pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Boja)	Unit staff	9 staffs: 1 manager, 1 adm. Staffs, 3 technicians and 4 guard
	Existing	2,209 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati regulation
Approval Process	PDAM proposed new water tariff to Badan Pengawas / control board and discusses, the new tariff is brought to Bupati then Bupati sends letter to kabupaten parlemen for parlemen information. after that Bupati issued new tariff approval.
Pricing / Adjustment Mechanism	Tariff change in every 2 years
Public Consultation	There is announcement to customer using brochure and radio.

**Name of PDAM:** PDAM Boyolali, Central Java Province; **IKK:** Sawit  
**Number of SPAM IKK:** 15 for whole PDAM service areas  
**Number of House Connection:** ( 20,776 ) connections  
**Number of Staff (PDAM)** ( 138 ) **Staff ratio:** 6.6 (Staff/1,000 connections)  
**No. of Water Resources:** 27 (Spring:15 and well:12)  
**Year of Establishment:** 1978

Issues	Description	Countermeasures
Project Preparation	Design	DED has been made by satker province which is paid by APBN provinve budget
	Land Acquisition	PDAM bought the land to village in amount of Rp. 10 million for 100 m2 area
	Water Right	SIPA was not required
Operation	Operation Hours	Production : 6 hours/day, Distribution : 6 hours/day. Production and distribution in the same time, because there is no reservoir. Production and distribution process not 6 hours continuesly but operation is in every around 1 - 1.5 hours to avoid fire at pump.
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 3 staffs; Engineering Division: 55 staffs; CS: 17 staffs; GA&Finance: 54 staffs; branch off: 9 staffs
Accounting	Salary	37% of total cost
	Electricity	26% of total cost
	Chemicals, spare parts,	1%
	Subsidy from Bupati	There is no subsidy but there is local governement investment
Training	Cooperation with PERPAMSI	PDAM staffs follow trainings conducted by PERPAMSI and PU. In average, PDAM sent training staff around 14 per year.
	Cooperation with other PDAM	PDAMs in central java makes sport regularly meeting in every 2 years, beside sport competition, the meeting is used as sharing PDAM informations
Tariffs	Minimum tariff for non commercial	Rp. 1,000/m3, see Form 2(3)
	Average sales price	Rp. 2,661.75/m3
	Average Production Cost	Rp. 2,795.73/m3
	Other income	Rp. 1,113,000/HC
	Tariff change period	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period.
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 49,079.3

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill to BKK (Bank Kredit Kecamatan = Kecamatan Credit Bank)
	Collection rate of billed	97%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 10,000 for 2nd month and Rp. 30,000 for re-connection fee
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni (Provincial Satker)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK	Unit staff	3 staffs: 1 unit manager, 1 adm., and 1 operator
(IKK Sawit)	Existing	129 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Boyolali Regulation, No. 5 2009, date February 28 2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree those tariff being discussed with Bupati. If Bupati agree those tariff being discussed with DPRD II, and if DPRD II agree they will ask Bupati to issue a Decree for new tariff. Process of tariff change need around 6 months
Pricing / Adjustment Mechanism	Tariff change in 2009. In Bupati Regulation for tariff consist of 4 period since 2009 until 2013 so
Public Consultation	Public socialitation done since 2 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Rembang, Central Java Province; **IKK: Sulang**  
**Number of SPAM IKK:** 6 for whole PDAM service areas  
**Number of House Connection:** ( 15,478 ) connections  
**Number of Staff (PDAM)** ( 104 ) **Staff ratio:** 6.7 (Staff/1,000 connections)  
**No. of Water Resources:** 10 (River:3; well:1; spring: 5 and embung/small storage: 1)  
**Year of Establishment:** 1980

Issues	Description	Countermeasures
Project Preparation	Design	DED has been made by PDAM using PDAM budget
	Land Acquisition	There is no L/A. PDAM bought land for facilities using local government budget in amount Rp. 60 million for around 600 m2 area
	Water Right	SIPA was not required. Water resources of SPAM IKK Sulang coming from Sambongan small dam in Jatimudo village own by Pemda. PDAM pays groundwater redistribution fee Rp. 22.5 /m3 water sold
Operation	Operation Hours	Production : 16 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staff; Engineering Division: 57 staffs; GA&Finance: 29 staffs and customer services: 17 staffs
Accounting	Salary	19% of total cost
	Electricity	13% of total cost
	Chemicals, spare parts,	5%
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI located at Magelang (Yayasan Pendidikan Tirta Dharma/ YTPD) and training conducted by PU.
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,050/m3, see Form 2(3)
	Average sales price	Rp. 1,736.76/m3 (in 2008)
	Average Production Cost	Rp. 2,661.43/m3 (in 2008)
	Other income	Rp. 1,500,000/HC
	Tariff change period	Based on Bupati regulation for tariff change period 2008-2011, tariff will be yearly reviewed during the period. See Form 2(3)
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 60,000.

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Unit customer pay to unit office, than unit office sent to PDAM. For main unit pay direct to PDAM
	Collection rate of billed	95%
	Penalty Rules	-
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
Assets	Intake, W/T, Transmission	Grant from budget of APBN Murni (Satker pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Sulang)	Unit staff	7 staffs: 1 manager; 1 adm.; 2 technicians and 3 operators
	Existing	866 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Regulation of Bupati Rembang, No. 20 year 2008, date May 15 2008
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet DPRD II for discussion about those tariff. If DPRD II agree they will ask Bupati to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Tariff change period 2008-2011, tariff will be yearly reviewed during the period.
Public Consultation	Public socialitation done since 1 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Tuban, East Java Province; **IKK: Bancar**  
**Number of SPAM IKK:** 12 for whole PDAM service areas  
**Number of House Connection:** ( 22,578 ) connections  
**Number of Staff (PDAM)** ( 120 ) **Staff ratio:** 5.3 (Staff/1,000 connections)  
**No. of Water Resources:** 15  
**Year of Establishment:** 1983

Issues	Description	Countermeasures
Project Preparation	Design	DED has been made by satker province by hire consultant using APBN province
	Land Acquisition	There is no L/A. PDAM bought to people around Rp. 80 million for around 800 m2 area
	Water Right	SIPA is required from Dinas Pertambangan (Local Mining Department) since the SPAM IKK water sources comes from deep well, permission letter could be extended in every 3 years with fee Rp. 100,000.
Operation	Operation Hours	Production : 24 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staff; Engineering Division: 8 staffs; GA&Finance: 16 staffs; Branch office: 79 staffs and CR: 16 staffs
Accounting	Salary	31% of total cost
	Electricity	29% of total cost
	Chemicals, spare parts,	0.13% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI and PU (Surabaya). PDAM sent around 10 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,175/m3
	Average sales price	Rp. 1,600/m3
	Average Production Cost	Rp. 2,200/m3
	Other income	Rp. 750,000/HC
	Tariff change period	Last adjustment tariff was in 2009. Before that, tariff was in 2004.
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 35,000

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill to each unit where they become customer
	Collection rate of billed	98%
	Penalty Rules	Penalty is Rp. 5,000 for the 1st month; Rp. 7,000 for 2nd month and disconnection for more than 2 months. See Form 2 (3)
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
Assets	Intake, W/T, Transmission	There is assets from local government investment and grant from JICA
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK	Unit staff	4 staffs: 1 manager; 1 adm.; 1 technician and 1 operator
(IKK Bancar)	Existing	197 HC are connected now
	Public hydrant	1 connection

Item	Water Setting Mechanism
Legal Basis	PDAM Announcement No. 696/96.A/414.111/2009 date April, 01 2009; Kabupaten Tuban Regulation No. 02 2009 date January, 29 2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet Bupati for discussion. If Bupati agree, they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a regulation from local government for new tariff
Pricing / Adjustment Mechanism	Last adjustment tariff is in 2009. Before that in 2004.
Public Consultation	Public socialitation done since 2 months before tariff adjustment takes its effect, by leaflet, radio and direct to community

**Name of PDAM:** PDAM Kabupaten Ponorogo  
**Number of SPAM IKK:** 14 units for whole PDAM service areas  
**Number of House Connection:** 15,396 connections  
**Number of Staff (PDAM):** 105 **Staff ratio:** 6.8 (Staff/1,000 connections)  
**No. of Water Resources:** 26 units (22 deep wells and 4 springs)  
**Year of Establishment:** 1992

Issues	Description	Countermeasures
Project Preparation	Design	Designed was done by Provincial Satker together with the PDAM
	Land Acquisition	Procured by PDAM
	Water Right	-
Operation	Operation Hours	24 hours for the whole PDAM and 15 hours/day for the IKK
	Accounting Rules	Based on the Decree of State Minister of Regional Autonomy No. 8 of year 2000 dated on 10 August 2000 on Guidelines for PDAM Accounting system
	Monitoring Rules	By Supervisory/Control Board
	Staffing:	105 (1 President Director & 2 Directors, Technical staff; 12; Financial/adm: 11; 79 staffs in unit offices)
Accounting	Salary	40% of total cost
	Electricity	13% of total cost
	Chemicals, spare parts,	Not using the chemical, mostly remaining cost are used for O&M
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Always attending the training invited by PERPAMSI
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,400/m3
	Average sales price	Rp. 1,400/m3
	Average Production Cost	Rp.2,200/m3
	Other income	Rp. 900,000/new connection
	Tariff change period	No regulation, based on the requirement, mostly due to the increase of tariff of PLN (electricity). They got increase in 2005, 2008, 2009 and propose to increase again in 2010 into Rp. 1,650
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 33.500/HH/month for IKK Jenangan

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100%	
	Meter reading	Monthly	
	Bill delivery	To "loket" in PDAM Office or unit offices	
	Collection system		By PDAM Central Office or unit offices
			No Cooperation with Bank yet
	Collection rate of billed	80%	
Assets	Penalty Rules	Rp. 3,000/month, after 3 months not being paid, the connection will be cut off	
	Accounting Report to Bupati	Yes, annual financial report to Bupati	
	Intake, W/T, Transmission	Grant (APBN budget)	
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets	
SPAM IKK (IKK Jenangan)	Unit staff	7 staffs (Chief: 1, administration/cashier: 2 and operator: 4).	
	Existing	200 HC	
	Public hydrant	4 units	

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	From Bupati, DPRD only for sharing, if approved, then Bupati shall issue the Regulation
Pricing / Adjustment Mechanism	Proposed tariff is presented to Bupati and if agreed, then PDAM will inform to DPRD
Public Consultation	Socialization shall be done to the public through the mass media and radio and inform orally to the customers

**Name of PDAM:** PDAM Kabupaten Madiun  
**Number of SPAM IKK:** 13 but 1 unit now is for whole PDAM service areas  
**Number of House Connection:** ( 22,412 ) connections  
**Number of Staff (PDAM)** ( 110 ) **Staff ratio:** 4.5 (Staff/1,000 connections)  
**No. of Water Resources:** 34 units all are deep wells except 4 springs  
**Year of Establishment:** 1987

Issues	Description	Countermeasures
Project Preparation	Design	Design for deep well was done by Provincial Satker
	Land Acquisition	Land procured by Local Government
	Water Right	No water right has been obtained.
Operation	Operation Hours	24 hours for the whole PDAM, but SPAM IKK Gemarang operates 16 hours/day
	Accounting Rules	PDAM Kabupaten Madiun following the Accounting Standard for PDAM (Decree of State Minister for Regional Autonomy No. 8 year 2000 dated on 10th August 2000)
	Monitoring Rules	Monitoring of PDAM performance is done by Supervisory/Control Board , consists of 3 members and chaired by Head of BAPPEDA)
	Staffing:	110 staffs (1 Director, 6 Head of Divisions, technical staffs:33, adm/financial staffs:70)
Accounting	Salary	40% of total cost
	Electricity	27% of total cost
	Chemicals, spare parts,	Mostly are not using the chemical, only SPAM IKK Kare has the WTP
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Always participate training invited by PERPAMSI if it is match with PDAM requirements
	Cooperation with other PDAM	PDAM also provided non technical training for PDAM staffs, for instance Spiritual Leadership Training in Yogyakarta
Tariffs	Minimum tariff for non commercial	Rp. 1,500/m3
	Average sales price	Rp. 1,750/m3
	Average Production Cost	Rp. 2,100/m3
	Other income	New connection fee: Rp. 450,000/HC, but during the project period (in SPAM IKK Gemarang in 2006) was only Rp. 300,000/HC.
	Tariff change period	No change since 2004, need improvement of service first before increase the tariff
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 25,500/month (for users who used < 10 m3/month)

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% , PDAM used the budget those have being paid by the customers to replace the old water meter
	Meter reading	Monthly
	Bill delivery	At "loket" and "payment point" in each unit
	Collection system	At "loket" at PDAM office
		No Cooperation with Bank yet
		Payment Point (in each of PDAM unit office)
	Collection rate of billed	96%
Penalty Rules	Rp. 3,500/month and if until 3 months are not being paid then it will be disconnected	
Assets	Accounting Report to Bupati	Yes, annual financial report to Bupati
	Intake, W/T, Transmission	Grant (APBN budget)
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets
SPAM IKK (IKK Gemarang)	Unit staff	5 staffs (Chief: 1, administration/cashier: 1, engineering staff:2, water meter reader:1).
	Existing	735 HC, but under the deep well constructed under the project just served 430 HC, remaining are served by the broncapturing and other 2 deep wells in Gemarang.
	Public hydrant	1 unit

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	PDAM will conduct hearing to Commision C of DPRD first. After being reviewed by the Commision, then Bupati shall issue the regulation
Pricing / Adjustment Mechanism	Propose by PDAM every 2 years
Public Consultation	The adjustment is announced to the users though the radio, newspaper and information to the customers.

**Name of PDAM:** PDAM Bangkalan, East Java Province; **IKK: Burneh**  
**Number of SPAM IKK:** 10 for whole PDAM service areas  
**Number of House Connection:** ( 13,815 ) connections  
**Number of Staff (PDAM)** ( 165 ) **Staff ratio:** 11.9 (Staff/1,000 connections)  
**No. of Water Resources:** 18 (River:1, spring:5 and well:12)  
**Year of Establishment:** 1982

Issues	Description	Countermeasures
Project Preparation	Design	DED has been prepared by PDAM using PDAM budget
	Land Acquisition	There is no L/A. location of WTP is located at existing WTP land owned by PDAM
	Water Right	SIPA was not required. Water resources of SPAM IKK Burneh comes from Tangkil river same with existing WTP.
Operation	Operation Hours	Production : 5 hours/day, Distribution : 9 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 29 staffs; Engineering Division: 34 staffs; CS: 32 staffs; GA&Finance: 56 staffs and branch office 14 staffs
Accounting	Salary	42% of total cost
	Electricity	34% of total cost
	Chemicals, spare parts,	0.45% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI and PU (Surabaya). PDAM sent around 4-5 staffs/year.
	Cooperation with other PDAM	PDAM has cooperation with PDAM Sampang due to Bangkalan sell bulk water to Sampang
Tariffs	Minimum tariff for non commercial	Rp. 1,800/m3
	Average sales price	Rp. 3,013/m3
	Average Production Cost	Rp. 2,900/m3
	Other income	Rp. 800,000/HC
	Tariff change period	Based on Bupati regulation for tariff change period 2009-2013, tariff will be yearly reviewed during the period. Last adjustment tariff was in 2009
	Tariff change process	Details in Water Setting Mechanism
Average payment /HH	Rp. 60,000	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill to each unit where they become customer
	Collection rate of billed	93%
	Penalty Rules	Penalty is 15% of total bill fee for the 1st month and temporary disconnection for delaying more than 3 months
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
Assets	Intake, W/T, Transmission	Grant from budget of APBN Murni (Provincial pusat) and local government
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Burneh)	Unit staff	5 staffs: 1manager, 1 adm. 1 operator and 2 water meter reading
	Existing	370 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Regulation No. 27 2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree they will ask Bupati to issue a Decree for new tariff. Process of tariff change need around 1 month
Pricing / Adjustment Mechanism	Tariff change in 2009. In Bupati Regulation for tariff consist of 4 period since 2009 until 2013 so there is tariff change every year
Public Consultation	Public socialitation done since 1 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community



**Name of PDAM:** PDAM Kabupaten Kediri  
**Number of SPAM IKK:** 12 for whole PDAM service areas  
**Number of House Connection:** (211,376) connections  
**Number of Staff (PDAM)** ( 110) **Staff ratio:** 8.4 (Staff/1,000 connections)  
**No. of Water Resources:** 14 units; Deep well=6; Spring=1; River=7  
**Year of Establishment:** 1991

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake and WTP was done by Central Satker
	Land Acquisition	Land procured by Local Government, and before the construction of SPAM IKK Project by Central Satker in 2008, Local Government through Dinas PU kabupaten (Cipta Karya Division) has constructed the intake, WTP (10 l/sec), and transmission pipe as well as distribution pipe)
	Water Right	No water right has been obtained. PDAM heard that once there was a proposal to "River Basin Management Center (Balai Besar Wilayah Sungai), but no follow up up to present.
Operation	Operation Hours	24 hours for the whole PDAM, but SPAM IKK Selopamiro operates 3 hours/day
	Accounting Rules	Using Accounting System required for PDAM
	Monitoring Rules	Monitoring of PDAM performance was done by Supervisory/Control Board (now the member is only 1, previously 3 persons)
	Staffing:	96 staffs (1 Director and 2 Head of Divisions (General Affairs and Operational Divisions), technical staff: 35, adm/financial: 49 and 9 contract staffs)
Accounting	Salary	40% of total cost
	Electricity	18% of total cost
	Chemicals, spare parts,	Mostly are not using the treatment plant (distributed directly from deep wells), only SPAM IKK Kepung has the WTP
	Subsidy from Bupati	Previously no (just physical works handed by Dinas PU), recently in the form of capital
Training	Cooperation with PERPAMSI	Always participate training invited by PERPAMSI if it is match with PDAM requirements
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 3,200/m3
	Average sales price	Rp. 1,750/m3
	Average Production Cost	Rp. 2,500/m3
	Other income	New connection fee: Rp. 335,000/HC, installed payment 3x
	Tariff change period	No change since 2004, need improvement of service first before increase the tariff
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 25,000/month (for users who used < 10 m3/month)

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	At "loket" and "during reading the water meter" for the customers those far from the unit offices. Some of the customers directly paid to the PDAM staffs (water meter reader)
	Collection system	At "loket" at PDAM office
		No cooperation with Bank yet
	Door to door during reading the water meter for the users who their houses are far from unit offices	
	Collection rate of billed	100%
Penalty Rules	Rp. 3,000/month and if until 3 months are not being paid then it will be disconnected	
Accounting Report to Bupati	Yes, annual financial report to Bupati	
Assets	Intake, W/T, Transmission	Grant (APBN and APBD)
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets
SPAM IKK (IKK Kepung)	Unit staff	5 staffs (Chief: 1, administration/cashier: 1, operator:2, water meter reader:1).
	Existing	604 HC, but just being served since March 2010. Now around 1,000 proposals for the new connections have being requested formally or informally. But still can't be served due to the limitation of distribution pipe
	Public hydrant	3 units

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	PDAM will conduct hearing to DPRD first and get approval. After bapproved by DPRD, then Bupati shall issue the Decree
Pricing / Adjustment Mechanism	Mechanism according to the national regulation os at every 4 years, but reviewing shall be done in every 2 years
Public Consultation	The adjustment is announced to the users though the radio, newspaper and information to the customers

**Name of PDAM:** PDAM Kabupaten Bantul  
**Number of SPAM IKK:** 10 for whole PDAM service areas  
**Number of House Connection:** (13,175) connections  
**Number of Staff (PDAM):** (118) **Staff ratio:** 9.0 (Staff/1,000 connections)  
**No. of Water Resources:** 20 (river: 1; well: 17; spring:2)  
**Year of Establishment:** 1992

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake and WTP was done by Central Satker
	Land Acquisition	Land procured by Local Government, and before the construction of SPAM IKK Project by Central Satker in 2008, Local Government through Dinas PU kabupaten (Cipta Karya Division) has constructed the intake, WTP (10 l/sec), and transmission pipe as well as distribution pipe)
	Water Right	No water right has been obtained. PDAM heard that once there was a proposal to "River Basin Management Center (Balai Besar Wilayah Sungai), but no follow up to present.
Operation	Operation Hours	24 hours for the whole PDAM, but SPAM IKK Selopamioro operates 3 hours/day
	Accounting Rules	Yes, and used Accounting System required for PDAM
	Monitoring Rules	Monitoring of PDAM performance was done by Supervisory/Control Board (now the member is only 1, previously 3 persons)
	Staffing:	96 staffs (1 Director and 2 Head of Divisions (General Affairs and Operational Divisions), technical staff: 35, adm/financial: 49 and 9 contract staffs)
Accounting	Salary	30% of total cost
	Electricity	18% of total cost
	Chemicals, spare parts,	5%, others for adm & maintenance
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Only sometimes participate training invited by PERPAMSI due to budget limitation
	Cooperation with other PDAM	Technical Assistance from Germany PERPAMSI for staff training
Tariffs	Minimum tariff for non commercial	Rp. 1,500/m <sup>3</sup>
	Average sales price	Rp. 2,850/m <sup>3</sup>
	Average Production Cost	Rp. 1,800/m <sup>3</sup>
	Other income	New connection fee:Rp. 750,000/HC, but for SPAM IKK Selopamioro is given promotion period is only Rp. 550,000/HC.
	Tariff change period	No change since 2004, need improvement of service first before increase the tariff
	Tariff change process	Socialization to the community first. After agreed on the price, then it will proposed to Bupati and then to DPRD. After agreed then Bupati will issue the Decree. Details in Water Setting Mechanism
Average payment /HH	Rp. 50,000/month	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%, but for IKK unit, the water meter reading was not done, the bill is only made on minimum payment
	Meter reading	Monthly
	Bill delivery	Recorded by PDAM staff when the staff reading water meter in the customer meter card. And then they get the bill when they pay the bill
		At "loket" at PDAM office
	Collection system	Cooperate with Bank Bantul (Local Bank)
		Cooperate with Post Office.
	Collection rate of billed	80%
	Penalty Rules	Rp. 5,000/month and progressive
	Accounting Report to Bupati	Yearly
Assets	Intake, W/T, Transmission	Grant (APBN budget)
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets
SPAM IKK (IKK Selopamioro)	Unit staff	2 staffs (operator)
	Existing	70 HC (some of them are newly connected in May 2010)
	Public hydrant	6 units

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	Proposal from PDAM will be socialized and inform to Public. If agreed then proposed to Bupati and presented to DPRD. After approved, then Bupati will issue the Decree.
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	The adjustment is announced to the users through the radio and information to the customers.

**Name of PDAM:** PDAM Kabupaten Sleman  
**Number of SPAM IKK:** 18 for whole PDAM service areas  
**Number of House Connection:** ( 19,000 ) connections  
**Number of Staff (PDAM)** ( 190 ) **Staff ratio:** 10.3 (Staff/1,000 connections)  
**No. of Water Resources:** Total = 44 units (25 rivers; 12 wells, and 7 springs)  
**Year of Establishment:** 1992

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake and WTP was done by Central Satker
	Land Acquisition	Land procured by PDAM Kabupaten Sleman
	Water Right	No water right has been obtained
Operation	Operation Hours	24 hours for the whole PDAM, but SPAM IKK Gamping operates 6-8 hours/3days/week
	Accounting Rules	No balance statement has been made due to the PDAM's assets handed by the previous PDAM (kab Minahasa) has not being made. Perhaps it will be done in June 2010. Only cash flow from July to Dec 2009 is available
	Monitoring Rules	Monitoring of PDAM performance shall be done by Supervisory/Control Board
	Staffing:	190 staffs ( 1 Director and 2 head of Divisions and 170 staffs in central And 17 branch offices and 17 temporary staffs)
Accounting	Salary	35-40% of total cost
	Electricity	15% of total cost
	Chemicals, spare parts,	5%, others for adm & maintenance
	Subsidy from Bupati	In term of capital, basically used by PDAM for investment
Training	Cooperation with PERPAMSI	Always participate training invited by PERPAMSI
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m3
	Average sales price	Rp. 3,000/m3
	Average Production Cost	Rp. 2,700/m3
	Other income	New connection fee: Rp. 800,000/HC, but during promotion period is only Rp. 300,000/HC.
	Tariff change period	April-Sep 2006, Oct-Mar 2007, April 2007-present
	Tariff change process	From PDAM to Bupati and DPRD; after approved, then Bupati shall issue the Regulation. Details in Water Setting Mechanism
	Average payment /HH	Rp. 50,000/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% , PDAM get support from Local Government to replace around 12,000 water meter in
	Meter reading	Monthly
	Bill delivery	Recorded by PDAM staff when the staff reading water meter in the customer meter card. And then they get the bill when they pay the bill
	Collection system	At "loket" at PDAM office only for the users who delay pays the bill.
		Not cooperate with Bank yet
	Collection rate of billed	80%
Assets	Penalty Rules	Rp. 5,000/month and progressive
	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant (APBN budget)
SPAM IKK (IKK Selopamioro)	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets
	Unit staff	10 staffs (Chief: 1, operator:2, distribution pipe monitoring staff:2, adm/CS staff: 4, night watch:1)
	Existing	1,488 HC as of April 2010 and additional 107 HC in May 2010
	Public hydrant	5 units

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	Proposal from PDAM submitted and presented to Local Government and also DPRD. If it is approved, then Bupati shall issue a Decree on tariff adjustment
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation). But the tariff adjustment usually increase gradually year by year (not one time increase)
Public Consultation	The adjustment is announced to the users though the radio and information to the customers.

**Name of PDAM:** PDAM Kabupaten Pontianak; **IKK: Jungkat**  
**Number of SPAM IKK:** (4) for whole PDAM service areas  
**Number of House Connection:** ( 3,589 ) connections  
**Number of Staff (PDAM)** (45 persons = 29 permanent staffs & 16 temporary staffs)  
**No. of Water Resources:** 4 (rivers) **Staff ratio:** 12.5 (Staff/1,000 connections)  
**Year of Establishment:** 1992

Issues	Description	Countermeasures
Project Preparation	Design	Designed was prepared by Central Satker
	Land Acquisition	The land was granted by community
	Water Right	No SIPA, but PDAM has to pay tax for using ground water or surface water Rp. 90/m3
Operation	Operation Hours	24 hours for the whole PDAM and 6-8 hours/day for the SPAM IKK Jungkat
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	By Supervisory/Control Board
	Staffing:	2 (Civil Engineer), DIII: 1 staffs , High Schools= 36 staffs, Junior High School & Elementary: 6 staffs)
Accounting	Salary	35% of total cost
	Electricity	25% of total cost
	Chemicals, spare parts,	10%, other 30% for O&M cost
	Subsidy from Bupati	Yes for investment and O&M, and also for the electricity in 2008
Training	Cooperation with PERPAMSI	Yes, yearly, in West Kalimantan Province, there is an agreement between the Local Gov to allocate budget from Ministry of Defence bills for the training of PDAM staff in PERPAMSI
	Cooperation with other PDAM	Also cooperate with Water Supply Center in Bekasi and OASEN Water Supply Enterprise of Dutch
Tariffs	Minimum tariff for non commercial	Rp. 900/m3
	Average sales price	Rp. 1,500/m3
	Average Production Cost	Rp. 2,300/m3
	Other income	New house connection & fine for delay payment
	Tariff change period	Based on regulation in every 4 years, but it haven't changed since 2002, recently PDAM proposed every 2 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp.13,250/HH/month

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	Almost all have been installed (100%), except the one that new replacement	
	Meter reading	Monthly	
	Bill delivery	To the Bank of Kalbar, "loket" in PDAM office and the "shop as the representative of PDAM" for IKK Jungkat	
	Collection system		Through "loket" in PDAM just for the customers who requests to pay directly in PDAM office and for the delayed payment (penalty)
			Mostly through the Bank of Kalbar and for IKK Jungkat, it is collected by representative of PDAM in a shop in the market. The representative get fee for the collection
	Collection rate of billed	70%	
	Penalty Rules	Rp. 3,000/month, after giving warning letter after 2 months being unpaid shall be cutoff	
Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati		
Assets	Intake, W/T, Transmission	Grant of Central Government	
	Depreciation of Intake, W/T, Transmission	Yes, they put it as the depreciation cost in their financial statement	
SPAM IKK (IKK Jungkat)	Unit staff	2 operators	
	Existing	182 HC	
	Public hydrant	4 units	

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board and then submit to Bupati. Bupati proposed to DPRD (legislative house of Kabupaten) and then if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	

**Name of PDAM:** PDAM Kota Singkawang  
**Number of SPAM IKK:** (4) for whole PDAM service areas  
**Number of House Connection:** (12.424) connections, active connection is only 12.076  
**Number of Staff (PDAM)** (111 ) **Staff ratio:** 8.9 (Staff/1,000 connections)  
**No. of Water Resources:** 10 (Rivers)  
**Year of Establishment:** 2008 (after separation from Kabupaten Sambas)

Issues	Description	Countermeasures
Project Preparation	Design	Designed was prepared by Central Satker
	Land Acquisition	The land was procured by Local Government
	Water Right	No SIPA is required
Operation	Operation Hours	24 hours for the whole PDAM and the SPAM IKK has not handed over to PDAM yet
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	By supervisory board
	Staffing:	Engineering Division: 44 staffs (1 Civil Engineer); CS: 39 staffs; GA&Finance: 28
Accounting	Salary	46% of total cost
	Electricity	27% of total cost
	Chemicals, spare parts,	5%
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, yearly, in West Kalimantan Province, there is an agreement between the Local Gov to allocate budget from Ministry of Defence bills for the training of PDAM staff in PERPAMSI
	Cooperation with other PDAM	also cooperate with Water Supply Training Center in Bekasi
Tariffs	Minimum tariff for non commercial	Rp. 1,235/m3
	Average sales price	Rp. 1,230/m3
	Average Production Cost	Rp. 1,590/m3
	Other income	Rp. 550,000-Rp.1,050,000/HC
	Tariff change period	Based on regulation in every 4 years, but it haven't changed since 2002, recently PDAM proposed every 2 years
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 50,000-60,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	o the bank of Kalbar, "loket" in PDAM office and the "unit" office
	Collection system	"Loket" in PDAM just for the customers who requests to pay directly in PDAM office and for the delayed payment (penalty)
		Mostly through the Bank of Kalbar
		Through Cooperative such as KUD Mekar Jaya and KUD Sedau
	Collection rate of billed	70%
Assets	Penalty Rules	The penalty fee is 10% of the bill
	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant of Central Government
SPAM IKK (IKK Sei Bulan)	Depreciation of Intake, W/T, Transmission	Yes, they put it as the depreciation cost in their financial statement, but for the project that has just only temporary hand over, depreciation will not be made
	Unit staff	No PDAM staff has been working there since it is not handed over to PDAM yet. But, Dinas PU Kabupaten assigned 6 staffs there 9administration staff: 1; Mechanical electrical: 1 and operator: 4)
	Existing	None, since distribution pipe shall be installed in FY 2010
	Public hydrant	12 but only 1 has being running at the time of survey

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board and then submit to Bupati. Bupati proposed to DPRD (legislative house of Kabupaten) and then if approved Bupati issues the Decree
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	No

**Name of PDAM:** PDAM Kabupaten Penajam Paser Utara; IKK : Sepaku  
**Number of SPAM IKK:** 3 for whole PDAM service areas  
**Number of House Connection:** ( 3,095 ) connections  
**Number of Staff (PDAM)** ( 28 ) **Staff ratio:** 9.0 (Staff/1,000 connections)  
**No. of Water Resources:** 4 (River:2; Spring:1 and Dam:1)  
**Year of Establishment:** 2003

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake & WTP was made by the consultant assigned by Provincial Satker
	Land Acquisition	The land is the land belonged to PDAM
	Water Right	No SIPA is required for the intake for SPAM IKK
Operation	Operation Hours	for SPAM IKK only 48 hours/week depends on the requirement, but for the whole PDAM is 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, but haven't being audited by BPKP since 2006
	Monitoring Rules	Monitoring is conducted by "Badan Pengawas" which is consisted of 5 members (1 Head (Bupati) and 4 members
	Staffing:	28 staffs (1 Director and 2 Head of Divisions, 5 technical staffs, 4 adm/financial staffs, 16 contract staffs)
Accounting	Salary	35% of total cost
	Electricity	20% of total cost
	Chemicals, spare parts,	5%, others for adm & maintenance
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	-
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,200/m3
	Average sales price	Rp. 1,700/m3
	Average Production Cost	Rp. 2,000/m3
	Other income	New connection fee: Rp 1,175,000 /HC
	Tariff change period	Since the PDAM was established oin 2004, then the tariff just following the regualtion of Bupati Pasir No. 35 year 2006, previously following tariff of Kabupaten Grogot. Basically it is difficult to request the increase of tariff now, since PDAM has limited raw water and IPA capacity to threat the water
	Tariff change process	Since it is regualted in national regulation, then it should be at every 4 years. But since currently, PDAM could not provide good services, PDAM has not propose the increasae pf tariff.
Average payment /HH	Rp.60,000/month	

Issues	Description	Countermeasures
	Meter Installation	100%, but mostly are already have been being old
	Meter reading	Monthly
	Bill delivery	To the "loket" at PDAM office
Tariff Collection	Collection system	Through "loket" at PDAM Central Office, Sepaku Unit and Lawe-Lawe IPA installation unit
		Not cooperate with Bank yet
	Collection rate of billed	100%
	Penalty Rules	Penalty is 10% of the billing at the due date month and twice of first month penalty for the second . If not being paid, then will be disconnected on the third month.
	Accounting Report to Bupati	Yearly
Assets	Intake, W/T, Transmission	Yes, from budget of Central Satker and Provincial Satker
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets
SPAM IKK	Unit staff	3 staffs (Administration: 1, operator:2)
(IKK Sepaku)	Existing	234 HC are existed, it is connected with the existing 5l/sec WTP. So, in PDAM Sepaku unit there arer 2 WTPs which are serving 48 hours/week
	Public hydrant	6 units, managed by community, mostly being used during dry season

Item	Water Setting Mechanism
Legal Basis	Bupati's Regulation
Approval Process	Since it is the new PDAM seperated from Kab. Grogot, it has never proposed tariff adjustment yet
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	

**Name of PDAM:** PDAM Tirta Mahakam Kabupaten Kutai Kertanegara; **IKK: Loa Janan**  
**Number of SPAM IKK:** 26 units in total for whole PDAM service areas  
**Number of House Connection:** ( 44,560 ) connections  
**Number of Staff (PDAM)** ( 355 ) **Staff ratio:** 8.0 (Staff/1,000 connections)  
**No. of Water Resources:** 18 (River: 14 and Well: 4)  
**Year of Establishment:** 2002

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake & WTP was made by Central Satker
	Land Acquisition	The land procured by Local Government
	Water Right	No SIPA is required for the intake for SPAM IKK, the SIPA was prepared for producing bottling (ready to drink) water
Operation	Operation Hours	for SPAM IKK only 4-6 hours/day depends on the requirement, but for the whole PDAM is 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Badan Pengawas" which is consisted of 5 members (1 Head (Bupati) and 4 members
	Staffing:	353 staffs (1 President Director and 2 Directors, 40% technical staffs and 60% of adm/financial staffs and 23 contract staffs)
Accounting	Salary	25% of total cost
	Electricity	10% of total cost
	Chemicals, spare parts,	5%, remaining for others
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, yearly invitation from PERPAMSI, and in May 2010, 4 staffs were attending the training in Jakarta financed by PDAM
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m3
	Average sales price	Rp. 3,000/m3
	Average Production Cost	Rp. 1,600/m3
	Other income	New connection fee: Rp 1,008,800 /HC
	Tariff change period	Based on regulation in every 4 years, but the latest Bupati's Decree was in 2002, and then in 2007 based on the discussion with the Control Board in Nov 2007, then the President Director of PDAM issue the Decree of tariff adjustment on 4th December 2007.
	Tariff change process	See Water Setting Mechanism
	Average payment /HH	Rp. 50,000/month

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100% have been installed, and since last year PDAM has allocated budget to replace the water meter that has recorded the usage of more than 5,000 m3	
	Meter reading	Monthly	
	Bill delivery	Yes, monthly basis through the "loket" in Central Office, unit office and local banks that have the agreement with PDAM	
	Collection system		Through the loket in PDAM office and units
			Cooperate also with local Banks/BPR
		Yes, some of the independent "loket" managed by the community and the managers of the independent loket shall get commission from PDAM	
Penalty Rules	Collection rate of billed	100% , only few sometimes are not being paid. It can be concluded 100% paid	
		Penalty is Rp. 2,500/month. But if already 3 months the user haven't ;paid, they are imposed penalty Rp. 100,000 and if it is not paid, then it shall be disconnected	
	Accounting Report to Bupati	Yearly	
Assets	Intake, W/T, Transmission	Yes, from budget of Central Satker and Provincial Satker	
	Depreciation of Intake, W/T, Transmission	Due to only temporary hand over for operational, no depreciation for those assets	
SPAM IKK	Unit staff	3 staffs (Chief of Unit: 1, operator:2)	
(IKK Loa Janan)	Existing	508 HC are existed, it is connected with the existing 2.5 l/sec WTP. So, in Purwajaya Village there arer 2 intakes	
	Public hydrant	5 units, managed by community	

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and since Bupati is the chairman of the Control Board then he will consult with DPRD (Local Legislative House)and if approved, then Bupati shall issued the Decree for the Tariff Adjustment and PDAM's President Director also provides the Decree on the new tariff
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	The adjustment is announced to the users though the radio and information to the customers.

**Name of PDAM:** PDAM Banjarbaru, South Kalimantan; **IKK: Kertak Hanyar**  
**Number of SPAM IKK:** 9 for whole PDAM service areas  
**Number of House Connection:** ( 28,002 ) connections  
**Number of Staff (PDAM)** ( 118 ) **Staff ratio:** 4.2 (Staff/1,000 connections)  
**No. of Water Resources:** 11 (River:9 and well:2)  
**Year of Establishment:** 1998

Issues	Description	Countermeasures
Project Preparation	Design	PDAM prepared design for services area and needed WTP capacity, using PDAM budget.
	Land Acquisition	There is no L/A. PDAM bought land for facilities to people using local government budget
	Water Right	SIPA was not required. Water resources of SPAM IKK Kertak Hanyar was tapped from Banjarmasin raw water pipe. Kertak Hanyar should pay raw water fee to Banjarmasin Rp. 200/m3
Operation	Operation Hours	Production : 24 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 3 staffs; Engineering Division: 83 staffs; General Adm.: 32 staffs
Accounting	Salary	33% of total cost
	Electricity	18% of total cost
	Chemicals, spare parts,	5% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM sent the staffs to follow training
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,720/m3
	Average sales price	Rp. 4,087/m3
	Average Production Cost	Rp. 3,124/m3
	Other income	Rp. 1,372,500/HC
	Tariff change period	Based on Bupati regulation for period tariff change 2009-2010, tariff change is reviewed in every 6 months, so there 4 stages tariff change in the regulation. See Form 2(3)
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 62,500

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% have been installed
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill at PDAM unit, ATM, cooperative unit, store and representative of PDAM office. PDAM pay fee Rp. 700/bill paid to cooperative unit, store and representative of PDAM office
	Collection rate of billed	75% - 80%
	Penalty Rules	Penalty is Rp. 7,500 for the 1st month delay and disconnection for delaying more than 2 months
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	No, Grant from budget of APBN Murni (Provincial Satker)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Kertak Hanyar)	Unit staff	6 staffs: 3 operators and 3 guards
	Existing	2,842 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Banjar Regulation, No. 51 2008
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet DPRD II. If DPRD agree they will ask Bupati to issue a Decree for new tariff. The process for new tariff will take around 1 month
Pricing / Adjustment Mechanism	Tariff change period is 2 years which is done in 4 stage so every 6 months there is tariff increase
Public Consultation	Public socialitation done since 1 months before tariff adjustment takes its effect, by radio, leaflet, invite every Subdistrict Head.



**Name of PDAM:** PDAM Tapin, South Kalimantan; **IKK: Benuang**  
**Number of SPAM IKK:** 9 for whole PDAM service areas  
**Number of House Connection:** ( 9,609 ) connections  
**Number of Staff (PDAM)** ( 60 ) **Staff ratio:** 6.2 (Staff/1,000 connections)  
**No. of Water Resources:** 6 (River:6)  
**Year of Establishment:** 1991

Issues	Description	Countermeasures
Project Preparation	Design	Design was prepared by PDAM using PDAM budget
	Land Acquisition	There was not L/A. PDAM bought land for facilities to people using local government budget
	Water Right	SIPA was not required. Water resources of SPAM IKK Benuang comes from Benuang river
Operation	Operation Hours	Production : 24 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staff; Engineering Division: 28 staffs; GA&Finance: 26 staffs
Accounting	Salary	37% of total cost
	Electricity	21% of total cost
	Chemicals, spare parts,	11% of total cost
	Subsidy from Bupati	There was not subsidy since 2009 because performance of PDAM getting better
Training	Cooperation with PERPAMSI	PDAM sent staffs for training conducted by PERPAMSI and PU. In average number of staff follows training around 5 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 700/m3, see Form 2(3)
	Average sales price	Rp. 1,900/m3
	Average Production Cost	Rp. 2,400/m3
	Other income	Rp. 1,045,000/HC
	Tariff change period	Based on Bupati regulation, last tariff adjustment in 2009 which covers 4 stages in a year and last adjustment before 2009 was in 2001. See Form 2(3).
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 30,000

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% have been installed
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay the bill at PDAM unit office then PDAM unit staff transfer the money to PDAM Tapin bank account.
	Collection rate of billed	85%
	Penalty Rules	Penalty is Rp. 2,500 for the 1st month; Rp. 5,000 for 2nd month and disconnection for the 3rd month
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	No, grant from budget of APBN Murni (Provincial Satker)
SPAM IKK (IKK Benuang)	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
	Unit staff	6 staffs: 1 manager; 1 adm.; 3 operators; and 1 staff for transmission and distribution
	Existing	1,137 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Tapin Decree, No. 188.45005/KUM/2009
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a Decree for new tariff. The process for new tariff will take around 3 month
Pricing / Adjustment Mechanism	Last tariff adjustment in 2009 which covers 4 stages in a year and last adjustment before 2009 was in 2001.
Public Consultation	Public socialitation done since 3 months before tariff adjustment takes its effect, by radio, leaflet, local TV

**Name of PDAM:** PDAM Kabupaten Katingan; **IKK: Kereng Pangsi**  
**Number of SPAM IKK:** 5 for whole PDAM service areas  
**Number of House Connection:** (3,058) connections  
**Number of Staff (PDAM)** (33) **Staff ratio:** 10.8 (Staff/1,000 connections)  
**No. of Water Resources:** 5 (Rivers)  
**Year of Establishment:** 1995

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	21 hours/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	33 staffs (1 Director, technical staffs: 12, adm/financial staffs: 7 and 13 staffs in branch offices)
Accounting	Salary	20% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	10%, remaining for others
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	BUMD Association
Tariffs	Minimum tariff for non commercial	Rp. 1,070/m3
	Average sales price	Rp. 1,417.65/m3
	Average Production Cost	Rp. 3,461.15/m3
	Other income	New connection fee: Rp 800,000/connection
	Tariff change period	Every 3 years
	Tariff change process	See Water Setting Mechanism
	Average payment /HH	Rp. 35,000/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	By PDAM office
	Collection system	By PDAM office
	Collection rate of billed	95%
	Penalty Rules	Disconnection of after 3 months haven't being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
SPAM IKK (IKK Kereng Pangsi)	Depreciation of Intake, W/T, Transmission	Yes
	Unit staff	3 staffs (Chief of Unit: 1, operator:2)
	Existing	348 connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament

**Name of PDAM:** PDAM Kabupaten Gunung Mas; IKK: Tumbang Talaken  
**Number of SPAM IKK:** 4 IKK and 1 Central for whole PDAM service areas  
**Number of House Connection:** ( 2.199 ) connections  
**Number of Staff (PDAM)** ( 44 ) **Staff ratio:** 20.0 (Staff/1,000 connections)  
**No. of Water Resources:** 4 (River:2 and Spring:2)  
**Year of Establishment:** 2007

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	44 staffs ( 1 Director, technical staffs: 16,adm/financial staffs:10 and 17 staffs in branch offices)
Accounting	Salary	25% of total cost
	Electricity	37% of total cost
	Chemicals, spare parts,	5% of total cost
	Subsidy from Bupati	Yes, 50%
Training	Cooperation with PERPAMSI	PERPAMSI & PU (12 persons)
	Cooperation with other PDAM	BUMD Association
Tariffs	Minimum tariff for non commercial	Rp. 2,830/m3
	Average sales price	Rp. 1,593/m3
	Average Production Cost	Rp. 3,260/m3
	Other income	New connection fee: Rp 650,000/connection
	Tariff change period	Every 3 years
	Tariff change Mechanism	See Water Setting Mechanism
Average payment /HH	Rp. 50,000/month	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Not delivered to user, but directly collected at PDAM office during paying the bill
	Collection system	By PDAM office
	Collection rate of billed	90%
	Penalty Rules	Disconnection of after 3 months haven't being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
SPAM IKK (IKK Tumbang Talaken)	Depreciation of Intake, W/T, Transmission	Yes
	Unit staff	3 staffs (Chief of Unit: 1, operator:2)
	Existing	400 connections
Public hydrant		

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament

**Name of PDAM:** PDAM Donggala, Central Sulawesi Province; **IKK: Binangga**  
**Number of SPAM IKK:** 11 for whole PDAM service areas  
**Number of House Connection:** ( 16,831 ) connections  
**Number of Staff (PDAM)** ( 144 ) **Staff ratio:** 8.6 (Staff/1,000 connections)  
**No. of Water Resources:** 6 (River:3; spring:2 and well:1)  
**Year of Establishment:** 1985

Issues	Description	Countermeasures
Project Preparation	Design	DED has been made by satker province using APBN provinve budget
	Land Acquisition	There was not L/A. PDAM bought land for facilities to local people using Kabupaten budget.
	Water Right	SIPA was not required. Water resources of SPAM IKK Binangga coming from Wisolo river in Sambo village.
Operation	Operation Hours	Production : 16 days/month, Distribution : 16 days/month
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staffs; Engineering Division: 71 staffs; General & Finance: 40 staffs; customer relation: 31 staffs
Accounting	Salary	32% of total cost
	Electricity	11% of total cost
	Chemicals, spare parts,	1.3% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI and PU (Wiyung/Surabaya training center). PDAM sent training participant arround 10 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 600/m3, see Form 2(3)
	Average sales price	Rp. 1,640.35/m3
	Average Production Cost	Rp. 1,931.84/m3
	Other income	Rp. 682,000 - Rp. 802,000/HC, see Form 2(3)
	Tariff change period	Latest adjustment approval for tariff change was in 2008 that before in 2008, tariff was changed in 2001
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 48,700

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	80% have been installed, some house connections are not installed water meter due to even there are water meter people does not want to pay water based on water meter recording because of poor water quality.
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	There three types way to pay water bill, (1) cooperative, PDAM provides 3.5% fee of bill paid to cooperative; (2) at unit office, then unit sent money to PDAM bank account; and (3) at post office, PDAM provides fee Rp. 500 per bill paid to post office.
	Collection rate of billed	70%, people complain for water quality and contunity
	Penalty Rules	Penalty is 10% of total bill amount for the 1st month
Assets	Intake, W/T, Transmission	Some units treatment are granted by Gov. of Japan and grant from budget of APBN Murni (Provincial Satker)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
	SPAM IKK	Unit staff
(IKK Binangga)	Existing	132 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Donggala Decree, No. 188.45/0651/PDAM
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they will ask Bupati to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Latest adjustment approval for tariff change was in 2008 that before in 2008, tariff was changed in 2001
Public Consultation	Public socialitation done since 2 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Donggala, Central Sulawesi Province; **IKK: Sabang**  
**Number of SPAM IKK:** 11 for whole PDAM service areas  
**Number of House Connection:** ( 16,831 ) connections  
**Number of Staff (PDAM)** ( 144 ) **Staff ratio:** 8.6 (Staff/1,000 connections)  
**No. of Water Resources:** 6 (River:3; spring:2 and well:1)  
**Year of Establishment:** 1985

Issues	Description	Countermeasures
Project Preparation	Design	DED has been prepared by central satker using central budget
	Land Acquisition	There was not L/A. PDAM bought land for facilities to local people using Kabupaten budget.
	Water Right	SIPA was not required. Water resources of SPAM IKK Sabang is taken from Talaga Lake.
Operation	Operation Hours	No operation yet, due to the WTP facilities was not handed over yet to PDAM
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 1 staffs; Engineering Division: 71 staffs; General & Finance: 40 staffs; customer relation: 31 staffs
Accounting	Salary	32% of total cost
	Electricity	11% of total cost
	Chemicals, spare parts,	1.3% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	PDAM staffs follow training conducted by PERPAMSI and PU (Wiyung/Surabaya training center). PDAM sent training participant around 10 staffs/year
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 600/m <sup>3</sup> , see Form 2(3)
	Average sales price	Rp. 1,640.35/m <sup>3</sup>
	Average Production Cost	Rp. 1,931.84/m <sup>3</sup>
	Other income	Rp. 682,000 - Rp. 802,000/HC, see Form 2(3)
	Tariff change period	Latest adjustment approval for tariff change was in 2008 that before in 2008, tariff was changed in 2001
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 48,700

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	80% have been installed, some house connections are not installed water meter due to even there are water meter people does not want to pay water based on water meter recording because of poor water quality.
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	There three types way to pay water bill, (1) cooperative, PDAM provides 3.5% fee of bill paid to cooperative; (2) at unit office, then unit sent money to PDAM bank account; and (3) at post office, PDAM provides fee Rp. 500 per bill paid to post office.
	Collection rate of billed	70%, people complain for water quality and contunity
	Penalty Rules	Penalty is 10% of total bill amount for the 1st month
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni (Satker Pusat)
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Sabang)	Unit staff	-
	Existing	-
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Donggala Decree, No. 188.45/0651/PDAM
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they will ask Bupati to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Latest adjustment approval for tariff change was in 2008 that before in 2008, tariff was changed in 2001
Public Consultation	Public socialitation done since 2 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Kota Palu, central Sulawesi province; **IKK: Palu/Kawatuna**  
**Number of SPAM IKK:** 4 for whole PDAM service areas  
**Number of House Connection:** ( 1,476 ) connections  
**Number of Staff (PDAM)** ( 21 ) **Staff ratio:** 14.2 (Staff/1,000 connections)  
**No. of Water Resources:** 4 (River:3 and well:1)  
**Year of Establishment:** 2002

Issues	Description	Countermeasures
Project Preparation	Design	DED has been prepared by satker province using APBN province budget
	Land Acquisition	There was not L/A. PDAM bought land for facilities to people using Kabupaten budget around Rp. 12 million
	Water Right	SIPA was not required. Water resources of SPAM IKK Palu is taken from Kawatuna river.
Operation	Operation Hours	Production : 24 hours/day, Distribution : 24 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Monitoring is conducted by "Control Board/Badan Pengawas"
	Staffing:	Management: 3 staffs; Engineering Division: 13 staffs; Finance and adm.: 5 staffs
Accounting	Salary	25% of total cost
	Electricity	0.2% of total cost
	Chemicals, spare parts,	1.64% of total cost
	Subsidy from Bupati	There is no subsidy
Training	Cooperation with PERPAMSI	None, PDAM did not sent his staffs for training.
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 950/m3
	Average sales price	Rp. 2,267/m3
	Average Production Cost	Rp. 4,138/m3
	Other income	Rp. 620,000 - Rp. 840,000/HC, see Form 2(3)
	Tariff change period	Latest adjustment approval for tariff change was in 2005 that before in 2005, tariff was changed in 2002
	Tariff change process	Details in Water Setting Mechanism
	Average payment /HH	Rp. 43,500

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100% have been installed
	Meter reading	Monthly basis
	Bill delivery	Monthly basis
	Collection system	Customer pay water bill at PDAM Palu office. if there are payment delaying, PDAM staff will directly collect to the customers. PDAM has not branch/unit office.
	Collection rate of billed	75%
	Penalty Rules	Penalty is Rp. 2,500 for the 1st month; temporary disconnection for 2nd month and permanent disconnection for the 3rd month
Assets	Accounting Report to Bupati	Yes, Director of PDAM has to submit annual financial report to Bupati
	Intake, W/T, Transmission	Grant from budget of APBN Murni (Provincial Satker)
SPAM IKK (IKK Palu/Kawatuna)	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
	Unit staff	2 staffs for operator
	Existing	240 HC are connected now
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Walikota Palu Decree, No. 02/01 - 03/KPTS/05 - PDAM
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they will ask Walikota to issue a Decree for new tariff
Pricing / Adjustment Mechanism	Latest adjustment approval for tariff change was in 2005 that before in 2005, tariff was changed in 2002
Public Consultation	Public socialitation done since 2 months before tariff adjustment takes its effect, by newspaper, leaflet, electronic media and direct to community

**Name of PDAM:** PDAM Kabupaten Takalar, IKK: Pattalassang  
**Number of SPAM IKK:** 4 IKK & 1 CENTRA for whole PDAM service areas  
**Number of House Connection:** (3,344) connections  
**Number of Staff (PDAM)** (30) **Staff ratio:** 9,0 (Staff/1,000 connections)  
**No. of Water Resources:** 3 (River:1, Well:1, Spring:1)  
**Year of Establishment:** 1982

Issues	Description	Countermeasures
Project Preparation	Design	Designed was made by consultant selected by Central Satker
	Land Acquisition	There is no land acquisition, land is belonged to PDAM
	Water Right	No problem with SIPA
Operation	Operation Hours	10 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Yes
	Staffing:	30 staffs (Director:1, technical staffs: 8,adm/financial staffs: 13; 8 staffs in branch offices)
Accounting	Salary	25% of total cost
	Electricity	22% of total cost
	Chemicals, spare parts,	4% of total cost
	Subsidy from Bupati	Yes
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	MAMINASATA
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m3
	Average sales price	Rp. 2,000/m3
	Average Production Cost	Rp. 2,500/m3
	Other income	New connection fee: Rp 700,000/connection
	Tariff change period	In every 3 years
	Tariff change process	PDAM to Bupati
Average payment /HH	Rp. 50,000/month	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly
	Collection system	By PDAM Office
	Collection rate of billed	100%
	Penalty Rules	Disconnection shall be done after 3 months the bills are not being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Pattalassang)	Unit staff	3 staffs (Chief:1, operator:2)
	Existing	714 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament

**Name of PDAM:** PDAM Kabupaten Takalar; **IKK: Galesong Selatan**  
**Number of SPAM IKK:** 4 IKK & 1 CENTRAL UNIT  
**Number of House Connection:** (3,344) connections  
**Number of Staff (PDAM)** ( 30 ) **Staff ratio:** 12.8 (Staff/1,000 connections)  
**No. of Water Resources:** 3 (River:1, Well:1, Spring:1)  
**Year of Establishment:** 1982

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hours/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	30 staffs (Director:1, technical staffs: 8,adm/financial staffs: 13; 8 staffs in branch offices)
Accounting	Salary	25% of total cost
	Electricity	22% of total cost
	Chemicals, spare parts,	4% of total cost
	Subsidy from Bupati	Yes
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	MAMINASATA
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m3
	Average sales price	Rp. 2,000/m3
	Average Production Cost	Rp. 2,500/m3
	Other income	New connection fee: Rp 700,000/connection
	Tariff change period	In every 3 years
	Tariff change process	PDAM to Bupati
	Average payment /HH	Rp. 50,000/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly
	Collection system	By PDAM Office
	Collection rate of billed	100%
	Penalty Rules	Disconnection shall be done after 3 months the bills are not being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	Yes
SPAM IKK (IKK Galesong Selatan)	Unit staff	3 staffs (Chief:1, operator:2)
	Existing	714 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament



**Name of PDAM:** PDAM Kabupaten Gowa, IKK: Pattalassang  
**Number of SPAM IKK:** 7 for whole PDAM service areas  
**Number of House Connection:** ( 12.714 ) connections  
**Number of Staff (PDAM)** ( 129 ) **Staff ratio:** 10.1 (Staff/1,000 connections)  
**No. of Water Resources:** 7 (Rivers)  
**Year of Establishment:** 1988

Issues	Description	Countermeasures
Project Preparation	Design	Designed intake and capacity of WTP by Dinas Pu Kabupaten, for WTP and reservoir was made by consultant selected by Central Satker
	Land Acquisition	Land acquisition by PDAM by using Kabupaten's Budget
	Water Right	No SIPA
Operation	Operation Hours	10 hours/day
	Accounting Rules	Accounting system should follow PDAM Accounting system, State Accounting System and Laws and regulations applied in Indonesia as regulated in the Decree of State Minister of Local Autonomy No. 8 year 2000 dated on 10 August 2000
	Monitoring Rules	Yes
	Staffing:	129 staffs (Management:4, Technical:34; Adm/financial:40, in branch office:42, contract staff:4)
Accounting	Salary	28% of total cost
	Electricity	8% of total cost
	Chemicals, spare parts,	
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m3
	Average sales price	Rp. 2,000/m3
	Average Production Cost	Rp. 2,765/m3
	Other income	New connection fee: Rp 700,000/connection
	Tariff change period	In every 5 years
	Tariff change process	PDAM to Bupati
	Average payment /HH	Rp. 46,478/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly
	Collection system	By PDAM Office
	Collection rate of billed	80%
	Penalty Rules	Disconnection shall be done after 6 months the bills are not being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
SPAM IKK (IKK Pattalasang)	Depreciation of Intake, W/T, Transmission	Yes
	Unit staff	11 staffs (administrator:3, sanitary engineer: 1, mechanical/electrical: 1, operator:4, analyst:1)
SPAM IKK (IKK Pattalasang)	Existing	767 connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	Consultation to Local Parliament

**Name of PDAM:** PDAM Kabupaten Jeneponto; **IKK: Parapa**  
**Number of SPAM IKK:** 3 IKK & 1 CENTRA for whole PDAM service areas  
**Number of House Connection:** ( 5,560 ) connections  
**Number of Staff (PDAM)** ( 58 ) **Staff ratio:** 10.4 (Staff/1,000 connections)  
**No. of Water Resources:** 3 (River: 1; Well:1; Spring:1)  
**Year of Establishment:** 1988

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	58 staffs (1 Director, technical staffs: 30, adm/financial staffs: 12 and 15 staffs in branch offices)
Accounting	Salary	No data
	Electricity	No data
	Chemicals, spare parts,	No data
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 3,250/m3
	Average sales price	Rp. 3,185.44/m3
	Average Production Cost	Rp. 3,669.98/m3
	Other income	New connection fee: Rp 700,000/connection
	Tariff change period	Every 4 years
	Tariff change process	See Water Setting Mechanism
	Average payment /HH	Rp. 50,000/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Not delivered, collected at PDAM Office during paying the bill
	Collection system	At PDAM Office
	Collection rate of billed	100%
	Penalty Rules	Disconnection of after 3 months haven't being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	Grant
SPAM IKK (IKK Loa Janan)	Depreciation of Intake, W/T, Transmission	Yes
	Unit staff	8 staffs (technical staffs)
	Existing	Connected to existing system
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	By PDAM
Public Consultation	No

**Name of PDAM:** : PDAM Kabupaten Kolaka; IKK: Lakambaga  
**Number of SPAM IKK:** : 8 SPAM IKK  
**Number of House Connection:** : 9746 connections  
**Number of Staff (PDAM)** : 125 persons **Staff ratio:** 12.8 (Staff/1,000 connections)  
**No. of Water Resources:** : River : 7, Spring : 2  
**Year of Establishment:** 1993

Issues	Description	Countermeasures
Project Preparation	Design	DED has been made by Central Satker
	Land Acquisition	There is no land acquisition because water treatment facilities placed in PDAM land
	Water Right	Water resources of SPAM IKK Latambaga coming from Kolaka river. There is no permission for taking the water. PDAM only pay retribution fee to Dinas Pertambangan (Local Mining Department) every month
Operation	Operation Hours	Production : 16 hours/day, Distribution : 24 hours/day
	Accounting Rules	Yes, PDAM Accounting Guidelines based on State Minister of Regional Autonomy Decree No. 8/2000
	Monitoring Rules	Yes
	Staffing:	125 staffs (2 Management, technical staffs: 43,adm/financial staffs: 22; 46 staffs in branch offices and 12 contract staffs)
Accounting	Salary	30% of total cost
	Electricity	15% of total cost
	Chemicals, spare parts,	5% of total cost
	Subsidy from Bupati	There is no subsidy but there is local government investment
Training	Cooperation with PERPAMSI	There are training for PDAM Kolaka staff to Wiyung (Surabaya) or Bekasi. PDAM sent their staff around 2 persons/2 years
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 1,800/m3
	Average sales price	Rp. 2,789.17/m3
	Average Production Cost	Rp. 2,388.65/m3
	Other income	New connection fee: Rp 760,000/connection
	Tariff change period	Last adjustment tariff is in 2005. Before that in 2001
	Tariff change process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet Bupati for discussion. If Bupati agree, they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a regulation from local government for new tariff
Average payment /HH	Rp. 47,000/month	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly
	Collection system	Customer pay the bill to each unit where they become customer
	Collection rate of billed	85%
	Penalty Rules	Rp. 5,000 for the 1st month of delay, Rp. 7,500 after 20th of the 2nd month. Disconnection of after 2 months haven't being paid
Assets	Accounting Report to Bupati	Yearly
	Intake, W/T, Transmission	There is asset from local government investment and grant from JICA
	Depreciation of Intake, W/T, Transmission	There is depreciation cost in financial report
SPAM IKK (IKK Latambaga)	Unit staff	3 staffs (technical staff:1, operator:2)
	Existing	5,486 HC
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Bupati Decree No. 391 2005 date November 24, 2005
Approval Process	PDAM determine the tariff, then those tariff being discussed with Badan Pengawas (Controll Board). If Controll Board agree, they need to meet Bupati for discussion. If Bupati agree, they need to meet DPRD II. If DPRD II agree they will ask Bupati to issue a regulation from local government for new tariff
Pricing / Adjustment Mechanism	Last adjustment tariff is in 2005. Before that in 2001
Public Consultation	Public socialitation will be done since 1 month before tariff adjustment takes its effect, directly to community

**Name of PDAM:** PDAM Kabupaten Minahasa Utara; **IKK: Air Madidi**  
**Number of SPAM IKK:** 8 for whole PDAM service areas  
**Number of House Connection:** ( 5,961 ) connections  
**Number of Staff (PDAM)** ( 112 ) **Staff ratio:** 18.8 (Staff/1,000 connections)  
**No. of Water Resources:** 10 (River:2; Well: 3; Spring:5)  
**Year of Establishment:** 2007 (But appointment of Board of Directors was in 2009 due to newly separated from Kab. Minahasa)

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake and WTP was done by contractor through its manufacturer
	Land Acquisition	Land procured by Local Government
	Water Right	No water right was required during the project period. But since this year Provincial Satker requested all PDAM to prepare the SIPA for their own intake
Operation	Operation Hours	24 hours
	Accounting Rules	No balance statement has been made due to the PDAM's assets handed by the previous PDAM (kab Minahasa) has not being made. Perhaps it will be done in June 2010. Only cash flow from July to Dec 2009 is available
	Monitoring Rules	Monitoring of PDAM performance shall be done by Supervisory/Control Board
	Staffing:	353 staffs (1 President Director and 2 Directors, 40% technical staffs and 60% of adm/financial staffs and 23 contract staffs)
Accounting	Salary	40% of total cost
	Electricity	No data (all expenditures are managed by units now)
	Chemicals, spare parts,	No data (since the assets have not being handed over to Kab. Minahasa Utara from Kab. Minahasa.
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Never participate the training invitation by PERPAMSI due to budget limitation
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m <sup>3</sup>
	Average sales price	No data (no accounting system now, since the assets have not being handed over to PDAM Kab. Minahasa Utara))
	Average Production Cost	No data
	Other income	New connection fee: Rp. 575,000/HC
	Tariff change period	No change since 2004, need improvement of service first before increase the tariff
	Tariff change process	See Water Setting Mechanism
Average payment /HH	Rp. 32,000 and Rp. 37,000	

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%, but for IKK unit, the water meter reading was not done, the bill is only made on minimum payment
	Meter reading	Monthly
	Bill delivery	Delivery directly during collecting the payment door to door and through unit offices
	Collection system	BY PDAM office, the central PDAM office is new in Tumpaan Unit, just around 1 week moved from the previous office
		No cooperation with bank yet
	Collection rate of billed	By unit offices and door to door by units
	Penalty Rules	90%
Accounting Report to Bupati	No penalty, since basically the unpaid bill are due to the customers didn't get water	
Assets	Intake, W/T, Transmission	Yearly
	Depreciation of Intake, W/T, Transmission	Grant from Central Satker budget
SPAM IKK (IKK Air Madidi)	Unit staff	No balance statement has been made due to the PDAM's assets handed by the previous PDAM (kab Minahasa) has not being made. Perhaps it will be done in June 2010.
SPAM IKK (IKK Air Madidi)	Existing	3 staffs (Chief of Unit: 1, operator:1, adm/collector for payment: 1)
	Public hydrant	215 HC
		16 units

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	There is a plan to increase the tariff together with PDAM Minahasa and PDAM Minahasa Utara from Rp. 2,000/m <sup>3</sup> to Rp. 2,900/m <sup>3</sup> . And it has been communicated with Bupati and Commission II of Local legislative (DPRD) and there is a green light from Bupati and DPRD. It will take around 2-3 months for getting the approval from DPRD.
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation).
Public Consultation	After approval from DPRD and Bupati, then PDAM will conduct socialization for around 2 months though public dialogue, radio and mass media

**Name of PDAM:** PDAM Kabupaten Minahasa Selatan; **IKK: Amurang**  
**Number of SPAM IKK:** 8 units for whole PDAM service areas, incl. 2 units of Kab. Minahasa Tenggara  
**Number of House Connection:** ( 7,200 ) connections  
**Number of Staff (PDAM)** ( 91 ) **Staff ratio:** 12.6 (Staff/1,000 connections)  
**No. of Water Resources:** 11 (River:6; Well: 2 and Spring:3)  
**Year of Establishment:** 2007

Issues	Description	Countermeasures
Project Preparation	Design	Design for intake and WTP was done by consultant selected by Central Satker
	Land Acquisition	Land procured by Local Government
	Water Right	No water right was required during the project period. But since this year Provincial Satker requested all PDAM to prepare the SIPA for their own intake
Operation	Operation Hours	24 hours for SPAM IKK Amurang, but average 14 hours for the whole PDAM Kabupaten Minahasa Selatan
	Accounting Rules	No balance statement has been made due to the PDAM's assets handed by the previous PDAM (kab Minahasa) has not being made. Perhaps it will be done in June 2010.
	Monitoring Rules	Monitoring of PDAM performance shall be done by Supervisory/Control Board
	Staffing:	91 staffs ( 1 Director and 2 Head of Divisions, 50% technical staffs and 50% of adm/financial staffs and 2 contract staffs)
Accounting	Salary	50% of total cost
	Electricity	25% of total cost
	Chemicals, spare parts,	5% of total cost, remaining for other cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	The new Director has the attention to allocate budget for staff training which was not done by previous management
	Cooperation with other PDAM	-
Tariffs	Minimum tariff for non commercial	Rp. 2,000/m <sup>3</sup>
	Average sales price	No data (since financial report has just being started to be prepared)
	Average Production Cost	No data (since financial report has just being started to be prepared)
	Other income	New connection fee: Rp. 575,000/HC
	Tariff change period	No change since 2004, need improvement of service first before increase the tariff. But, there is a plan together with PDAM Kab. Minahasa and PDAM Minahasa Utara to increase the tariff base from Rp. 2,000/m <sup>3</sup> to Rp. 2,900/m <sup>3</sup>
	Tariff change process	See Water Setting Mechanism
	Average payment /HH	Rp. 32,000 and Rp. 37,000

Issues	Description	Countermeasures	
Tariff Collection	Meter Installation	100%, but the water meters condition have being too old, need renewal	
	Meter reading	Monthly	
	Bill delivery	Delivery directly during collecting the payment door to door and through unit's "loket"	
	Collection system		By unit offices and door to door by unit staffs
			No cooperation with bank yet
			All expenditures are managed by each unit now. No integrated data for collection system yet
	Collection rate of billed	80%	
Penalty Rules	No penalty		
	Accounting Report to Bupati	Yearly	
Assets	Intake, W/T, Transmission	Grant (APBN budget)	
	Depreciation of Intake, W/T, Transmission	No financial data or audited financial report yet	
SPAM IKK (IKK Air Madidi)	Unit staff	4 staffs (Chief of Unit: 1, operator:1, distribution staff: 1, production staff: 1)	
	Existing	235 HC	
	Public hydrant	6 units, only 5 are active	

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	Proposed by PDAM to Control Board (Badan Pengawas) and since Bupati is the chairman of the Control Board then he will consult with DPRD (Local Legislative House) and if approved, then Bupati shall issued the Decree for the Tariff Adjustment and PDAM's President Director also provides the Decree on the new tariff
Pricing / Adjustment Mechanism	Propose by PDAM every 4 years (based on national regulation)
Public Consultation	The adjustment is announced to the users though the radio and information to the customers.

**Name of PDAM:** BPAM Kabupaten Bone Bolango; **IKK: Suwawa**  
**Number of SPAM IKK:** 2 IKK & 1 CENTRAL UNIT  
**Number of House Connection:** ( 1,060 ) connections  
**Number of Staff (PDAM)** ( 33 ) **Staff ratio:** 31.1 (Staff/1,000 connections)  
**No. of Water Resources:** 1 (River)  
**Year of Establishment:** 2009

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	Get Permission to Ministry of Forestry for land use
	Water Right	No Problem
Operation	Operation Hours	24 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	33 staffs (1 Director and technical staffs:3; adm/financial staffs:3; in branch office:2 and 24 contract staffs)
Accounting	Salary	73% of total cost
	Electricity	18% of total cost
	Chemicals, spare parts,	1% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes, 4 persons training by PERPAMSI
	Cooperation with other PDAM	PAM Gorontalo Organization
Tariffs	Minimum tariff for non commercial	Rp. 570/m3
	Average sales price	Rp 800,-/m3
	Average Production Cost	Rp 1.350,-/m3
	Other income	New connection fee: Rp 495,000/connection
	Tariff change period	Never Change since 2000
	Tariff change process	BPAM to Bupati
	Average payment /HH	Rp. 23,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly, collected in BPAM office
		By BPAM office
	Collection system	No cooperation with Bank yet
	Collection rate of billed	60% (because services are not good)
	Penalty Rules	Disconnection after the bill are not being paid within 3 months
	Accounting Report to Bupati	Not to Bupati, but monthly report to Dinas PU
Assets	Intake, W/T, Transmission	Grant
	Depreciation of Intake, W/T, Transmission	No financial data or audited financial report yet
SPAM IKK	Unit staff	No staff yet, not officially operaton yet, just trial period
(IKK Suwawa)	Existing	545 connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	BPAM
Public Consultation	Consultation to Local Parlement

**Name of PDAM:** BLU SPAM Kabupaten Gorontalo Utara; **IKK:** Kwandang  
**Number of SPAM IKK:** 4 IKK  
**Number of House Connection:** ( 863 ) connections  
**Number of Staff (PDAM)** ( 19 ) **Staff ratio:** 22.0 (Staff/1,000 connections)  
**No. of Water Resources:** 4 (Rivers)  
**Year of Establishment:** 2009

Issues	Description	Countermeasures
Project Preparation	Design	No Problem
	Land Acquisition	No Problem
	Water Right	No Problem
Operation	Operation Hours	10 hour/day
	Accounting Rules	Yes
	Monitoring Rules	Yes
	Staffing:	19 staffs ( 1 Head of BLU; technical staffs:5; adm/financial staffs:7; in branch office:4 and 2 contract staffs)
Accounting	Salary	66% of total cost
	Electricity	18% of total cost
	Chemicals, spare parts,	18% of total cost
	Subsidy from Bupati	No
Training	Cooperation with PERPAMSI	Yes
	Cooperation with other PDAM	PAM Gorontalo Organization
Tariffs	Minimum tariff for non commercial	Rp. 1,050/m <sup>3</sup>
	Average sales price	No data
	Average Production Cost	No data
	Other income	New connection fee: Rp 630,000/connection
	Tariff change period	Every 2 years
	Tariff change process	BLU to Bupati
	Average payment /HH	Rp. 28,000/HH/month

Issues	Description	Countermeasures
Tariff Collection	Meter Installation	100%
	Meter reading	Monthly
	Bill delivery	Monthly, collected in BLU office
	Collection system	By BLU Office
	Collection rate of billed	No financial report yet
Assets	Penalty Rules	Disconnection after the bill are not being paid within 3 months
	Accounting Report to Bupati	Not to Bupati, but monthly report to Dinas PU
	Intake, W/T, Transmission	Grant
SPAM IKK (IKK Kwandang)	Depreciation of Intake, W/T, Transmission	No financial data
	Unit staff	7 staffs (Chief:1, Administration:2, Technical:2, Others:2)
	Existing	375 active connections and 210 non-active connections
	Public hydrant	-

Item	Water Setting Mechanism
Legal Basis	Decree of Bupati
Approval Process	By Bupati
Pricing / Adjustment Mechanism	BLU
Public Consultation	Consultation to Local Parlement

## **APPENDIX 4 RESULTS OF INTERVIEW SURVEY**

### **FOR BENEFFICIARIES**

<i>A - 1</i>	<i>Sumbul</i>	<i>B - 22</i>	<i>Gemarang</i>
<i>A - 2</i>	<i>Kisaran</i>	<i>B - 23</i>	<i>Burneh</i>
<i>B - 1</i>	<i>Nagari Kota Sani</i>	<i>B - 24</i>	<i>Kepung</i>
<i>B - 2</i>	<i>Sumpahan</i>	<i>B - 25</i>	<i>Selopamioro</i>
<i>B - 5</i>	<i>Tandun</i>	<i>B - 26</i>	<i>Gamping</i>
<i>B - 6</i>	<i>Inuman</i>	<i>A - 5</i>	<i>Jungkat</i>
<i>B - 7</i>	<i>Candi Muaro</i>	<i>A - 6</i>	<i>Sei Bulan</i>
<i>B - 8</i>	<i>Lubuk Ruso</i>	<i>B - 27</i>	<i>Sepaku</i>
<i>B - 3</i>	<i>Sungai Pinang</i>	<i>B - 28</i>	<i>Loa Janan</i>
<i>B - 4</i>	<i>Gelumbang</i>	<i>B - 29</i>	<i>Kertak Hanyar</i>
<i>B - 9</i>	<i>Way Lima</i>	<i>B - 30</i>	<i>Binuang</i>
<i>B - 10</i>	<i>Kotapadang</i>	<i>B - 31</i>	<i>Kareng Pangi</i>
<i>B - 11</i>	<i>Selupu Rejang &amp; Curup Timur</i>	<i>B - 32</i>	<i>Tumbang Talakan</i>
<i>B - 12</i>	<i>Cikande</i>	<i>B - 33</i>	<i>Binanga</i>
<i>B - 13</i>	<i>Garawangi</i>	<i>B - 35</i>	<i>Sabang</i>
<i>B - 14</i>	<i>Luragung</i>	<i>B - 34</i>	<i>Palu</i>
<i>B - 15</i>	<i>Ciwaringin</i>	<i>A - 7</i>	<i>Pattallassang</i>
<i>B - 16</i>	<i>Palasari</i>	<i>B - 37</i>	<i>Galesong Selatan</i>
<i>A - 3</i>	<i>Toroh</i>	<i>A - 8</i>	<i>Pattallassang</i>
<i>B - 18</i>	<i>Gubug</i>	<i>B - 36</i>	<i>Parapa</i>
<i>A - 4</i>	<i>Boja</i>	<i>B - 38</i>	<i>Lakambaga</i>
<i>B - 17</i>	<i>Sawit</i>	<i>B - 39</i>	<i>Air Madidi</i>
<i>B - 19</i>	<i>Sulang</i>	<i>B - 40</i>	<i>Amurang</i>
<i>B - 20</i>	<i>Bancar</i>	<i>B - 41</i>	<i>Suwawa</i>
<i>B - 21</i>	<i>Jenangan</i>	<i>B - 42</i>	<i>Kwandang</i>



**1. IKK Tanjung Beringin, Sumbul Sub-District, Dairi District, North Sumatera ( A-1 )**

<b>Result of Social Survey :</b>	:			
<b>Date of Survey</b>	:	6 April 2010		
<b>A. Profile of Customer</b>	:			
Total Number of respondents	:	16 HHs	Male : 31%	Female: 69%
Level of education :	:	Husband	Wife	
Primary School	:	18.8%	18.8%	
Junior High school	:	0%	0%	
Senior High School	:	0%	0%	
University	:	18.8%	18.8%	
Postgraduate	:	0%	0%	
Average size of HHs	:	5.1	Persons	
Adult (> 12yrs)	:	55	Persons	<b>Male :</b> 37% <b>Female:</b> 32%
Children ( 5- 12 yrs)	:	18	Persons	<b>Male :</b> 10% <b>Female:</b> 12%
Children (0- 4 yrs)	:	11	Persons	13%
<b>Occupation:</b>			<b>Income :</b>	
Farmer	:	18.8%	<b>Million Rp</b>	
Trader	:	31.3%	A < 6	6.67
Government employee	:	31.3%	B >6- 12	26.67
Company employee	:	12.5%	C1 >12-18	20
Temporary employee	:	0%	C2 >18-24	0
Agricultural labor	:	6.3%	D >24-36	13.33
Construction labor	:	0%	E > 36	33.33
Pension	:	0%		
Others (etc..)	:	0%		
<b>Properties :</b>				
House and land	Self-owned	100%;	Rent	0%
Telp/handphone (pcs)	2			
TV(pcs)	0.8			
Car	0			
Motorcycle	0.6			
Bicycle	0			
Bank savings	0			
Agricultural land	90%	Wide:	0.2ha	
Cattle (Livestock and poultry)	2.1			
Electricity fee (Rp)	46,688.00			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	0.0	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	0	0		
Bath, Toilet and wash	:	0	0		
Others (such as for for gardens etc.)	:	0	0		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	0	0	0	
b. Water quality	:	0	0	0	
c. Water supply system	:	0	0	0	
d. Water fee	:	0	0	0	
e. Reasons	:	0	0	0	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		0	0	0	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		50%	40%	10%	
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	50%			
river	:	10%			
Others (lake, rain water etc..)	:	40%			
b. Distance of water source	:	82.33	m		
c. Fetching time	:	34.5	minute/day		
d. Who collected water	:				
Adult Male	:	50%			
Adult Female	:	40%			
Boys	:	10%			
Girls	:	0%			
Others (water pump)	:	0%			

**2. IKK Kisaran, Kisaran Timur Sub-District, Asahan District; North Sumatera Province  
( A-2 )**

<b>Result of Social Survey :</b>	:				
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
	:	Male :	54%	Female:	46%
Level of education :	:	Husband	Wife		
Primary School	:	7.7%	8.3%		
Junior High school	:	69.2%	75%		
Senior High School	:	0%	0%		
University	:	15.4%	16.7%		
Postgraduate	:	7.7%	0%		
Average size of HHs	:	5.4	persons		
Adult ( > 12yrs)	:	53	persons	<b>Male:</b>	33% Female: 35%
Children ( 5- 12 yrs)	:	16	persons	<b>Male :</b>	10% Female: 10%
Children (0- 4 yrs)	:	9	persons		11%
<b>Occupation:</b>				<b>Income :</b>	
Farmer	:	0%		Million Rp	
Trader	:	7.7%		A < 6	0%
Government employee	:	46.2%		B >6- 12	6.67%
Company employee	:	23.1%		C1 >12-18	26.67%
Temporary employee	:	0%		C2 >18-24	13.33%
Agricultural labor	:	7.7%		D >24-36	13.33%
Construction labor	:	0%		E > 36	40%
Pension	:	15.4%			
Others (driver, dress maker etc..)	:				
<b>Properties :</b>					
House and land		Self-owned	100%;	Rent	0%
Telp/handphone (pcs)	2.8				
TV(pcs)	1.1				
Car	0.4				
Motorcycle	1.5				
Bicycle	0				
Bank savings	30%				
Agricultural land	40%		Wide :	1.2 Ha	
Cattle (Livestock and poultry)	0				
Electricity fee (Rp)	75000				

<b>. Piped water Usage</b>					
Piped water fee (Rp)	:	32,061	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0		
Bath, Toilet and wash	:	100%	0		
Others (such as for for gardens etc.)	:	100%	0		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	33.33%	33.33%	33.33%	
b. Water quality	:	7%	53%	40%	
c. Water supply system	:	53%	47%	0%	
d. Water fee	:	27%	60%	13%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		47%	13%	40%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		47%	0%	0%	7%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	47%			
river	:	0%			
Others (lake, rain water etc..)	:	7%			
b. Distance of water source	:	0.3	m		
c. Fetching time	:	0	minute/day		
d. Who collected water	:				
Adult Male	:	7%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:	93%			

**3. IKK Nagari Koto Sani, X Koto Singkarak Sub-District Solok District; West Sumatera Province ( B-1 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	27 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHS
	:		Male : 53% Female: 47%
Level of education :	:	Husband	Wife
Primary School	:	14,3%	21,4%
Junior High school	:	7,1%	14,3%
Senior High School	:	35,7%	28,6%
University	:	42,9%	35,7%
Postgraduate	:	0,0%	0,0%
Average size of HHS	:	4.7	persons
Adult ( > 12yrs)	:	44	persons <b>Male : 30% Female:30%</b>
Children ( 5- 12 yrs)	:	15	persons <b>Male : 11% Female: 7%</b>
Children (0- 4 yrs)	:	9	persons <b>Female: 13%</b>
<b>Occupation:</b>			<b>Income :</b>
Farmer	:	27%	Million Rp
Trader	:	27%	A < 6 21,4%
Government employee	:	27%	B >6- 12 14,29%
Company employee	:	0%	C1 >12-18 14,29%
Temporary employee	:	7%	C2 >18-24 7,14%
Agricultural labor	:	0%	D >24-36 21,43%
Construction labor	:	7%	E > 36 21,43%
Pension	:	7%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land		Self-owned 100%; Rent 0%	
Telp/handphone (pcs)		1.53	
TV(pcs)		1.00	
Car		0.07	
Motorcycle		0.87	
Bicycle		0.00	
Bank savings		33%	
Agricultural land		0.23 Ha	
Cattle		0.00	
Electricity fee (Rp)		55600.00	

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	0	Rupiah		
<b>1. Piped water usage</b>		Yes	No	Reasons	
Drinking	:	0	0	0	
Bath, Toilet and wash	:	0	0	0	
Others (such as for gardens etc.)	:	0	0		
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low	
a. Water quantity	:	0	0	0	
b. Water quality	:	0	0	0	
c. Water supply system	:	0	0	0	
d. Water fee	:	0	0	0	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband &Wife	
		0	0	0	
<b>4. Information on existing alternative domestic water source</b>		well	spring	river	others
		0	0	0	0
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	40%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	53%			
b. Distance of water source	:	210.53	m		
c. Fetching time	:	53.67	minute/day		
d. Who collected water	:				
Adult Male	:	60%			
Adult Female	:	13%			
Boys	:	0%			
Girls	:	7%			
Others (water pump )	:	20%			

**4. IKK Sumpahan, Barangin Sub-District Sawahlunto Manucipality; West Sumatera Province ( B-2 )**

<b>Result of Social Survey :</b>				
<b>Date of Survey</b>	:	28 April 2010		
<b>A. Profile of Customer</b>	:			
Total Number of respondents	:	15	HHs	
	:	Male :	47%	Female: 53%
Level of education :	:	Husband	Wife	
Primary School	:	14,3%	13,3%	
Junior High school	:	7,1%	20,0%	
Senior High School	:	71,4%	53,3%	
University	:	7,1%	13,3%	
Postgraduate	:	0,0%	0,0%	
Average size of HHs	:	4,6	persons	
Adult ( > 12yrs)	:	56	persons	<b>Male :</b> 30% <b>Female:</b> 48%
Children ( 5- 12 yrs)	:	6	persons	<b>Male :</b> 3% <b>Female:</b> 6%
Children (0- 4 yrs)	:	6	persons	9%
<b>Occupation:</b>			<b>Income :</b>	
Farmer	:	0%	Million Rp	
Trader	:	27%	A < 6	0,00%
Government employee	:	7%	B >6- 12	0,00%
Company employee	:	20%	C1 >12-18	20,00%
Temporary employee	:	13%	C2 >18-24	13,33%
Agricultural labor	:	0%	D >24-36	46,67%
Construction labor	:	0%	E > 36	20,00%
Pension	:	33%		
Others (driver, dress maker etc..)	:			
<b>Properties :</b>				
House and land		Self-owned 93%	Rent:7%	
Telp/handphone (pcs)		2.13		
TV(pcs)		1.00		
Car		0.13		
Motorcycle		1.40		
Bicycle		0.00		
Bank savings		20%		
Agricultural land		0.49 Ha		
Cattle		0.00		
Electricity fee (Rp)		86,800.00		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	39,633.33	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	87%	13%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	80%	20%	0%	
b. Water quality	:	53%	47%	0%	
c. Water supply system	:	100%	0%	0%	
d. Water fee	:	0%	67%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		60%	0%	33%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		7%	0%	0%	27%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	20%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	73%			
b. Distance of water source	:	1.93	m		
c. Fetching time	:	3.57	minute/day		
d. Who collected water	:				
Adult Male	:	13%			
Adult Female	:	7%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	80%			



## 5. IKK Tandun, Tandun Sub-District Rokan Hulu District; Riau Province ( B-5 )

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	27 April 2010		
<b>A. Profile of Customer</b>	:		
Total Number of respondents	: 15 HHs		
	: Male : 53% Female: 47%		
Level of education :	: Husband Wife		
Primary School	: 20,0% 28,6%		
Junior High school	: 20,0% 28,6%		
Senior High School	: 60,0% 42,9%		
University	: 0,0% 0,0%		
Postgraduate	: 0,0% 0,0%		
Average size of HHs	: 4.9 persons		
Adult ( > 12yrs)	: 53 persons <b>Male :</b> 34% <b>Female:</b> 38%		
Children ( 5- 12 yrs)	: 13 persons <b>Male :</b> 12% <b>Female:</b> 9%		
Children (0- 4 yrs)	: 5 persons 7%		
<b>Occupation:</b>		<b>Income :</b>	
Farmer	: 33%	Million Rp	
Trader	: 33%	A < 6	0,00%
Government employee	: 0%	B >6- 12	13,33%
Company employee	: 13%	C1 >12-18	6,67%%
Temporary employee	: 7%	C2 >18-24	6,67%
Agricultural labor	: 0%	D >24-36	6,67%
Construction labor	: 0%	E > 36	66,67%
Pension	: 7%		
Others (driver, dress maker etc..)	: 0%		
<b>Properties :</b>			
House and land	Self-owned 80%; Rent 20%		
Telp/HP (pcs)	2.80		
TV(pcs)	1.33		
Car	0.53		
Motorcycle	1.33		
Bicycle	0.27		
Bank savings	27%		
Agricultural land	60% Wide : 5.97 Ha		
Cattle	0.67		
Electricity fee (Rp)	140,666.67		

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	26,600.00	Rupiah	
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>
Drinking	:	7%	93%	
Bath, Toilet and wash	:	47%	53%	
Others (such as for gardens etc.)	:	20%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>
a. Water quantity	:	0%	33%	47%
b. Water quality	:	0%	80%	0%
c. Water supply system	:	0%	80%	0%
d. Water fee	:	0%	80%	0%
e. Reasons	:	-	-	-
		Husband 93%	Wife 7%	Husband&Wife
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>
		27%	-	7%
<b>5. Disease</b>		Before (2006)	2009 condition	
Kinds of disease	:	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:	27%		
river	:	0%		
Others (lake, rain water etc..)	:	0%		
b. Distance of water source	:	0%	m	
c. Fetching time	:	80.00	minute/day	
d. Who collected water	:	0.00		
Adult Male	:			
Adult Female	:	0%		
Boys	:	7%		
Girls	:	0%		
Others (water pump )	:			

**6. IKK Inuman, Inuman Sub-District Kuantan Singingi District; Riau Province ( B-6 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	28 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male :	73%      Female: 27%
Level of education :	:	Husband	Wife
Primary School	:	28,6%	42,9%
Junior High school	:	35,7%	28,6%
Senior High School	:	28,6%	14,3%
University	:	7,1%	14,3%
Postgraduate	:	0,0%	0,0%
	:		
Average size of HHs	:	3.7	persons
Adult ( > 12yrs)	:	45	persons <b>Male :</b> 39%      Female: 41%
Children ( 5- 12 yrs)	:	8	persons <b>Male :</b> 9%      Female: 5%
Children (0- 4 yrs)	:	1	persons      2%
	:		
<b>Occupation:</b>		<b>Income :</b>	
Farmer	:	40%	Million Rp
Trader	:	20%	A < 6      7,14%
Government employee	:	7%	B >6- 12      7,14%
Company employee	:	13%	C1 >12-18      7,14%
Temporary employee	:	7%	C2 >18-24      7,14%
Agricultural labor	:	0%	D >24-36      7,14%
Construction labor	:	7%	E > 36      64,29%
Pension	:	0%	
Others (driver, dress maker etc..)	:		
<b>Properties :</b>			
House and land	Self-owned	100%;	Rent 0%
Telp/handphone (pcs)	1.27		
TV(pcs)	0.87		
Car	0.07		
Motorcycle	1.07		
Bicycle	0.13		
Bank savings	27%		
Agricultural land	67%	Wide :	2.02
Cattle	0.00		
Electricity fee (Rp)	96,666.67		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	23,333.33	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	73%	27%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	100%	0%	0%	
b. Water quality	:	100%	0%	0%	
c. Water supply system	:	100%	0%	0%	
d. Water fee	:	0%	100%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		73%	27%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		40%		13%	14%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	0%			
river	:	0%			
Others (lake, rain water etc..)	:				
b. Distance of water source	:	0%	m		
c. Fetching time	:	10.67	minute/day		
d. Who collected water	:	0.00			
Adult Male	:				
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	0%			

**7. IKK Candi Muaro, Maro Sebo Sub-District Muaro Jambi District; Jambi Province  
( B-7 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	27 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male :	40%      Female:      60%
Level of education :	:	Husband	Wife
Primary School	:	38,5%	36,4%
Junior High school	:	0,0%	36,4%
Senior High School	:	61,5%	18,2%
University	:	0,0%	9,1%
Postgraduate	:	0,0%	0,0%
Average size of HHs	:	4,4	Persons
Adult ( > 12yrs)	:	52	Persons <b>Male :</b> 39%      Female:      39%
Children ( 5- 12 yrs)	:	8	Persons <b>Male :</b> 9%      Female:      3%
Children (0- 4 yrs)	:	6	Persons      9%
<b>Occupation:</b>			<b>Income :</b>
Farmer	:	33%	Million Rp
Trader	:	27%	A < 6      0,00%
Government employee	:	7%	B >6- 12      38,46%
Company employee	:	13%	C1 >12-18      38,46%
Temporary employee	:	7%	C2 >18-24      15,38%
Agricultural labor	:	13%	D >24-36      7,69%
Construction labor	:	0%	E > 36      0,00%
Pension	:	0%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned	80%;	Rent      20%
Telp/handphone (pcs)	1.9		
TV(pcs)	1.0		
Car	0.0		
Motorcycle	0.9		
Bicycle	0.5		
Bank savings	13%		
Agricultural land	53%	Wide :	0.0
Cattle	0		
Electricity fee (Rp)	45,466.67		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	22,193.33	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	87%	13%		
Others (such as for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	7%	93%	0%	
b. Water quality	:	0%	100%	0%	
c. Water supply system	:	0%	100%	0%	
d. Water fee	:	7%	93%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>					
	:	Husband 20%	Wife 53%	Husband&Wife 27%	
<b>4. Information on existing alternative domestic water source</b>					
	:	<b>well</b> 100%	<b>spring</b> 0%	<b>river</b> 100%	<b>others</b> 0%
<b>5. Disease</b>		Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	100%			
river	:	100%			
Others (lake, rain water etc..)	:	0%			
b. Distance of water source	:	36 m			
c. Fetching time	:	14 minute/day			
d. Who collected water					
Adult Male	:	7%			
Adult Female	:	40%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	53%			

### 8. IKK Lubuk Ruso, Pemayong Sub-District Batang Hari District; Jambi Province ( B-8 )

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	28 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15 HHs	Male : 53% Female: 47%
Level of education :	:	Husband	Wife
Primary School	:	76,9%	70,0%
Junior High school	:	15,4%	20,0%
Senior High School	:	7,7%	10,0%
University	:	0,0%	0,0%
Postgraduate	:	0,0%	0,0%
Average size of HHs	:	4,9 persons	
Adult ( > 12yrs)	:	52 persons	<b>Male :</b> 35% <b>Female:</b> 41%
Children ( 5- 12 yrs)	:	13 persons	<b>Male :</b> 10% <b>Female:</b> 9%
Children (0- 4 yrs)	:	4 persons	6%
<b>Occupation:</b>		<b>Income :</b>	
Farmer	:	40%	Million Rp
Trader	:	27%	A < 6 0,00%
Government employee	:	0%	B >6- 12 23,08%
Company employee	:	0%	C1 >12-18 38,46%
Temporary employee	:	13%	C2 >18-24 38,46%
Agricultural labor	:	7%	D >24-36 0,00%
Construction labor	:	13%	E > 36 0,00%
Pension	:	0%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned	80%;	Rent:20%
Telp/handphone (pcs)		1.1	
TV(pcs)		0.9	
Car		0.0	
Motorcycle		0.9	
Bicycle		0.1	
Bank savings		0%	
Agricultural land		53%	Wide : 0.0 Ha
Cattle		13%	
Electricity fee (Rp)		55,714.29	

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	31,200.00	Rupiah	
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>
Drinking	:	100%	0%	
Bath, Toilet and wash	:	87%	13%	
Others (such as for gardens etc.)	:	100%	0%	
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>
a. Water quantity	:	0%	100%	0%
b. Water quality	:	13%	87%	0%
c. Water supply system	:	0%	100%	0%
d. Water fee	:	13%	73%	13%
e. Reasons	:	-	-	-
<b>3. Who decided to set piped water connection</b>	:	Husband 27%	Wife 40%	Husband & Wife 33%
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b> <b>others</b>
		100%	0%	100%   0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes
Kinds of disease	:	-	-	-
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:	0%		
river	:	0%		
Others (join well, river, lake, and rain water etc..)	:	100%		
b. Distance of water source	:	43	m	
c. Fetching time	:	17	minute/day	
d. Who collected water	:			
Adult Male	:	7%		
Adult Female	:	47%		
Boys	:	0%		
Girls	:	0%		
Others (water pump )	:	47%		



**9. IKK Tanjung Kerang, Rambutan Sub-District Banyuasin District; South Sumatera. Province ( B-3 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	20 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male : 67%	Female: 33%
Level of education :	:	Husband	Wife
Primary School	:	40,0%	53,3%
Junior High school	:	6,7%	26,7%
Senior High School	:	33,3%	20,0%
University	:	20,0%	0,0%
Postgraduate	:	0,0%	0,0%
	:		
Average size of HHs	:	5.2	persons
Adult ( > 12yrs)	:	58	persons <b>Male :</b> 38% <b>Female:</b> 36%
Children ( 5- 12 yrs)	:	14	persons <b>Male :</b> 12% <b>Female:</b> 6%
Children (0- 4 yrs)	:	6	persons 8%
	:		
<b>Occupation:</b>			<b>Income :</b>
Farmer	:	27%	Million Rp
Trader	:	13%	A < 6 6,67%
Government employee	:	27%	B >6- 12 20,00%
Company employee	:	20%	C1 >12-18 6,67%
Temporary employee	:	7%	C2 >18-24 0,00%
Agricultural labor	:	0%	D >24-36 33,33%
Construction labor	:	0%	E > 36 33,33%
Pension	:	7%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned	100%;	Rent 0%
Telp/handphone (pcs)	2.40		
TV(pcs)	1.00		
Car	0.87		
Motorcycle	1.13		
Bicycle	0.80		
Bank savings	7%		
Agricultural land	67%	Wide :	1.67 Ha
Cattle	1.67		
Electricity fee (Rp)	57,600.00		

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	30,733.33	Rupiah	
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>
Drinking	:	33%	67%	
Bath, Toilet and wash	:	93%	7%	
Others (such as for gardens etc.)	:	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>
a. Water quantity	:	20%	73%	7%
b. Water quality	:	0%	93%	7%
c. Water supply system	:	33%	67%	0%
d. Water fee	:	0%	100%	0%
e. Reasons	:	-	-	-
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife
		60%	40%	0%
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b> <b>others</b>
		86%	0%	7%    7%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes
Kinds of disease	:	-	-	-
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:	93%		
river	:	0%		
Others (join well, river, lake, and rain water etc..)	:	7%		
b. Distance of water source	:	193.00	m	
c. Fetching time	:	44.67	minute/day	
d. Who collected water	:			
Adult Male	:	60%		
Adult Female	:	20%		
Boys	:	0%		
Girls	:	0%		
Others (water pump )	:	20%		

**10. IKK Sungai Rotan-Gelumbang, Sungai Rotan Sub-District, Muara Enim District;  
South Sumatera Province. ( B-4 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	22 April 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15 HHS	Male : 67% Female: 33%
Level of education :	:	Husband	Wife
Primary School	:	46,7%	57,1%
Junior High school	:	20,0%	14,3%
Senior High School	:	20,0%	28,6%
University	:	13,3%	0,0%
Postgraduate	:	0,0%	0,0%
Average size of HHS	:	4.6 persons	
Adult ( > 12yrs)	:	54 persons	<b>Male :</b> 39% <b>Female:</b> 39%
Children ( 5- 12 yrs)	:	9 persons	<b>Male :</b> 9% <b>Female:</b> 4%
Children (0- 4 yrs)	:	6 persons	9%
<b>Occupation:</b>		<b>Income :</b>	
Farmer	:	47%	Million Rp
Trader	:	27%	A < 6 0,00%
Government employee	:	20%	B >6- 12 0,00%
Company employee	:	0%	C1 >12-18 13,33%
Temporary employee	:	0%	C2 >18-24 13,33%
Agricultural labor	:	0%	D >24-36 20,00%
Construction labor	:	0%	E > 36 53,33%
Pension	:	7%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned	93%;	Rent 7%
Telp/handphone (pcs)	2.40		
TV(pcs)	1.07		
Car	0.20		
Motorcycle	1.73		
Bicycle	0.00		
Bank savings	0%		
Agricultural land	87%	Wide :	1.87 Ha
Cattle	0.00		
Electricity fee (Rp)	72,333.33		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	26,541.67	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	80%	20%		
Bath, Toilet and wash	:	80%	20%		
Others (such as for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	73%	7%	0%	
b. Water quality	:	67%	13%	0%	
c. Water supply system	:	47%	33%	0%	
d. Water fee	:	0%	80%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		40%	40%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		73%	0%	7%	0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	40%			
river	:	7%			
Others (lake, rain water etc..)	:	53%			
b. Distance of water source	:	126.47	m		
c. Fetching time	:	26.00	minute/day		
d. Who collected water	:				
Adult Male	:	47%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	53%			

### 11. IKK Way Lima-Pesawaran District, Lampung Province ( B-9 )

<b>Result of Social Survey:</b>				
<b>Date of Survey</b>	:	20 April 2010		
<b>A. Profile of Customer</b>	:			
Total Number of respondents	:	15 HHs		
	:	Male	67%	Female 33%
Level of education :	:	Husband	Wife	:
Primary School	:	60,0%	60,0%	
Junior High school	:	13,3%	6,7%	
Senior High School	:	26,7%	33,3%	
University	:	0,0%	0,0%	
Postgraduate	:	0,0%	0,0%	
	:			
Average size of HHs	:	4,2 persons		
Adult ( > 12yrs)	:	56 persons	Male 48%	Female 39%
Children ( 5- 12 yrs)	:	5 persons	Male 5%	Female 3%
Children (0- 4 yrs	:	3 persons	5%	
	:			
<b>Occupation:</b>	:		<b>Income :</b>	
Farmer	:	13%	Million Rp	
Trader	:	13%	A < 6	6,67%
Government employee	:	0%	B >6- 12	40,00%
Company employee	:	7%	C1 >12-18	33,33%
Temporary employee	:	20%	C2 >18-24	0,00%
Agricultural labor	:	33%	D >24-36	13.33%
Construction labor	:	7%	E > 36	6,67%
Pension	:	7%		
Properties				
House and land :		Self-owned	100%	Rent: 0%
Husband		93%	Wife	7%
Telp/handphone (pcs)		27		
TV(pcs)		15		
Car				
Motorcycle		13		
Bicycle		5		
Bank savings		20%		
Agricultural land		20%		
Cattle				
Electricity fee (Rp)		48,967		

<b>B. Piped water Usage</b>	:			
Piped water fee (Rp)	:	27,800		
	:	Yes	No	Reasons
<b>1. Piped water usage</b>	:			
Drinking	:	13%	87%	
Bath, Toilet and wash	:	100%	0%	
Others (such as for gardens etc.)	:	-	-	
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low
a. Water quantity	:	7%	87%	7%
b. Water quality	:	0%	53%	47%
c. Water supply system	:	0%	93%	7%
d. water fee	:	7%	93%	0%
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>	:			
	:	Husband	Wife	Husband&Wife
	:	73%	27%	0%
<b>4. Information on existing alternative domestic water source</b>	:			
	:	well	spring	river
	:	87%	13%	0%
	:			others
	:			0%
<b>5. Disease</b>	:	Before	2009 condition	Notes
Kinds of disease	:	No	No	
Expenses for cure	:	0	0	
<b>C. Information on condition before SPAM IKK</b>	:			
a. Fetched water from other sources :	:			
well	:	73.3%		
river	:	13.3%		
others	:	13.3%		
b. Distance of water source	:	37.40	M	
c. Fetching time	:	7	minute/day	
d. Who collected water;	:			
Adult Male	:	13%		
Adult Female	:	13%		
Boys	:	0%		
Girls	:	0%		
Others( Adult Male & Adult Female)	:	73%		

## 12. IKK Kota Padang – Rejang Lebong District–Bengkulu Province ( B-10 )

<b>Result of Social Survey:</b>	:				
<b>Date of Survey</b>	:	21 April 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15 HHs			
	:	Male :	53%	Female	47%
	:			:	
Level of education :	:	Husband	Wife		
Primary School	:	46,2%	53,8%		
Junior High School	:	30,8%	7,7%		
Senior High School	:	23,1%	38,5%		
University	:	0,0%	0,0%		
Postgraduate	:	0,0%	0,0%		
	:				
Average size of HHs	:	4.7 persons			
Adult ( > 12yrs)	:	57 persons	Male	44%	Female 36%
Children ( 5- 12 yrs)	:	9 persons	Male	4%	Female 9%
Children (0- 4 yrs)	:	4 persons		6%	
	:				
<b>Occupation:</b>	:		<b>Income :</b>		
Farmer	:	60%	Million Rp		
Trader	:	20%	A < 6	30,77%	
Government employee	:	7%	B >6- 12	7,69%	
Permanent employee	:	0%	C1 >12-18	0,00%	
Temporary employee	:	0%	C2 >18-24	0,00%	
Agricultural labor	:	7%	D >24-36	23,08%	
Construction labor	:	0%	E > 36	38,46%	
Pension	:	7%			
<b>Properties</b>					
House and land :	Self-owned :	100%	rent :	0%	
Telp/handphone (pcs)		1.00			
TV(pcs)		1.00			
Car		0.20			
Motorcycle		0.93			
Bicycle		0.20			
Bank savings		33%			
Agricultural land		73%	Wide:	1.71	
Cattle		0.00			
Electricity fee (Rp)		54,400.00			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	0	Rupiah		
		Yes	No	Reasons	
<b>1. Piped water usage</b>					
Drinking	:	0%	0%		
Bath, Toilet and wash	:	0%	0%		
Others (such as for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low	
a. Water quantity	:	0%	0%	0%	
b. Water quality	:	0%	0%	0%	
c. Water supply system	:	0%	0%	0%	
d. Water fee	:	0%	0%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband &Wife	
	:	0%	0%	0%	
<b>4. Information on existing alternative domestic water source</b>	:	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
	:	0%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)		2009 condition	Notes
Kinds of disease	:	-		-	-
Expenses for cure	:	Before ⊗2006)	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	20%			
river	:	7%			
Others (lake, rain water etc..)	:	67%			
b. Distance of water source	:	166.67	m		
c. Fetching time	:	1.00	minute/day		
d. Who collected water	:				
Adult Male	:	0%			
Adult Female	:	7%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	0%			



### 13. IKK Selupu Rejang – Rejang Lebong Regency- Bengkulu Province ( B-11 )

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	20 April 2010			
<b>A. Profile of Customer</b>	:	15 HHS			
Total Number of respondents		Male :	47%	Female	53%
Level of education :	:	Husband	Wife		
Primary School	:	7,1%	14,3%		
Junior High School	:	21,4%	7,1%		
Senior High School	:	35,7%	78,6%		
University	:	28,6%	0,0%		
Postgraduate	:	7,1%	0,0%		
Average size of HHS	:	4.7	persons		
Adult ( > 12yrs)	:	4.3	persons	Male	46%
Children ( 5- 12 yrs)	:	4	persons	Male	4%
Children (0- 4 yrs)	:	3	persons		Female 1%
<b>Occupation:</b>	:		<b>Income :</b>		
Farmer	:	13%	Million Rp		
Trader	:	27%	A < 6	0,00%	
Government employee	:	13%	B >6- 12	7,14%	
Permanent employee	:	33%	C1 >12-18	0,00%	
Temporary employee	:	0%	C2 >18-24	21,43%	
Agricultural labor	:	0%	D >24-36	0,00%	
Construction labor	:	0%	E > 36	71,43%	
Pension	:	13%			
<b>Properties:</b>					
House and land		Self-owned	100%	Rent	0%
Telephone/ HP (pcs)		2.33			
TV(pcs)		1.00			
Car		0.40			
Motorcycle		1.33			
Bicycle		0.40			
Bank savings		53%			
Agricultural land		20%			
Cattle					
Electricity fee (Rp)		129.000			

B. Piped water Usage					
Piped water fee (Rp)	:	44,666.67	Rupiah		
		Yes	No	Reasons	
1. Piped water usage					
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	0%			
2. Customer satisfaction on	:	Good	Average	Bad/low	
a. Water quantity	:	93%	7%	0%	
b. Water quality	:	100%	0%	0%	
c. Water supply system	:	93%	7%	0%	
d. Water fee	:	0%	100%	0%	
e. Reasons					
3. Who decided to set piped water connection	:	Husband	Wife	Husband & Wife	
	:	87%	13%	0%	
4. Information on existing alternative domestic water source	:	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
	:	60%	0%	0%	0%
5. Disease	:	Before (2006)		2009 condition	Notes
Kinds of disease		-		-	-
Expenses for cure	:	Before (2006)	0.00	FY 2009	0.00
C. Information on condition before SPAM IKK					
a. Fetched water from other sources					
well	:	0%			
river	:	0%			
Others (lake, rain water etc..)	:	0%			
b. Distance of water source	:	0.00	m		
c. Fetching time	:	0.00	minute/day		
d. Who collected water					
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump )	:	0%			

**14. IKK Cikande, Cikande Sub-District, Serang District; Banten Province ( B-12 )**

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	1 June 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
	:	Male :	47%	Female:	53%
Level of education :	:	Husband	Wife		
Primary School	:	40,0 %	60,0 %		
Junior High school	:	33,3 %	26,7 %		
Senior High School	:	20,0 %	13,3 %		
University	:	6,7 %	0,0 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	5,4	persons		
Adult ( > 12yrs)	:	54	persons	<b>Male :</b> 35.80%	Female: 30.86%
Children ( 5- 12 yrs)	:	22	persons	<b>Male :</b> 8.64%	Female: 18.52%
Children (0- 4 yrs)	:	5	persons	6.17%	
	:				
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	20.00%	Million Rp.		
Trader	:	26.67%	< 6	0,00 %	
Government employee	:	6.67%	> 6- 12	0,00%	
Company employee	:	6.67%	>12-18	26,67%	
Temporary employee	:	33.33%	>18-24	26,67%	
Agricultural labor	:	6.67%	>24-36	33,33%	
Construction labor	:	0.00%	>36	13,33%	
Pension	:	0.00%			
Others	:	0.00%			
<b>Properties :</b>					
House and land		Self-owned 100%;	Rent	0%	
Telp/handphone (pcs)		1.5			
TV(pcs)		1.1			
Car		0.1			
Motorcycle		1.3			
Bicycle		0.7			
Bank savings		20%			
Agricultural land		47%	Wide :	0.0	
Cattle		0			
Electricity fee (Rp)		99,100			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	34,700	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	67%	33%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	47%	53%		0%
b. Water quality	:	60%	40%		0%
c. Water supply system	:	60%	40%		0%
d. Water fee	:	27%	53%		20%
e. Reasons	:	-	-		-
<b>3. Who decided to set piped water connection</b>					
	:	Husband	Wife	Husband & Wife	
	:	53%	13%		33%
<b>4. Information on existing alternative domestic water source</b>					
	:	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
	:	93%	0%	7%	0%
<b>5. Disease</b>		Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	93%			
river	:	7%			
Others (join well, river, lake, and rain water etc..)	:	0%			
b. Distance of water source		5	m		
c. Fetching time		15	minute/day		
d. Who collected water					
Adult Male	:	7%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	93%			

## 15- 16 IKK Garawangi- IKK Luragung

### Garawangi/Luragung Sub-District, Kuningan District; West Java Province ( B-13,B-14 )

<b>Result of Social Survey :</b>	:					
<b>Date of Survey</b>	:	25 May 2010				
<b>A. Profile of Customer</b>	:					
Total Number of respondents	:	15	HHs			
	:	Male :	60%	Female:	40%	
Level of education :	:	Husband	Wife			
Primary School	:	25,0 %	28,6 %			
Junior High school	:	37,5 %	57,1 %			
Senior High School	:	0,0 %	0,0 %			
University	:	37,5 %	14,3 %			
Postgraduate	:	0,0 %	0,0 %			
	:					
Average size of HHs	:	4.1	persons			
Adult (> 12yrs)	:	51	Persons	Male:	44%	Female: 39%
Children (5- 12 yrs)	:	8	Persons	Male:	5%	Female: 8%
Children (0- 4 yrs)	:	3	persons	5%		
	:					
<b>Occupation:</b>	:					
Farmer	:	20%	<b>Income</b>			
Trader	:	7%	Million Rp.			
Government employee	:	20%	< 6	12.50%		
Company employee	:	0%	> 6- 12	0,00%		
Temporary employee	:	0%	>12-18	12,50%		
Agricultural labor	:	0%	>18-24	0,00%		
Construction labor	:	0%	>24-36	37,50%		
Pension	:	33%	>36	37,50%		
Others	:	0%				
<b>Properties :</b>	:					
House and land	:	Self-owned	100%;	Rent	0%	
Telp/HP	:	1.53				
TV(pcs)	:	1.13				
Car	:	0.40				
Motorcycle	:	1.13				
Bicycle	:	0.00				
Bank savings	:	27%				
Agricultural land	:	40%	Wide :	1.02 Ha		
Cattle	:	0.00				
Electricity fee (Rp)	:	103,666.67				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:		Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	87%	13%		
Bath, Toilet and wash	:	93%	7%		
Others (such as for for gardens etc.)	:	100%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	100%	0%	0%	
b. Water quality	:	100%	0%	0%	
c. Water supply system	:	100%	0%	0%	
d. Water fee	:	0%	80%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband &Wife	
		60%	40%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		60%			
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	0%			
river	:	0%			
Others ( lake, rain water etc..)	:	0%			
b. Distance of water source	:	0	m		
c. Fetching time	:	0	minute/day		
d. Who collected water					
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:	0%			

17. IKK Ciwaringin, Ciwaringin Sub-District, Cirebon District; West Java Province ( B-15 )

<b>Result of Social Survey :</b>	:			
<b>Date of Survey</b>	:	24 May 2010		
<b>A. Profile of Customer</b>	:			
Total Number of respondents	:	15	HHs	
	:	Male :	57%	Female: 43%
Level of education :	:	Husband	Wife	
Primary School	:	38,5 %	66,7 %	
Junior High school	:	38,5 %	33,3 %	
Senior High School	:	0,0 %	0,0 %	
University	:	23,1 %	0,0 %	
Postgraduate	:	0,0 %	0,0 %	
	:			
Average size of HHs	:	5.3 persons		
Adult ( > 12yrs)	:	54 persons	<b>Male :</b> 36%	Female: 36%
Children ( 5- 12 yrs)	:	13 persons	<b>Male :</b> 9%	Female: 8%
Children (0- 4 yrs)	:	7 persons		9%
	:			
<b>Occupation:</b>	:		<b>Income</b>	
Farmer	:	7%	Million Rp.	
Trader	:	43%	< 6	15,38
Government employee	:	7%	> 6- 12	0,00
Company employee	:	36%	>12-18	15,38
Temporary employee	:	0%	>18-24	0,00
Agricultural labor	:	0%	>24-36	7,69
Construction labor	:	7%	>36	61,54
Pension	:	0%		
Others	:	0%		
<b>Properties :</b>	:			
House and land	:	Self-owned 93%;	Rent	7%
Telp/handphone (pcs)	:	1.93		
TV(pcs)	:	1.21		
Car	:	0.79		
Motorcycle	:	1.43		
Bicycle	:	0.00		
Bank savings	:	60%		
Agricultural land	:	0%	Wide :	0.0 Ha
Cattle (Livestock and poultry)	:	0.00		
Electricity fee (Rp)	:	196928.57		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	0.00	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	0%	0%		
Bath, Toilet and wash	:	0%	0%		
Others (such as for for gardens etc.)	:				
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	0%	0%	0%	
b. Water quality	:	0%	0%	0%	
c. Water supply system	:	0%	0%	0%	
d. Water fee	:	0%	0%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		0%	0%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		0%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	29%			
river	:	0%			
Others (lake, rain water etc..)	:	71%			
b. Distance of water source	:	667.83	m		
c. Fetching time	:	2.31	minute/day		
d. Who collected water					
Adult Male	:	0%			
Adult Female	:	7%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:	0%			



**18. IKK Palasari, Cijeruk Sub-District, Bogor District; West Java Province ( B-16 )**

<b>Result of Social Survey</b>	:				
<b>Date of Survey</b>	:	31- 1 June 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
	:	Male :	40%	Female:	60%
Level of education :	:	Husband	Wife		
Primary School	:	26.7 %	33,3 %		
Junior High school	:	53,3 %	53,3 %		
Senior High School	:	0,0 %	0,0 %		
University	:	20,0 %	13,3 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	4.7	persons		
Adult ( > 12yrs)	:	56	persons	<b>Male :</b>	45% Female: 34%
Children ( 5- 12 yrs)	:	9	persons	<b>Male :</b>	6% Female: 7%
Children (0- 4 yrs)	:	4	persons		6%
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	7%	Million Rp.		
Trader	:	20%	< 6	0,00	
Government employee	:	20%	> 6- 12	0,00	
Company employee	:	20%	>12-18	20,00	
Temporary employee	:	7%	>18-24	20,00	
Agricultural labor	:	0%	>24-36	20,00	
Construction labor	:	7%	>36	40,00	
Pension	:	7%			
Others	:	0%			
<b>Properties :</b>	:				
House and land	:	Self-owned	93%;	Rent	7%
Telp/handphone (pcs)	:	2.80			
TV(pcs)	:	1.07			
Car	:	0.00			
Motorcycle	:	0.87			
Bicycle	:	0.00			
Bank savings	:	73%			
Agricultural land	:	20%	Wide :	0.13	
	:			Ha	
Cattle	:	0.00			
Electricity fee (Rp)	:	88,000.00			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	38,866.67	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	67%	33%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	100%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	20%	60%	0%	
b. Water quality	:	73%	7%	0%	
c. Water supply system	:	33%	47%	0%	
d. Water fee	:	20%	60%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		60%	33%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		67%	0	0	0
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	0%			
river	:	0%			
Others (lake, rain water etc..)	:	0%			
b. Distance of water source	:	0.00	m		
c. Fetching time	:	0.00	minute/day		
d. Who collected water	:				
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:	0%			

**19. IKK Toroh, Toroh Sub-District, Grobogan District, Central Java Province ( A-3 )**

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	16 March 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15 HHs	Male : 45%	Female: 55%	
Level of education :	:	Husband	Wife		
Primary School	:	18.2%	27.3%		
Junior High school	:	45.5%	54.5%		
Senior High School	:	0%	0%		
University	:	36.4%	18.2%		
Postgraduate	:	0%	0%		
Average size of HHs	:	4.3	persons		
Adult (> 12yrs)	:	40	persons	<b>Male :</b> 22%	Female: 41%
Children ( 5- 12 yrs)	:	23	persons	<b>Male :</b> 17%	Female: 91%
Children (0- 4 yrs)	:	1	persons	2%	
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	27.3%	Million Rp.		
Trader	:	0%	< 6	9.1%	
Government employee	:	18.2%	> 6- 12	18.2%	
Company employee	:	9.1%	>12-18	18.2%	
Temporary employee	:	9.1%	>18-24	27.3%	
Agricultural labor	:	9.1%	>24-36	27.3%	
Construction labor	:	0%	>36		
Pension	:	27.3%			
Others	:	0%			
<b>Properties :</b>					
House and land		Self-owned 100%;	Rent 0%		
Telp/handphone (pcs)		1.9			
TV(pcs)		1.4			
Car		0.3			
Motorcycle		1.6			
Bicycle		0			
Bank savings		0			
Agricultural land		56%	Wide :	1.0	
Cattle		0			
Electricity fee (Rp)		99,067			
<b>B. Piped water Usage</b>					

Piped water fee (Rp)	:	42,267	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	53%	47%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	53%	27%	20%	
b. Water quality	:	33%	40%	27%	
c. Water supply system	:	40%	60%	0%	
d. Water fee	:	7%	73%	20%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		53%	27%	20%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		30%	0%	0%	70%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	30%			
river	:	0%			
Others (lake, rain water etc..)	:	70%			
b. Distance of water source	:	35,2	m		
c. Fetching time	:	32	minute/day		
d. Who collected water	:				
Adult Male	:	33%			
Adult Female	:	33%			
Boys	:				
Girls	:				
Others (water pump )	:	33%			

**20. IKK Gubug, Gubug Sub-District, Grobogan District, Central Java Province ( B-18 )**

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	<b>18 May 2010</b>			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
	:	Male :	47%	Female:	53%
Level of education :	:	Husband	Wife		
Primary School	:	7,1 %	7,1 %		
Junior High school	:	78,6 %	57,1 %		
Senior High School	:	0,0 %	0,0 %		
University	:	14,3 %	35,7 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	3.3	persons		
Adult ( > 12yrs)	:	35	persons	Male :	37% Female: 35%
Children ( 5- 12 yrs)	:	7	persons	Male :	6% Female: 8%
Children (0- 4 yrs)	:	7	persons	14%	
	:				
Occupation:	:		<b>Income</b>		
Farmer	:	13%	Million Rp.		
Trader	:	33%	< 6	0,00	
Government employee	:	7%	> 6- 12	21,43	
Company employee	:	20%	>12-18	21,43	
Temporary employee	:	7%	>18-24	14,29	
Agricultural labor	:	0%	>24-36	7,14	
Construction labor	:	0%	>36	35,71	
Pension	:	13%			
Others	:	7%			
Properties :	:				
House and land	:	Self-owned 80% ;	Rent 20%		
Telephone/handphone (pcs)	:	1.73			
TV(pcs)	:	1.00			
Car	:	0.07			
Motorcycle	:	1.00			
Bicycle	:	0.07			
Bank savings	:	60%			
Agricultural land	:	20%	Wide :	0.27	
Cattle	:	0.00			
Electricity fee (Rp)	:	:62,600.00			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	29,500.00	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	27%	33%		
Bath, Toilet and wash	:	53%	7%		
Others (such as for gardens etc.)	:	60%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	53%	7%	0%	
b. Water quality	:	13%	40%	7%	
c. Water supply system	:	53%	7%	0%	
d. Water fee	:	0%	47%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		20%	0%	40%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		93%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	87%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	0%			
b. Distance of water source	:	10.87	m		
c. Fetching time	:	1.67	minute/day		
d. Who collected water	:				
Adult Male	:	7%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	93%			

## 21. IKK Boja, Boja Sub-District, Kendal District, Central Java Province ( A-4 )

Result of Social Survey :					
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15	HHs		
	:	Male :	47%	Female:	53%
Level of education :	:	Husband	Wife		
Primary School	:	10%	25%		
Junior High school	:	80%	66.7%		
Senior High School	:	0%	0%		
University	:	10%	8.3%		
Postgraduate	:	0%	0%		
Average size of HHs	:	4.7	persons		
Adult ( > 12yrs)	:	58	persons	Male :	34% Female: 49%
Children ( 5- 12 yrs)	:	7	persons	Male :	6% Female: 4%
Children (0- 4 yrs)	:	5	persons		7%
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	13.3%	Million Rp.		
Trader	:	6.7%	< 6	6.7%	
Government employee	:	13.3%	> 6- 12	6.7%	
Company employee	:	13.3%	>12-18	13.3%	
Temporary employee	:	6.7%	>18-24	33.3%	
Agricultural labor	:	0%	>24-36	40%	
Construction labor	:	0%	>36		
Pension	:	26.7%			
Others (driver, dress maker etc..)	:	0%			
<b>Properties :</b>					
House and land	Self-owned	100%;	Rent	0%	
Telp/handphone (pcs)	2.4				
TV(pcs)	1.6				
Car	0.06				
Motorcycle	1.2				
Bicycle	0				
Bank savings	25%				
Agricultural land	20%	Wide :	0.25 Ha		
Cattle (Livestock and poultry)	1.06				
Electricity fee (Rp)	96,867				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	66,667	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	93%	7%	0%	
b. Water quality	:	73%	27%	0%	
c. Water supply system	:	93%	7%	0%	
d. Water fee	:	87%	6.5%	6.5%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		67%	33%	0%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		20%	0%	0%	80%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	20%			
river	:	0%			
Others (lake, rain water etc..)	:	0%			
b. Distance of water source	:	3,5	m		
c. Fetching time	:	39	minute/day		
d. Who collected water	:				
Adult Male	:	33%			
Adult Female	:	20%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	47%			



## 22. IKK Sawit, Sawit Sub-District, Boyolali District - Central Java Province ( B-17 )

<b>Result of Social Survey</b>	:				
<b>Date of Survey</b>	:	20 May 2010			
<b>A. Profile of Customer</b>	:				
<b>Total Number of respondents</b>	:	15	HHs		
	:	<b>Male :</b>	67%	<b>Female:</b>	33%
<b>Level of education :</b>	:	Husband	Wife		
<b>Primary School</b>	:	33,3 %	28,6 %		
<b>Junior High school</b>	:	0,0 %	14,3 %		
<b>Senior High School</b>	:	33,3 %	50,0 %		
<b>University</b>	:	33,3 %	7,1 %		
<b>Postgraduate</b>	:	0,0 %	0,0 %		
<b>Average size of HHs</b>	:	3.9	persons		
<b>Adult ( &gt; 12yrs)</b>	:	48	persons	Male :	38% Female: 45%
<b>Children ( 5- 12 yrs)</b>	:	8	persons	Male :	7% Female: 7%
<b>Children (0- 4 yrs)</b>	:	1	persons		2%
<b>Occupation:</b>			<b>Income</b>		
<b>Farmer</b>	:	13%	Million Rp.		
<b>Trader</b>	:	13%	< 6	13,33	
<b>Government employee</b>	:	40%	> 6- 12	0,00	
<b>Company employee</b>	:	0%	>12-18	13,33	
<b>Temporary employee</b>	:	7%	>18-24	6,67	
<b>Agricultural labor</b>	:	7%	>24-36	26,67	
<b>Construction labor</b>	:	0%	>36	40,00	
<b>Pension</b>	:	0%			
<b>Others</b>	:	7%			
<b>Properties :</b>					
<b>House and land</b>		Self-owned 87%	Rent	7%	
<b>Telephone/HP(pcs)</b>		2.07			
<b>TV(pcs)</b>		0.93			
<b>Car</b>		0.21			
<b>Motorcycle</b>		1.07			
<b>Bicycle</b>		0.21			
<b>Bank savings</b>		53%			
<b>Agricultural land</b>		7%	Wide	0.0	
<b>Cattle</b>		0.00			
<b>Electricity fee (Rp)</b>		60,121			

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	26,825.00	Rupiah	
1. Piped water usage		Yes	No	Reasons
Drinking	:	80%	13%	
Bath, Toilet and wash	:	67%	27%	
Others (such as for for gardens etc.)	:	73%		
2. Customer satisfaction on		Good	Average	Bad/low
a. Water quantity	:	87%	7%	0%
b. Water quality	:	87%	7%	0%
c. Water supply system	:	73%	20%	0%
d. Water fee	:	7%	80%	0%
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>	:	Husband 73%	Wife 13%	Husband&Wife 0%
<b>4. Information on existing alternative domestic water source</b>		<b>well</b> 53%	<b>spring</b> 0%	<b>river</b> 0% <b>others</b> 27%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes
Kinds of disease	:	-	-	-
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:	87%		
river	:	0%		
Others (join well, river, lake, and rain water etc..)	:	0%		
b. Distance of water source	:	15.43	m	
c. Fetching time	:	4.29	minute/day	
d. Who collected water	:			
Adult Male	:	0%		
Adult Female	:	20%		
Boys	:	0%		
Girls	:	0%		
Others (water pump or adult male and female)	:	73%		

### 23. IKK Sulang, Rembang District – Central Java Province ( B-19 )

Result of Social Survey					
Date of Survey	:	19 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15	HHs		
	:	Male :	47%	Female:	53%
Level of education :	:	Husband	Wife		
Primary School	:	21,43 %	42,9 %		
Junior High school	:	35,7 %	7,1 %		
Senior High School	:	35,7 %	28,6 %		
University	:	7,1 %	21,4 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	4.6	persons		
Adult ( > 12yrs)	:	54	Persons	Male :	42% Female 36%
Children ( 5- 12 yrs)	:	12	persons	Male :	6% Female 14%
Children (0- 4 yrs)	:	4	persons	6%	
	:				
Occupation:			<b>Income</b>		
Farmer	:	13%	Million Rp.		
Trader	:	20%	< 6	0,00	
Government employee	:	13%	> 6- 12	14,29	
Company employee	:	7%	>12-18	7,14	
Temporary employee	:	0%	>18-24	14,29	
Agricultural labor	:	0%	>24-36	0,00	
Construction labor	:	0%	>36	64,29	
Pension	:	47%			
Others (driver, dress maker etc..)	:	0%			
Properties :					
House and land	Self-owned	100%;	Rent	0%	
Telephone/handphone (pcs)	2.13				
TV(pcs)	1.00				
Car	0.00				
Motorcycle	1.00				
Bicycle	0.00				
Bank savings	40%				
Agricultural land	27%	Wide :			0.03
Cattle (Livestock and poultry)	0.00				
Electricity fee (Rp)	77,533.33				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	72,620.96	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	20%	80%	20%	
Bath, Toilet and wash	:	100%	0%	100%	
Others (such as for gardens etc.)	:	80%		80%	
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	13%	87%	0%	
b. Water quality	:	7%	40%	0%	
c. Water supply system	:	67%	7%	0%	
d. Water fee	:	7%	47%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife	
		60%	13%	7%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		67%	0%	0%	33%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	87%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	0%			
b. Distance of water source	:	313.14	m		
c. Fetching time	:	20.71	minute/day		
d. Who collected water	:				
Adult Male	:	20%			
Adult Female	:	13%			
Boys	:	13%			
Girls	:	0%			
Others (water pump)	:	47%			

## 24. IKK Bancar, Bancar Sub-District, Tuban District – East Java Province ( B-20 )

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	27 May 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15 HHs	Male : 40%	Female: 60%	
Level of education :	:	Husband	Wife		
Primary School	:	31,3 %	37,5 %		
Junior High school	:	6,3 %	25,0 %		
Senior High School	:	43,8 %	31,3 %		
University	:	18,8 %	6,3 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	4.5	persons		
Adult (> 12yrs)	:	52	persons	Male : 37%	Female: 40%
Children (5- 12 yrs)	:	11	persons	Male : 7%	Female: 11%
Children (0- 4 yrs)	:	4	persons	6%	
	:				
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	7%	Million Rp.		
Trader	:	60%	< 6	0,00	
Government employee	:	20%	> 6- 12	6,25	
Company employee	:	7%	>12-18	6,25	
Temporary employee	:	0%	>18-24	43,75	
Agricultural labor	:	0%	>24-36	18,75	
Construction labor	:	0%	>36	25,00	
Pension	:	0%			
Others (driver, dress maker etc..)	:	0%			
<b>Properties :</b>					
House and land		Self-owned 100%;	Rent	0%	
Telephone/HP (pcs)		2.47			
TV(pcs)		1.00			
Car		0.07			
Motorcycle		1.00			
Bicycle		0.07			
Bank savings		53%			
Agricultural land		0%	Wide :	0.0 Ha	
Cattle		0.00			
Electricity fee (Rp)		62,933.33			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	32,966.67	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	60%	40%		
Bath, Toilet and wash	:	93%	7%		
Others (such as for gardens etc.)	:	100%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	47%	47%	0%	
b. Water quality	:	47%	53%	0%	
c. Water supply system	:	100%	0%	0%	
d. Water fee	:	0%	100%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife	
		87%	0%	13%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		73%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	100%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	0%			
b. Distance of water source	:	547.86	m		
c. Fetching time	:	27.14	minute/day		
d. Who collected water	:				
Adult Male	:	33%			
Adult Female	:	7%			
Boys	:	7%			
Girls	:	0%			
Others (water pump)	:	33%			

## 25. IKK Jenangan, Jenangan Sub-District, Ponorogo District – East Java Province ( B-21 )

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	26 May 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male :	40% Female: 60%
Level of education :	:	<b>Husband</b>	<b>Wife</b>
Primary School	:	41,7 %	25,0 %
Junior High school	:	0,0 %	33,3 %
Senior High School	:	50,0 %	41,7 %
University	:	8,3 %	0,0 %
Postgraduate	:	0,0 %	0,0 %
	:		
Average size of HHs	:	4	persons
Adult ( > 12yrs)	:	45	persons <b>Male :</b> 35% <b>Female:</b> 40%
Children ( 5- 12 yrs)	:	9	persons <b>Male :</b> 8% <b>Female:</b> 7%
Children (0- 4 yrs)	:	6	persons 10%
	:		
<b>Occupation:</b>		<b>Income</b>	
Farmer	:	20%	Million Rp.
Trader	:	20%	< 6
Government employee	:	13%	> 6- 12
Company employee	:	0%	>12-18
Temporary employee	:	13%	>18-24
Agricultural labor	:	20%	>24-36
Construction labor	:	13%	>36
Pension	:	0%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned 100%; Rent 0%		
Telp/handphone (pcs)	1.7		
TV(pcs)	1.1		
Car	0.4		
Motorcycle	1.1		
Bicycle	0.3		
Bank savings	20%		
Agricultural land	27%	Wide :	0.0
Cattle	-		
Electricity fee (Rp)	54,000		
<b>B. Piped water Usage</b>			

Piped water fee (Rp)	:	33500	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	47%	53%	0%	
b. Water quality	:	67%	33%	0%	
c. Water supply system	:	93%	7%	0%	
d. Water fee	:	0%	87%	13%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		53%	27%	20%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		47%	33%	7%	13%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	27%			
river	:	20%			
Others (join well, river, lake, and rain water etc..)	:	40%			
b. Distance of water source	:	13%	m		
c. Fetching time	:	327	minute/day		
d. Who collected water					
Adult Male	:	20%			
Adult Female	:	20%			
Boys	:	7%			
Girls	:	13%			
Others (water pump)	:	40%			



**26. IKK Gemarang, Gemarang Sub-District, Madiun District – East Java Province ( B-22 )**

<b>Result of Social Survey :</b>					
<b>Date of Survey</b>	:	26 may 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
		Male :	53%	Female:	47%
Level of education :	:	Husband	Wife		
Primary School	:	46,7 %	40,0 %		
Junior High school	:	26,7 %	53,3 %		
Senior High School	:	20,0 %	0,0 %		
University	:	6,7%	6,7 %		
Postgraduate	:	0,0%	0,0 %		
Average size of HHs	:	3,1	persons		
Adult ( > 12yrs)	:	39	persons	Male :	42.55% Female: 40.43%
Children ( 5- 12 yrs)	:	6	persons	Male :	6.38% Female: 6.38%
Children (0- 4 yrs)	:	2	persons		4.26%
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	20%	Million Rp.		
Trader	:	7%	< 6	0,00	
Government employee	:	7%	> 6- 12	60,00	
Company employee	:	0%	>12-18	13,33	
Temporary employee	:	40%	>18-24	6,67	
Agricultural labor	:	7%	>24-36	6,67	
Construction labor	:	13%	>36	13,33	
Pension	:	7%			
Others (driver, dress maker etc..)	:	20%			
<b>Properties :</b>					
House and land	Self-owned	100%;	Rent	0%	
Telephone/HP (pcs.)	1.5				
TV(pcs.)	1.0				
Car	0.3				
Motorcycle	0.9				
Bicycle	0.8				
Bank savings	33%				
Agricultural land	27%		Wide :	0.0	
Cattle	0				
Electricity fee (Rp)	38,300				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	34,300	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	80%	20%	0%	
b. Water quality	:	100%	0%	0%	
c. Water supply system	:	93%	7%	0%	
d. Water fee	:	0%	93%	7%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife	
		27%	47%	27%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		7%	20%	27%	27%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	20%			
river	:	0%			
Others (join well, river, lake, and rain water etc..)	:	80%			
b. Distance of water source	:	95 m			
c. Fetching time	:	17 minute/day			
d. Who collected water	:				
Adult Male	:	20%			
Adult Female	:	20%			
Boys	:	7%			
Girls	:	0%			
Others (water pump or adult male and female)	:	40%			

**27. IKK Burneh, Burneh Sub-District, Bangkalan District – East Java Province ( B-23 )**

<b>Result of Social Survey :</b>					
<b>Date of Survey</b>	:	25 May 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	14	HHs		
	:	Male :	53%	Female:	47%
Level of education :	:	Husband	Wife		
Primary School	:	7,1 %	23,1 %		
Junior High school	:	21,4 %	15,4 %		
Senior High School	:	57,1 %	53,8 %		
University	:	7,1 %	7,7 %		
Postgraduate	:	7,1 %	0,0 %		
	:				
Average size of HHs	:	3.5	persons		
Adult ( > 12yrs)	:	36	persons	Male :	30% Female: 38%
Children ( 5- 12 yrs)	:	12	persons	Male :	9% Female: 13%
Children (0- 4 yrs)	:	5	persons	9%	
	:				
Occupation:			<b>Income</b>		
Farmer	:	7%	Million Rp.		
Trader	:	27%	< 6	0,00	
Government employee	:	0%	> 6- 12	21,43	
Company employee	:	0%	>12-18	21,43	
Temporary employee	:	7%	>18-24	0,00	
Agricultural labor	:	0%	>24-36	14,29	
Construction labor	:	0%	>36	42,86	
Pension	:	0%			
Others (driver, dress maker etc..)	:	0%			
Properties :					
House and land	Self-owned %;	%			
Telp/HP(pcs)	Rent	1.86			
TV(pcs)		0.93			
Car		0.29			
Motorcycle		1.21			
Bicycle		0.00			
Bank savings		33%			
Agricultural land	7%	Wide :	0.0 Ha		
Cattle (Livestock and poultry)		0.00			
Electricity fee (Rp)		101,000			

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	50,857.14	Rupiah	
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>
Drinking	:	27%	67%	
Bath, Toilet and wash	:	87%	7%	
Others (such as for gardens etc.)	:	93%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>
a. Water quantity	:	33%	53%	0%
b. Water quality	:	13%	73%	0%
c. Water supply system	:	73%	13%	0%
d. Water fee	:	7%	80%	0%
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife
		20%	0%	67%
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b> <b>others</b>
		60%	0%	0%    0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes
Kinds of disease	:	-	-	-
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:	67%		
river	:	0%		
Others (join well, river,lake,and rain water etc..)	:	0%		
b. Distance of water source	:	10.36	m	
c. Fetching time	:	5.77	minute/day	
d. Who collected water	:			
Adult Male	:	20%		
Adult Female	:	7%		
Boys	:	0%		
Girls	:	0%		
Others (water pump or adult male and female)	:	40%		

**28. IKK Kepung, Kepung Sub-District, Kediri District; East Java Province ( B-24 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	27 May 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male : 40%	Female: 60%
Level of education :	:	Husband	Wife
Primary School	:	26,7 %	26,7 %
Junior High school	:	13,3 %	33,3 %
Senior High School	:	46,7 %	33,3 %
University	:	13,3 %	6,7 %
Postgraduate	:	0,0 %	0,0 %
Average size of HHs	:	4,1	persons
Adult ( > 12yrs)	:	45	persons <b>Male :</b> 34% <b>Female:</b> 39%
Children ( 5- 12 yrs)	:	11	persons <b>Male :</b> 10% <b>Female:</b> 8%
Children (0- 4 yrs)	:	6	persons 10%
<b>Occupation:</b>			<b>Income</b>
Farmer	:	20%	Million Rp.
Trader	:	33%	< 6
Government employee	:	7%	> 6- 12
Company employee	:	13%	>12-18
Temporary employee	:	7%	>18-24
Agricultural labor	:	7%	>24-36
Construction labor	:	0%	>36
Pension	:	13%	
Others (driver, dress maker etc..)	:		
<b>Properties :</b>			
House and land	Self-owned	100%;	Rent 0%
Telp/handphone (pcs)	2.4		
TV(pcs)	1.2		
Car	0.3		
Motorcycle	1.5		
Bicycle	0.7		
Bank savings	33%		
Agricultural land	53%	Wide :	0.0
Cattle			
Electricity fee (Rp)	50,200		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	25000	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	80%	20%		
Others (such as for gardens etc.)	:	80%	20%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	93%	7%	0%	
b. Water quality	:	87%	13%	0%	
c. Water supply system	:	100%	0%	0%	
d. Water fee	:	7%	67%	27%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>					
	:	Husband 27%	Wife 33%	Husband & Wife 40%	
<b>4. Information on existing alternative domestic water source</b>					
	:	<b>well</b> 33%	<b>spring</b> 27%	<b>river</b> 40%	<b>others</b> 0
<b>5. Disease</b>		Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	33%			
river	:	27%			
Others (join well, river, lake, and rain water etc..)	:	40%			
b. Distance of water source	:	278	m		
c. Fetching time	:	15	minute/day		
d. Who collected water					
Adult Male	:	13%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump etc)	:	87%			

**29. IKK Selopamioro, Imogiri Sub-District, Bantul District; Yogyakarta Province ( B-25 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	19 May 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15	HHs
	:	Male : 53%	Female: 47%
Level of education :	:	Husband	Wife
Primary School	:	61,5 %	53,8 %
Junior High school	:	23,1 %	30,8 %
Senior High School	:	15,4 %	7,7 %
University	:	0,0 %	7,7 %
Postgraduate	:	0,0 %	0,0%
Average size of HHs	:	4,2	persons
Adult ( > 12yrs)	:	50	persons <b>Male :</b> 41% <b>Female:</b> 38%
Children ( 5- 12 yrs)	:	8	persons <b>Male :</b> 8% <b>Female:</b> 5%
Children (0- 4 yrs)	:	5	persons 8%
<b>Occupation:</b>			<b>Income</b>
Farmer	:	53%	Million Rp.
Trader	:	20%	< 6
Government employee	:	7%	> 6- 12
Company employee	:	0%	>12-18
Temporary employee	:	7%	>18-24
Agricultural labor	:	0%	>24-36
Construction labor	:	13%	>36
Pension	:	0%	
Others (driver, dress maker etc..)	:	0%	
<b>Properties :</b>			
House and land	Self-owned ;		Rent
Telp/handphone (pcs)	1.5		
TV(pcs)	1.1		
Car	0.2		
Motorcycle	1.2		
Bicycle	0.0		
Bank savings	13%		
Agricultural land	80%	Wide :	0.0 Ha
Cattle	-		
Electricity fee (Rp)	33,000		

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	0	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	93%	7%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for gardens etc.)	:				
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	67%	33%	0%	
b. Water quality	:	67%	33%	0%	
c. Water supply system	:	67%	33%	0%	
d. Water fee	:	0%	0%	0%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband &Wife	
		60%	7%	33%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		93%	7%	0%	0%
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00	
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	93%			
river	:	7%			
Others (lake, rain water etc..)	:	0%			
b. Distance of water source	:	633	m		
c. Fetching time	:	29	minute/day		
d. Who collected water					
Adult Male	:	47%			
Adult Female	:	0%			
Boys	:	33%			
Girls	:	0%			
Others (water pump or adult male and female)	:	20%			



### 30. IKK Gamping, Gamping Sub-District, Sleman District; Yogyakarta Province ( B-26 )

<b>Result of Social Survey :</b>					
<b>Date of Survey</b>	:	18 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15	HHs		
	:	Male :	60%	Female:	40%
Level of education :	:	Husband	Wife		
Primary School	:	13,3 %	13,3 %		
Junior High school	:	0,0 %	0,0 %		
Senior High School	:	46,7 %	53,3 %		
University	:	40,0 %	33,3 %		
Postgraduate	:	0,0 %	0,0 %		
	:				
Average size of HHs	:	3,9	persons		
Adult ( > 12yrs)	:	40	persons	<b>Male :</b>	43% Female: 26%
Children ( 5- 12 yrs)	:	10	persons	<b>Male :</b>	16% Female: 2%
Children (0- 4 yrs)	:	8	persons		14%
	:				
<b>Occupation:</b>				<b>Income</b>	
Farmer	:	7%		Million Rp.	
Trader	:	7%	< 6		0,00
Government employee	:	20%	> 6- 12		0,00
Company employee	:	60%	>12-18		26,67
Temporary employee	:	7%	>18-24		20,00
Agricultural labor	:	0%	>24-36		26,67
Construction labor	:	0%	>36		26,67
Pension	:	0%			
Others (driver, dress maker etc..)	:				
<b>Properties :</b>					
House and land	Self-owned 80%;		Rent 20%		
Telp/handphone (pcs)	2.4				
TV(pcs)	1.2				
Car	0.5				
Motorcycle	1.7				
Bicycle	0.2				
Bank savings	53%				
Agricultural land	13%	Wide :			0.0 Ha
Cattle (Livestock and poultry)	0				
Electricity fee (Rp)	71,000				

<b>B. Piped water Usage</b>						
Piped water fee (Rp)	:	42,600	Rupiah			
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>		
Drinking	:	60%	40%			
Bath, Toilet and wash	:	93%	7%			
Others (such as for gardens etc.)	:	93%	7%			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>		
a. Water quantity	:	7%	93%	0%		
b. Water quality	:	0%	100%	0%		
c. Water supply system	:	0%	100%	0%		
<b>d. Water fee</b>	:	<b>0%</b>	<b>67%</b>	<b>33%</b>		
e. Reasons	:					
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	Others	
		33%	0%	20%	47%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>	
		80%	0%	0%	20%	
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes		
Kinds of disease	:	-	-	-		
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00	
<b>C. Information on condition before SPAM IKK</b>						
a. Fetched water from other sources						
well	:	53%				
river	:	0%				
Others (lake, rain water etc..)	:	0%				
b. Distance of water source	:	70	m			
c. Fetching time	:	10	minute/day			
d. Who collected water	:					
Adult Male	:	20%				
Adult Female	:	0%				
Boys	:	0%				
Girls	:	0%				
Others (water pump)	:	74%				

### 31. IKK\_Jungkat, Siantan Sub-District, Pontianak -West Kalimantan Province ( A-5 )

<b>Result of Social Survey :</b>	:				
<b>Date of survey</b>	:	March 30, 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15 HHs	Male :	47%	Female 53%
Level of education :	:	Husband	Wife		
Primary School	:	40%	57.1%		
Junior High school	:	33.3%	35.7%		
Senior High School	:	0%	0%		
University	:	26.7%	7.1%		
Postgraduate	:	0%	0%		
	:				
Average size of HHs	:	5.2	persons		
Adult ( > 12yrs)	:	59	persons	<b>Male :</b>	37% Female: 33%
Children ( 5- 12 yrs)	:	17	persons	<b>Male :</b>	10% Female: 11%
Children (0- 4 yrs)	:	5	persons		
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	13.3%	Million Rp.		
Trader	:	26.7%	< 6	6.25%	
Government employee	:	20%	>6 - 12	6.25%	
Company employee	:	6.7%	>12 - 18	18.75%	
Temporary employee	:	6.7%	> 18 -24	18.75%	
Agricultural labor	:	0%	>24 - 36	0%	
Construction labor	:	0%	>36	50%	
Pension	:	26.7%			
Others	:	0%			
<b>Properties :</b>	:				
House and land	:	Self-owned	100%;	Rent	0 %
Telp/handphone (pcs)	:	2.6			
TV(pcs)	:	1.3			
Car	:	0.1			
Motorcycle	:	1.2			
Bicycle	:	0			
Bank savings	:	47%			
Agricultural land	:	0	Wide :		
Cattle	:	0			
Electricity fee (Rp)	:	121,250			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:		Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	0%	100%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	100%	0%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	13%	0%	87%	
b. Water quality	:	6.5%	6.5%	87%	
c. Water supply system	:	0%	0%		
d. Water fee	:	47%	40%	13%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>					
	:	Husband 40%	Wife 13%	Husband&Wife -	
<b>4. Information on existing alternative domestic water source</b>					
	:	<b>well</b> 0%	<b>spring</b> 0%	<b>river</b> 0%	<b>others</b> 0%
<b>5. Disease</b>					
	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
	:	Before (2006) :	0.00	FY 2009 :	0.00
Expenses for cure	:				
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	15%			
river	:	-			
Others (lake,rain water etc..)	:	40%			
b. Distance of water source					
	:	-	m		
c. Fetching time					
	:	-	minute/day		
d. Who collected water					
Adult Male	:	-			
Adult Female	:	-			
Boys	:	-			
Girls	:	-			
Others (water pump)	:	-			

**32. IKK\_Sei Bulan, Singkawang Utara Sub-District, Singkawang Manucipality - West Kalimantan Province ( A-6 )**

<b>Result of Social Survey :</b>			
<b>Date of Survey</b>	:	31 March 2010	
<b>A. Profile of Customer</b>			
Total Number of respondents	:	15 HHs	
	:	Male :	Female:
Level of education :	:	Husband	Wife
Primary School	:	40,0%	66,7%
Junior High school	:	60,0%	26,7%
Senior High School	:	0,0%	0,0%
University	:	0,0%	6,7%
Postgraduate	:	0,0%	0,0%
Average size of HHs	:	4.7 persons	
Adult ( > 12yrs)	:	46 persons	<b>Male</b> 31% Female: 34%
Children ( 5- 12 yrs)	:	21 persons	<b>Male</b> 18% Female: 11%
Children (0- 4 yrs)	:	16 persons	6%
<b>Occupation:</b>		<b>Income</b>	
Farmer	:	26.7%	Million Rp.
Trader	:	20%	< 6
Government employee	:	20%	>6 - 12
Company employee	:	0	>12 - 18
Temporary employee	:	6.7%	> 18 -24
Agricultural labor	:	26.6%	>24 - 36
Construction labor	:	0	>36
Pension	:	0	
Others (driver, dress maker etc..)	:		
<b>Properties :</b>			
House and land	Self-owned ;100% Rent:0%		
Telp/HP (pcs)	1.7		
TV(pcs)	1.1		
Car	0.1		
Motorcycle	1.2		
Bicycle	0		
Bank savings	0		
Agricultural land	0.3 Wide : 0.0		
Cattle (Livestock and poultry)	0.7		
Electricity fee (Rp)	78333		

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	Rp.		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>
Drinking	:			
Bath, Toilet and wash	:			
Others (such as for for gardens etc.)	:			
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>
a. Water quantity	:			
b. Water quality	:			
c. Water supply system	:			
d. Water fee	:			
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b> <b>others</b>
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes
Kinds of disease	:	-	-	-
Expenses for cure	:	Before (2006) :	0.00	FY 2009 : 0.00
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	:			
river	:			
Others (rain water etc..)	:	Rain water		
b. Distance of water source	:	200	m	
c. Fetching time	:	20	minute/day	
d. Who collected water	:			
Adult Male	:	50%		
Adult Female	:	40%		
Boys	:			
Girls	:	5%		
Others (water pump)	:	All 5%		

**33. IKK\_ Sepaku, Sepaku Sub-District, Penajam Paser Utara District - East Kalimantan Province ( B-27 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	06 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15	HHs		
		Male :	40%	Female :	60%
Level of education :	:	Husband	Wife		
Primary School	:	42,9%	75,0%		
Junior High school	:	35,7%	16,7%		
Senior High School	:	7,1%	8,3%		
University	:	14,3%	0,0%		
Postgraduate	:	0,0%	0,0%		
	:				
Average size of HHs	:	4,5	persons		
Adult ( > 12yrs)	:	53	persons	Male	42%
				Female	37%
Children ( 5- 12 yrs)	:	6	persons	Male	4%
				Female	4%
Children (0- 4 yrs)	:	8	persons	12%	
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	20%	Million Rp.		
Trader	:	7%	< 6	0,00%	
Government employee	:	20%	>6 - 12	14,29%	
Company employee	:	0%	>12 - 18	28,57%	
Temporary employee	:	20%	> 18 -24	7,14%	
Agricultural labor	:	13%	>24 - 36	28,57%	
Construction labor	:	20%	>36	21,43%	
Pension	:	0%			
	:				
<b>Properties</b>					
House and land	Self-owned		93%	Rent	
Telp/HP(pcs)	2.7				
TV(pcs)	1.1				
Car	0.1				
Motorcycle	1.5				
Bicycle	0.4				
Bank savings	33%				
Agricultural land	47%				
Cattle	13%				
Electricity fee (Rp)	62,000				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	35,700			
		Yes	No	Reasons	
<b>1. Piped water usage</b>					
Drinking	:	87%	13%	Buy Gallon refill	
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:				
<b>2. Customer satisfaction on</b>					
	:	Good	Average	Bad/low	
a. Water quantity	:	7%	73%	20%	
b. Water quality	:	0%	60%	40%	
c. Water supply system	:	0%	27%	73%	
d. Water fee	:	7%	67%	27%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>					
		Husband	Wife	Husband&Wife	
		20%	27%	53%	
<b>4. Information on existing alternative domestic water source</b>					
	:	well	spring	river	others
	:	60%	0%	0%	40%
<b>5. Disease</b>					
	:	Before	2009	Notes	
	:		condition		
Kinds of disease	:	No	No		
Expenses for cure	:	No	No		
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	93%			
river	:	0%			
Well &river	:	0%			
b. Distance of water source	:	39	m		
c. Fetching time	:	20	minute/day		
d. Who collected water					
Adult Male	:	36%			
Adult Female	:	14%			
Boys	:	0%			
Girls	:	0%			
Others	:	50%			



**34. IKK\_ Loa Janan, Loa Janan Sub-District, Kutai Kartanegara District - East Kalimantan Province ( B-28 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	04 May 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents		15 HHs			
		Male :	27%	Female :	73%
Level of education :		Husband	Wife		
Primary School	:	15,4%	23,1%		
Junior High school	:	7,7%	6,2%		
Senior High School	:	76,9%	15,4%		
University	:	0,0%	15,45		
Postgraduate	:	0,0%	0,0%		
Average size of HHs	:	4,5 persons			
Adult ( > 12yrs)	:	46 persons	Male	34%	Female 34%
Children ( 5- 12 yrs)	:	6 persons	Male	4%	Female 4%
Children (0- 4 yrs)	:	15 persons		22%	
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	0%	Million Rp.		
Trader	:	20%	< 6	0,00%	
Government employee	:	7%	>6 - 12	0,00%	
Company employee	:	27%	>12 - 18	15,38%	
Temporary employee	:	40%	> 18 -24	30,77%	
Agricultural labor	:	0%	>24 - 36	30,77%	
Construction labor	:	7%	>36	23,08%	
Pension	:	0%			
	:				
<b>Properties</b>					
House and land		Self-owned 100%	Rent	0%	
Telp/handphone (pcs)		2.2			
TV(pcs)		1.2			
Car		0.1			
Motorcycle		1.2			
Bicycle		0.3			
Bank savings		33%			
Agricultural land		13%			
Cattle					
Electricity fee (Rp)		81,400			

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	48,133.00			
	Yes	No	Reasons	
<b>1. Piped water usage</b>				
Drinking	93%	7%	Buy Gallon refill	
Bath, Toilet and wash	93%	7%	Water not enough	
Others (such as for for gardens etc.)				
<b>2. Customer satisfaction on</b>	Good	Average	Bad/low	
a. Water quantity	7%	80%	13%	
b. Water quality	7%	93%	0%	
c. Water supply system	20%	67%	13%	
d. Water fee	0%	67%	33%	
e. Reasons				
<b>3. Who decided to set piped water connection</b>				
	Husband	Wife	Husband&Wife	
	13%	53%	33%	
<b>4. Information on existing alternative domestic water source</b>				
	well	spring	river	others
	60%	0%	0%	40%
<b>5. Disease</b>	Before	2009 condition	Notes	
Kinds of disease	No	7%	gatal	
Expenses for cure	No	300000		
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	67%			
river	7%			
well&river	0%			
b. Distance of water source	140	m		
c. Fetching time	Adult Male	hours/day	25	minit
d. Who collected water				
Adult Male	40%			
Adult Female	7%			
Boys	0%			
Girls	0%			
Others	53%			

**35. IKK\_Kertak Hanyar, Kertak Hanyar Sub-District, Banjar District -South Kalimantan Province ( B-29 )**

<b>Result of Social Survey:</b>							
<b>Date of Survey</b>	:	03 May 2010					
Total Number of respondents	:	15	Male :	47%	Female	53%	
Level of education :	:	Husband		Wife			
Primary School	:	21,4%	26,7%				
Junior High school	:	28,6%	40,0%				
Senior High School	:	42,9%	26,7%				
University	:	0,0%	6,7%				
Postgraduate	:	7,1%	0,0%				
	:						
Average size of HHs	:	4.4	Persons				
Adult ( > 12yrs)	:	52	Persons	Male	36%	Female	42%
Children ( 5- 12 yrs)	:	8	Persons	Male	6%	Female	6%
Children (0- 4 yrs)	:	6	Persons	9%			
	:						
<b>Occupation:</b>	:		<b>Income</b>				
Farmer	:	20%	Million Rp.				
Trader	:	20%	< 6	0,00%			
Government employee	:	13%	>6 - 12	0,00%			
Company employee	:	7%	>12 - 18	6,67%			
Temporary employee	:	7%	> 18 -24	33,33%			
Agricultural labor	:	0%	>24 - 36	33,33%			
Construction labor	:	0%	>36	26,67%			
Pension	:	0%					
Others	:	27%					
<b>Properties</b>							
House and land	Self-owned 100%		0%				
Telp/HP (pcs)	2.53						
TV(pcs)	1.00						
Car	0.07						
Motorcycle	1.33						
Bicycle	0.00						
Bank savings	33%						
Agricultural land	20%	wide	0.20				
Cattle	0.00						
Electricity fee (Rp)	62,066						

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	57,666.67	Rupiah		
		Yes	No	Reasons	
<b>1. Piped water usage</b>					
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low	
a. Water quantity	:	87%	13%	0%	
b. Water quality	:	47%	53%	0%	
c. Water supply system	:	80%	20%	0%	
d. Water fee	:	20%	47%	33%	
e. Reasons					
<b>3. Who decided to set piped water connection</b>		Husband	Wife	Husband & Wife	
	:	67%	33%	0%	
<b>4. Information on existing alternative domestic water source</b>		well	Spring	river	others
	:	60%	0%	13%	13%
<b>5. Disease</b>		Before (2006)		2009 condition	
Kinds of disease		-		-	
Expenses for cure	:	Before (2006)	0.00	FY 2009	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	60%			
river	:	0%			
Others (rain water etc..)	:	40%			
b. Distance of water source		3.67 m			
c. Fetching time		16.67 minute/day			
d. Who collected water					
Adult Male	:	67%			
Adult Female	:	13%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	20%			

**36. IKK\_ Binuang, Binuang Sub-District, Tapin District - South Kalimantan Province  
( B-30 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	06 May 2010			
<b>Total Number of respondents</b>	:	15 HHs			
		Male :	67%	Female :	33%
<b>Level of education :</b>		Husband		Wife	
Primary School	:	42,9%		35,7%	
Junior High school	:	7,1%		21,4%	
Senior High School	:	35,7%		42,9%	
University	:	14,3%		0,0%	
Postgraduate	:	0,0%		0,0%	
<b>Average size of HHs</b>	:	4.1	persons		
<b>Adult ( &gt; 12yrs)</b>	:	38	persons	Male	31%
<b>Children ( 5- 12 yrs)</b>	:	17	persons	Male	15%
<b>Children (0- 4 yrs)</b>	:	6	persons		10%
	:				
<b>Occupation:</b>	:			<b>Income</b>	
Farmer	:	7%		Million Rp.	
Trader	:	27%		< 6	0,00%
Government employee	:	20%		>6 - 12	7,14%
Company employee	:	7%		>12 - 18	14,29%
Temporary employee	:	20%		> 18 -24	14,29%
Agricultural labor	:	0%		>24 - 36	21,43%
Construction labor	:	0%		>36	42,86%
Pension	:	0%			
Others	:	20%			
<b>Properties</b>					
House and land	93%	Self-owned	7%	rent	
Telp/handphone (pcs)	2.00				
TV(pcs)		1.00			
Car		0.20			
Motorcycle		1.40			
Bicycle		0.27			
Bank savings		33%			
Agricultural land		13%	wide	0.20 ha	
Cattle (Livestock and poultry)		0.00			
Electricity fee (Rp)		67,433.33			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	32,600.00	Rupiah		
		Yes	No	Reasons	
<b>1. Piped water usage</b>	:				
Drinking	:	100%	0%		
Bath, Toilet and wash	:	100%	0%		
Others (such as for for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low	
a. Water quantity	:	7%	87%	7%	
b. Water quality	:	20%	80%	0%	
c. Water supply system	:	87%	7%	7%	
d. Water fee	:	0%	87%	13%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>		Husband	Wife	Husband&Wife	
	:	47%	47%	7%	
<b>4. Information on existing alternative domestic water source</b>		well	spring	river	other s
	:	73%	0%	13%	13%
<b>5. Disease</b>	:	Before (2006)		2009 condition	
Kinds of disease	:	-		-	
Expenses for cure	:	Before (2006)	0.00		FY 2009
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:	80%			
river	:	7%			
Others (lake, rain water etc..)	:	13%			
b. Distance of water source	:	128.27	m		
c. Fetching time	:	10.00	minute/day		
d. Who collected water					
Adult Male	:	20%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	80%			

**37. IKK\_Kereng Pangi, Kecamatan Katingan Hilir, Katingan District\_Central Kalimantan Province ( B-31 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	04 May 2010			
Total Number of respondents	:	15 HHs			
		Male :	67%	Female :	33%
Level of education :	:	Husband	Wife		
Primary School	:	33,3%	26,7%		
Junior High School	:	20,0%	26,7%		
Senior High School	:	33,3%	46,7%		
University	:	13,3%	0,0%		
Postgraduate	:	0,0%	0,0%		
	:				
Average size of HHs	:	4.7	persons		
Adult ( > 12yrs)	:	48	persons	Male	31%
Children ( 5- 12 yrs)	:	19	persons	Male	13%
Children (0- 4 yrs)	:	4	persons		6%
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	0%	Million Rp.		
Trader	:	67%	< 6	0,00%	
Government employee	:	7%	>6 - 12	0,00%	
Permanent employee	:	7%	>12 - 18	0,00%	
Temporary employee	:	13%	> 18 -24	0,00%	
Agricultural labor	:	0%	>24 - 36	6,67%	
Construction labor	:	0%	>36	93,33%	
Pension	:	0%			
Properties					
House and land	Self-owned 87%		Rent 13%		
Telp/HP (pcs)	2.87				
TV(pcs)	1.53				
Car	0.33				
Motorcycle	1.60				
Bicycle	0.53				
Bank savings	67%				
Agricultural land	20%	wide	8.07		
Cattle	0.00				
Electricity fee (Rp)	107,333				

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	Rp. 73,466		
		Yes	No	Reasons
<b>1. Piped water usage</b>				
Drinking	:	73%	27%	0%
Bath, Toilet and wash	:	87%	13%	
Others (such as for for gardens etc.)	:	87%		
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low
a. Water quantity	:	73%	0%	7%
b. Water quality	:	73%	7%	0%
c. Water supply system	:	73%	7%	0%
d. Water fee	:	0%	80%	0%
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife
	:	100%	0%	0%
<b>4. Information on existing alternative domestic water source</b>	:	<b>well</b>	<b>spring</b>	<b>river</b>
	:	34%	0%	0%
<b>5. Disease</b>	:	Before (2006)		2009 condition
Kinds of disease	:			
Expenses for cure	:	Before (2006)	0.00	
a. Fetched water from other sources	:			
well	:	0%		
river	:	0%		
buy refill water	:	0%		
Others (such as for for gardens etc.)	:	0%		
b. Distance of water source	:	0.00	m	
c. Fetching time	:	0.00	minute/day	
d. Who collected water	:			
Adult Male	:	0%		
Adult Female	:	0%		
Boys	:	0%		
Girls	:	0%		
Others (water pump)	:	0%		



**38. IKK\_Tumbang Talaken, Manuhing Sub-District, Gunung Mas District-Central Kalimantan Province ( B-32 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	06 May 2010			
Total Number of respondents	:	15 HHs			
	:	Male :	47%	Female	53%
	:			:	
Level of education :	:	Husband		Wife	
Primary School	:	20,0%		20,0%	
Junior High School	:	0,0%		13,3%	
Senior High School	:	60,0%		26,7%	
University	:	20,0%		40,0%	
Postgraduate	:	0,0%		0,0%	
	:				
Average size of HHs	:	5.4	persons		
Adult ( > 12yrs)	:	58	persons	Male	35% Female 37%
Children ( 5- 12 yrs)	:	12	persons	Male	6% Female 9%
Children (0- 4 yrs)	:	11	persons		14%
	:				
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	13%	Million Rp.		
Trader	:	7%	< 6		6,67%
Government employee	:	47%	>6 - 12		6,67%
Permanent employee	:	0%	>12 - 18		6,67%
Temporary employee	:	0%	> 18 -24		0,00%
Agricultural labor	:	0%	>24 - 36		26,67%
Construction labor	:	0%	>36		93,33%
Pension	:	13%			
	:				
	:				
<b>Properties</b>					
House and land		Self-owned 100%			
Telp/handphone (pcs)		2.73			
TV(pcs)		1.00			
Car		0.20			
Motorcycle		1.33			
Bicycle		0.27			
Bank savings		67%			
Agricultural land		67%	wide	4.00	
Cattle (Livestock and poultry)		0.20			
Electricity fee (Rp)		61333.33			

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	62733.33	Rupiah		
	Yes	No	Reasons	
<b>1. Piped water usage</b>				
Drinking	93%	7%		
Bath, Toilet and wash	87%	13%		
Others (such as for for gardens etc.)	87%			
<b>2. Customer satisfaction on</b>	Good	Average	Bad/low	
a. Water quantity	100%	0%	0%	
b. Water quality	87%	13%	0%	
c. Water supply system	100%	0%	0%	
d. Water fee	0%	93%	0%	
e. Reasons	-	-	-	
<b>3. Who decided to set piped water connection</b>	Husband	Wife	Husband & Wife	
	100%	0%	0%	
<b>4. Information on existing alternative domestic water source</b>	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
	40%	0%	0%	0%
<b>5. Disease</b>	Before (2006)		2009 condition	
Kinds of disease				
Expenses for cure	Before (2006)	0.00	FY 2009	
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources				
well	0%			
river	0%			
buy refill water				
Others (such as for gardens etc.)	0%			
b. Distance of water source	0.00 m			
c. Fetching time	0.00 minute/day			
d. Who collected water				
Adult Male	0%			
Adult Female	0%			
Boys	0%			
Girls	0%			
Others (water pump)	0%			

### 39. IKK Binangga- Sigi District - Central Sulawesi Province ( B-33 )

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>		10 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15 HHs			
		Male :	40%	Female :	60%
Level of education :		Husband	Wife		
Primary School	:	21,4%	28,6%		
Junior High school	:	57,1%	735,7%		
Senior High School	:	0,0%	0,0%		
University	:	21,4%	35,7%		
Postgraduate	:	0,0%	28,6%		
Average size of HHs	:	4,7	persons		
Adult ( > 12yrs)	:	55	persons	Male	38% Female 39%
Children ( 5- 12 yrs)	:	14	persons	Male	11% Female 8%
Children (0- 4 yrs)	:	2	persons		3%
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	27%	Million Rp		
Trader	:	27%	< 6	14,29%	
Government employee	:	27%	>6 - 12	14,29%	
Company employee	:	0%	>12-18	14,29%	
Temporary employee	:	0%	>18-24	7,14%	
Agricultural labor	:	0%	>24-36	7,14%	
Construction labor	:	7%	>36	42,86	
Pension	:	7%			
Others (driver, dress maker etc..)	:	7%			
<b>Properties</b>					
House and land		Self-owned 100 % Rent 0%			
Telephone/Hp (pcs)	100%				
TV(pcs)	2,40				
Car	1,07				
Motorcycle	0,07				
Bicycle	1,40				
Bank savings	0,00				
Agricultural land	53%	wide	0,50 ha		
Cattle (Livestock and poultry)	53%				
Electricity fee (Rp)	0,33	Rp	60.400		

<b>B. Piped water Usage</b>						
Piped water fee (Rp)	:	Rp	11.566,67			
		Yes	No	Reasons		
<b>1. Piped water usage</b>						
Drinking	:	40%	60%			
Bath, Toilet and wash	:	100%	0%			
Others (such as for for gardens etc.)	:	0%				
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low		
a. Water quantity	:	67%	33%	0%		
b. Water quality	:	20%	80%	0%		
c. Water supply system	:	93%	7%	0%		
<b>d. Water fee</b>	:	<b>20%</b>	<b>80%</b>	<b>0%</b>		
e. Reasons	:					
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife		
		47%	47%	7%		
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>	
		60%	0%	0%	40%	
<b>5. Disease</b>		Before (2006)		2009 condition		Notes
Kinds of disease	:					
Expenses for cure	:	Before (2006)	0,00		FY 2009	0,00
<b>C. Information on condition before SPAM IKK</b>						
a. Fetched water from other sources						
well	:	60%				
river	:	0%				
Others (join well, river, lake, and rain water etc..)	:	0%				
b. Distance of water source	:	189,87	m			
c. Fetching time	:	19,33	Minute/day			
d. Who collected water						
Adult Male	:	20%				
Adult Female	:	13%				
Boys	:	0%				
Girls	:	0%				
Others (water pump or adult male and female)	:	67%				

**40. IKK Sabang (Damsol) - Donggala District- Central Sulawesi Province ( B-35 )**

<b>Result of Social Survey:</b>							
<b>Date of Survey</b>		13 May 2010					
<b>A. Profile of Customer</b>	:						
Total Number of respondents	:	15 HHs					
	:	Male :	67%	Female :	33%		
Level of education :	:	Husband	Wife				
Primary School	:	20,0%	26,7%				
Junior High school	:	60,0%	53,3%				
Senior High School	:	0,0%	0,0%				
University	:	20,0%	20,0%				
Postgraduate	:	0,0%	0,0%				
	:						
Average size of HHs	:	5,3	persons				
Adult ( > 12yrs)	:	63	persons	Male	41%	Female	38%
Children ( 5- 12 yrs)	:	13	persons	Male	9%	Female	8%
Children (0- 4 yrs)	:	4	persons		5%		
	:						
<b>Occupation:</b>	:			<b>Income</b>			
Farmer	:	47%		Million Rp			
Trader	:	0%		< 6	6,67%		
Government employee	:	27%		>6 - 12	20,00%		
Company employee	:	0%		>12-18	13,33%		
Temporary employee	:	0%		>18-24	13,33%		
Agricultural labor	:	0%		>24-36	33,33%		
Construction labor	:	0%		>36	13,33%		
Pension	:	7%					
Others (driver, dress maker etc..)	:	20%					
<b>Properties</b>							
House and land		100%	Self-owned	0%	rent		
Telephone/Hp (pcs)		1,53					
TV(pcs)		1,00					
Car		0,00					
Motorcycle		0,87					
Bicycle		0,00					
Bank savings		27%					
Agricultural land		80%	wide	1,73	Ha		
Cattle (Livestock and poultry)		0,00					
Electricity fee (Rp)		Rp.	29.133,33				

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	N/A	Rupiah		
	:	Yes	No	Reasons	
<b>1. Piped water usage</b>	:				
Drinking	:	0%	0%		
Bath, Toilet and wash	:	0%	0%		
Others (such as for for gardens etc.)	:	0%			
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low	
a. Water quantity	:	0%	0%	0%	
b. Water quality	:	0%	0%	0%	
c. Water supply system	:	0%	0%	0%	
d. Water fee	:	0%	0%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband & Wife	
	:	0%	0%	0%	
<b>4. Information on existing alternative domestic water source</b>	:	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
	:	0%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)		2009 condition	Notes
Kinds of disease	:				
Expenses for cure	:	Before (2006)	0,00	FY 2009	0,00
<b>C. Information on condition before SPAM IKK</b>	:				
a. Fetched water from other sources	:				
well	:	40%			
river	:	7%			
Others (join well, river, lake, and rain water etc..)	:	0%			
b. Distance of water source	:	213,67	m		
c. Fetching time	:	0,00	minute/day		
d. Who collected water	:				
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump)	:	100%			

#### 41. IKK Kawatuna - Palu Manucipality- Central Sulawesi Province ( B-34 )

<b>Result of Social Survey:</b>	:						
<b>Date of Survey</b>	:	11 May 2010					
<b>A. Profile of Customer</b>	:						
Total Number of respondents	:	15 HHs					
	:	Male :	60%	Female :	40%		
Level of education :	:	Husband		Wife			
Primary School	:	0,0%		7,1%			
Junior High school	:	66,7%		57,1%			
Senior High School	:	0,0%		0,0%			
University	:	33,3%		35,7%			
Postgraduate	:	0,0%		0,0%			
<b>Total</b>	:	100%		93%			
Average size of HHs	:	4,3 persons					
Adult ( > 12yrs)	:	43 persons		Male	31%	Female	35%
Children ( 5- 12 yrs)	:	12 persons		Male	6%	Female	9%
Children (0- 4 yrs)	:	10 persons			15%		
<b>Occupation:</b>	:			<b>Income</b>			
Farmer	:	0%		Million Rp			
Trader	:	7%		< 6	6,67%		
Government employee	:	60%		>6 - 12	0,0%		
Company employee	:	7%		>12-18	13,33%		
Temporary employee	:	7%		>18-24	6,67%		
Agricultural labor	:	0%		>24-36	40,00%		
Construction labor	:	0%		>36	33,33%		
Pension	:	13%					
Others (driver, dress maker etc..)	:	7%					
<b>Properties</b>							
House and land	93%	Self-owne d	7%	rent			
Telephone/handphone (pcs)	2,47						
TV(pcs)	0,93						
Car	0,07						
Motorcycle	0,93						
Bicycle	0,00						
Bank savings	67%						
Agricultural land	0%	wide				0,00	
Cattle (Livestock and poultry)	0,00						
Electricity fee (Rp)							58.133,33

<b>B. Piped water Usage</b>	:					
Piped water fee (Rp)	:	40.538,46				
	:	Yes	Reasons			
<b>1. Piped water usage</b>	:					
Drinking	:	93%	7%			
Bath, Toilet and wash	:	100%	0%			
Others (such as for for gardens etc.)	:	0%				
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low		
a. Water quantity	:	93%	7%	0%		
b. Water quality	:	87%	13%	0%		
c. Water supply system	:	100%	0%	0%		
d. Water fee	:	7%	93%	0%		
e. Reasons	:					
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife		
	:	53%	0%	47%		
<b>4. Information on existing alternative domestic water source</b>	:	<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>	
	:	0%	7%	0%	20%	
<b>5. Disease</b>	:	Before (2006)	2009 condition			
Kinds of disease	:					
Expenses for cure	:	Before (2006)	0,00	2009		
	:					
	:					
<b>C. Information on condition before</b>	:					
a. Fetched water from other sources	:					
well	:	7%				
river	:	0%				
Others (join well, river, lake,and rain water etc..)	:	0%				
b. Distance of water source	:	284,00	m			
c. Fetching time	:	17,00	minute/day			
d. Who collected water	:					
Adult Male	:	13%				
Adult Female	:	0%				
Boys	:	0%				
Girls	:	0%				
Others (water pump or adult male and female)	:	13%				



**42. IKK\_Pattalasang, Pattalasang Sub-District, Takalar District\_South Sulawesi Province ( A-7 )**

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	24 March 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	HHs		
	:	Male :	46%	Female:	54%
Level of education :	:	Husband	Wife		
Primary School	:	0%	15.4%		
Junior High school	:	61.5%	69.2%		
Senior High School	:	0%	0%		
University	:	38.5%	15.4%		
Postgraduate	:	0%	0%		
	:				
Average size of HHs	:	3.9	persons		
Adult (> 12yrs)	:	47	persons	<b>Male :</b>	41%
Children (5- 12 yrs)	:	12	persons	<b>Male :</b>	8%
Children (0- 4 yrs)	:	1	persons		Female: 12%
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	7.7%	Million Rp		
Trader	:	15.4%	< 6	6.67	
Government employee	:	30.8%	>6 - 12	13.33	
Company employee	:	0%	>12-18	6.67	
Temporary employee	:	0%	>18-24	13.33	
Agricultural labor	:	0%	>24-36	6.67	
Construction labor	:	0%	>36	53.33	
Pension	:	46.2%			
Others (driver, dress maker etc..)	:	0%			
<b>Properties :</b>	:				
House and land	:	Self-owned	100%;	Rent	0%
Telp/handphone (pcs)	:	2.3			
TV(pcs)	:	1.4			
Car	:	0.2			
Motorcycle	:	1.1			
Bicycle	:	0			
Bank savings	:	73%			
Agricultural land	:	-	Wide :	0.0	
Cattle (Livestock and poultry)	:	0			
Electricity fee (Rp)	:	79,033.-			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	45,214	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0%		
Bath, Toilet and wash	:	93%	7%		
Others (such as for for gardens etc.)	:	87%	23%		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	60%	20%	7%	
b. Water quality	:	67%	20%	7%	
c. Water supply system	:	93%	7%	0%	
d. Water fee	:	0%	87%	13%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		60%	-	20%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
<b>5. Disease</b>	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:				
river	:				
Others (lake,rain water etc..)	:				
b. Distance of water source	:	150.3	m		
c. Fetching time	:	n/a	minute/day		
d. Who collected water	:				
Adult Male	:	27%			
Adult Female	:	33%			
Boys	:	7%			
Girls	:	7%			
Others (water pump or adult male and female)	:				

**43. IKK Galesong Selatan, Galesong Selatan Sub-District, Takalar District, South Sulawesi Province ( B-37 )**

<b>Result of Social Survey :</b>	:				
<b>Date of Survey</b>	:	March 25, 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15	HHs		
	:	Male :	46%	Female:	54%
Level of education :	:	Husband	Wife		
Primary School	:	69.2%	75%		
Junior High school	:	30.8%	16.7%		
Senior High School	:	0%	0%		
University	:	0%	8.3%		
Postgraduate	:	0%	0%		
Average size of HHs	:	4.9	persons		
Adult (> 12yrs)	:	55	persons	<b>Male :</b>	32%
Children (5- 12 yrs)	:	17	persons	<b>Male :</b>	14%
Children (0- 4 yrs)	:	6	persons		8%
				<b>Female:</b>	38%
				<b>Female:</b>	8%
<b>Occupation:</b>			<b>Income</b>		
Farmer	:	46.2%	Million Rp		
Trader	:	46.2%	< 6	37.50	%
Government employee	:	7.6%	>6 - 12	12.50	%
Company employee	:	0%	>12-18	12.50	%
Temporary employee	:	0%	>18-24	18.75	%
Agricultural labor	:	0%	>24-36	12.50	%
Construction labor	:	0%	>36	6.25	%
Pension	:	0%			
Others	:	0%			
<b>Properties :</b>					
House and land		Self-owned	100%;	Rent	0%
Telp/handphone (pcs)		1.2			
TV(pcs)		0.9			
Car		0.1			
Motorcycle		0.6			
Bicycle		0			
Bank savings		47%			
Agricultural land		n/a		Wide :	0.0
Cattle (Livestock and poultry)		0			
Electricity fee (Rp)		47,583,-			

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:	49,333.-	Rupiah		
<b>1. Piped water usage</b>		<b>Yes</b>	<b>No</b>	<b>Reasons</b>	
Drinking	:	100%	0		
Bath, Toilet and wash	:	100%	0		
Others	:	100%	0		
<b>2. Customer satisfaction on</b>		<b>Good</b>	<b>Average</b>	<b>Bad/low</b>	
a. Water quantity	:	80%	7%	0%	
b. Water quality	:	73%	7%	0%	
c. Water supply system	:	80%	0%	0%	
d. Water fee	:	20%	47%	7%	
e. Reasons	:	-	-	-	
<b>3. Who decided to set piped water connection</b>	:	Husband	Wife	Husband&Wife	
		60%	27%	13%	
<b>4. Information on existing alternative domestic water source</b>		<b>well</b>	<b>spring</b>	<b>river</b>	<b>others</b>
		n/a	n/a	n/a	n/a
	:	Before (2006)	2009 condition	Notes	
Kinds of disease	:	-	-	-	
Expenses for cure	:	Before (2006) :	0.00	FY 2009 :	0.00
<b>C. Information on condition before SPAM IKK</b>					
a. Fetched water from other sources					
well	:				
river	:				
Others (lake,rain water etc..)	:				
b. Distance of water source	:	723	m		
c. Fetching time	:		minute/day		
d. Who collected water	:				
Adult Male	:	40%			
Adult Female	:	60%			
Boys	:	7%			
Girls	:	7%			
Others (water pump or adult male and female)	:				

**44. IKK\_Pattalasang, Pattalasang Sub-District, Gowa District\_South Sulawesi Province ( A-8 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	25 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	HHs			
		Male :	Female :		
Level of education :		Husband	Wife		
Primary School	:	33,3%	50,0%		
Junior High school	:	50,0%	50,0%		
Senior High School	:	0,0%	0,0%		
University	:	16,7%	0,0%		
Postgraduate	:	0,0%	0,0%		
Average size of HHs	:	5.1	persons		
Adult (> 12yrs)	:	52	persons	Male 34.2%	Female 34.2%
Children ( 5- 12 yrs)	:	17	persons	Male 14.3	Female 7.3%
Children (0- 4 yrs)	:	7	persons	9.1 %	
<b>Occupation:</b>		<b>Income</b>			
Farmer	:	20%	Million Rp		
Trader	:	53.3%	< 6	8,33%	
Government employee	:	6.7%	>6 - 12	0,0%	
Company employee	:	6.7%	>12-18	8,33%	
Temporary employee	:	6.7%	>18-24	25,00%	
Agricultural labor	:	0	>24-36	8,33%	
Construction labor	:		>36	5%	
Pension	:	6.6%			
<b>Properties</b>					
House and land		Self-owned		Rent	
Telephone/HP (pcs)					
TV(pcs)					
Car					
Motorcycle					
Bicycle					
Bank savings					
Agricultural land					
Cattle					
Electricity fee (Rp)					

<b>B. Piped water Usage</b>					
Piped water fee (Rp)	:				
		Yes	No	Reasons	
<b>1. Piped water usage</b>					
Drinking	:	100%			
Bath, Toilet and wash	:	100%			
Others (such as for for gardens etc.)		100%			
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low	
a. Water quantity	:	100%	0%		
b. Water quality	:	90%	10%		
c. Water supply system	:	80%	20%		
d. Water fee	:		100%		
e. Reasons					
<b>3. Who decided to set piped water connection</b>					
	:	Husband	Wife	Husband & Wife	
	:	80%	10%	10%	
<b>4. Information on domestic water source existing alternative</b>					
		Well	Spring	River	TubeWell
		0	0	0	
<b>5. Disease</b>		Before 2006	2009	Notes	
Kinds of disease	:	No			
Expenses for cure	:	No			
<b>C. Information SPAM IKK on condition before SPAM IKK</b>					
a. Fetched water from other sources	:				
Shallow well	:	100%			
river	:				
Others	:				
b. Distance of water source	:	200	m		
c. Fetching time	:	Adult Male	hours/day		
d. Who collected water					
Adult Male	:	20%			
Adult Female	:	70%			
Boys	:	0%			
Girls	:	10%			
	:				
	:				

#### 45. IKK Parapa – Jeneponto District – Sulsel ( B-36 )

<b>Result of Social Survey:</b>	:						
<b>Date of Survey</b>	:	11 May 2010					
<b>A. Profile of Customer</b>	:						
Total Number of respondents	:	15 HHs					
	:	Male :	27%	Female :	73%		
Level of education :	:	Husband	Wife				
Primary School	:	33,3%	40,0%				
Junior High School	:	66,7%	60,0%				
Senior High School	:	0,0%	0,0%				
University	:	0,0%	0,0%				
Postgraduate	:	0,0%	0,0%				
	:						
Average size of HHs	:	5,1 persons					
Adult ( > 12yrs)	:	62	persons	Male	43%	Female	38%
Children ( 5- 12 yrs)	:	13	persons	Male	8%	Female	9%
Children (0- 4 yrs)	:	2	persons	3%			
	:						
<b>Occupation:</b>	:		<b>Income</b>				
Farmer	:	27%	Million Rp				
Trader	:	13%	< 6	13,3%			
Government employee	:	7%	>6 - 12	26,67%			
Permanent employee	:	0%	>12-18	13,33%			
Temporary employee	:	0%	>18-24	13,33%			
Agricultural labor	:	0%	>24-36	6,67			
Construction labor	:	0%	>36	26,67%			
Pension	:	0%					
	:						
<b>Properties</b>	:						
House and land	:	Self-owned 100% Rent 0%					
Telephone/HP(pcs)	:	1,80					
TV(pcs)	:	0,93					
Car	:	0,20					
Motorcycle	:	0,93					
Bicycle	:	0,00					
Bank savings	:	40%					
Agricultural land	:	47%	Wide 0.5 ha				
Cattle	:	0,47					
Electricity fee (Rp)	:	56,866					

<b>B. Piped water Usage</b>	:				
Piped water fee (Rp)	:	45666,67	Rupiah		
	:	Yes	No	Reasons	
<b>1. Piped water usage</b>	:				
Drinking	:	93%	7%	0%	
Bath, Toilet and wash	:	80%	20%		
Others (such as for for gardens etc.)	:	80%			
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low	
a. Water quantity	:	80%	0%	0%	
b. Water quality	:	80%	0%	0%	
c. Water supply system	:	80%	0%	0%	
d. Water fee	:	0%	80%	0%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:		Wife	Husband & Wife	
	:	87%	7%	0%	
<b>4. Information on existing alternative domestic water source</b>	:		<b>well and river</b>	<b>buy refill water</b>	<b>well and buy refill water</b>
	:	13%	0%	0%	0%
<b>5. Disease</b>	:	Before (2006)		2009 condition	
Kinds of disease	:				
Expenses for cure	:	Before (2006)	0,00		FY 2009
	:				
	:				
<b>C. Information on condition before SPAM IKK</b>	:				
a. Fetched water from other sources	:				
well	:	0%			
river	:	0%			
buy refill water	:	0%			
Others (such as for for gardens etc.)	:	0%			
b. Distance of water source	:	0,00	m		
c. Fetching time	:	0,00		minute/day	
d. Who collected water	:				
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:				



**46. IKK Latambaga, Latambaga Sub-District, Kolaka District -South East Sulawesi Province ( B-38 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	1 June 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15 HHs			
		Male :	Female :		
Level of education :		Husband	Wife		
Primary School	:	21,4%	33,3%		
Junior High school	:	14,3%	26,7%		
Senior High School	:	42,9%	26,7%		
University	:	21,4%	13,3%		
Postgraduate	:	0,0%	0,0%		
Average size of HHs	:	5.93	persons		
Adult (> 12yrs)	:	60	persons	Male 30.3%	Female 37%
Children ( 5- 12 yrs)	:	25	persons	Male 11.2%	Female 16.8%
Children (0- 4 yrs	:	4	persons	4.7%	
<b>Occupation:</b>		<b>Income</b>			
Farmer	:		Million Rp		
Trader	:		< 6	0,0%	
Government employee	:		>6 - 12	33,33%	
Company employee	:		>12-18	6,67%	
Temporary employee	:		>18-24	20,0%	
Agricultural labor	:		>24-36	6,67%	
Construction labor	:		>36	33,3%	
Pension	:				
<b>Properties</b>					
House and land		Self-owned		Rent	
Telephone/HP (pcs)					
TV(pcs)					
Car					
Motorcycle					
Bicycle					
Bank savings					
Agricultural land					
Cattle					
Electricity fee (Rp)					

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:			
		Yes	No	Reasons
<b>1. Piped water usage</b>				
Drinking	:			
Bath, Toilet and wash	:			
Others (such as for for gardens etc.)				
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low
a. Water quantity	:			
b. Water quality	:			
c. Water supply system	:			
d. Water fee	:			
e. Reasons				
<b>3. Who decided to set piped water connection</b>				
	:	Husband	Wife	Husband & Wife
	:			
<b>4. Information on domestic water source existing alternative</b>				
		well	spring	river TubeWell
<b>5. Disease</b>		Before 2006	2009	Notes
Kinds of disease	:	No		
Expenses for cure	:	No		
<b>C. Information SPAM IKK on condition before</b>				
a. Fetched water from other sources	:			
Tubewell ( sumur bor )	:			
river	:			
Others ( Pendatang baru )	:			
b. Distance of water source	:		m	
c. Fetching time	:	Adult Male	hours/day	
d. Who collected water				
Adult Male	:			
Adult Female	:			
Boys	:			
Girls	:			
	:			
Others (tube well with pipe line)	:			

**47. IKK Air Madidi - Kabupaten Minahasa Utara - Provinsi Sulawesi Utara ( B-39 )**

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	11 May 2010			
<b>A. Profile of Customer</b>					
Total Number of respondents	:	15 HHs			
		Male :	53%	Female :	47%
Level of education :		Husband	Wife		
Primary School	:	0,00%	6,7%		
Junior High school	:	13,3%	13,3%		
Senior High School	:	53,3%	66,7%		
University	:	26,7%	6,7%		
Postgraduate	:	6,7%	6,7%		
Average size of HHs	:	4,3	persons		
Adult (> 12yrs)	:	44	persons	Male	32%
				Female	35%
Children ( 5- 12 yrs)	:	12	persons	Male	6%
				Female	12%
Children (0- 4 yrs)	:	9	persons		14%
<b>Occupation:</b>		<b>Income</b>			
Farmer	:	0%	Million Rp		
Trader	:	7%	< 6	6,67%	
Government employee	:	13%	>6 - 12	13,33%	
Company employee	:	40%	>12-18	26,67%	
Temporary employee	:	13%	>18-24	0,00%	
Agricultural labor	:	0%	>24-36	13,33%	
Construction labor	:	20%	>36	40%	
Pension	:	7%			
		100%			
<b>Properties</b>					
House and land		Self-owned 100%	Rent 0 %		
Certificate		Husband 93%	Wife 7%		
Telephone/handphone (pcs)					
TV(pcs)		2.4			
Car		1.5			
Motorcycle		0.2			
Bicycle		0.7			
Bank savings					
Agricultural land		33%			
Cattle					
Electricity fee (Rp)		88.500			

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	32.260		
		Yes	No	Reasons
<b>1. Piped water usage</b>				
Drinking	:	33%	67%	Gallon refill
Bath, Toilet and wash	:	100%	0%	
Others (such as for for gardens etc.)		100%	0%	
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low
a. Water quantity	:	13%	73%	13%
b. Water quality	:	0%	73%	27%
c. Water supply system	:	7%	80%	13%
d. Water fee	:	33%	60%	7%
e. Reasons				
<b>3. Who decided to set piped water connection</b>				
	:	Husband	Wife	Husband & Wife
	:	20%	27%	53%
<b>4. Information on domestic water source existing alternative</b>				
		well	spring	river
			7%	7%
				TubeWell
				67%
<b>5. Disease</b>		Before 2006	2009	Notes
Kinds of disease	:	No	47%	gatal gatal
Expenses for cure	:	No	735,000	
<b>C. Information SPAM IKK on condition before</b>				
a. Fetched water from other sources	:			
Tubewell ( sumur bor )	:	67%		
river	:	13%		
Others ( Pendatang baru )	:	20%		
b. Distance of water source	:	500	m	
c. Fetching time	:	Adult Male	hours/day	30 menit
d. Who collected water				
Adult Male	:	40%		
Adult Female	:	0%		
Boys	:	0%		
Girls	:	0%		
	:	20%		
Others(Sumur bor ada jaringan pipa)	:	40%		

**48. IKK Amurang - Kabupaten Minahasa Selatan - Provinsi Sulawesi utara ( B-40 )**

<b>Result of Social Survey:</b>							
<b>Date of Survey</b>	:	13 May 2010					
<b>A. Profile of Customer</b>							
Total Number of respondents	:	15 HHs					
	:	Male : 33% Female : 67%					
Level of education	:	Husband Wife					
Primary School	:	14,3% 21,4%					
Junior High school	:	57,1% 42,9%					
Senior High School	:	14,3% 21,4%					
University	:	7,1% 14,3%					
Postgraduate	:	7,1% 21,4%					
Average size of HHs	:	4,6 persons					
Adult (> 12yrs)	:	51 persons		Male 39%		Female 34%	
Children (5- 12 yrs)	:	15 persons		Male 13%		Female 9%	
Children (0- 4 yrs)	:	4 persons		6%			
<b>Occupation:</b>			<b>Income</b>				
Farmer ( Fisherman)	:	13,3%	Million Rp				
Trader	:	13,3%	< 6	0%			
Government employee	:	20,0%	>6 - 12	7,14%			
Company employee	:	6,7%	>12-18	7,14%			
Temporary employee (Driver)	:	6,7%	>18-24	0,00%			
Agricultural labor	:	0,0%	>24-36	64,29%			
Construction labor	:	33,3%	>36	21,43%			
Pension	:	6,7%					
		100,0%					
<b>Properties</b>							
House and land	Self-owned 100% Rent 0%						
Certificate	Husband 73% Wife 20% others 7%						
Telp/HP(pcs)	2.1						
TV(pcs)	1.3						
Car	0.4						
Motorcycle	0.3						
Bicycle							
Bank savings	67%						
Agricultural land	33%						
Cattle							
Electricity fee (Rp)	70.000						

<b>B. Piped water Usage</b>				
Piped water fee (Rp)	:	37.000		
	:	Yes	No	Reasons
<b>1. Piped water usage</b>				
Drinking	:	100%	0%	
Bath, Toilet and wash	:	100%	0%	
Others (such as for for gardens etc.)	:	100%	0%	
<b>2. Customer satisfaction on</b>		Good	Average	Bad/low
a. Water quantity	:	27%	73%	0%
b. Water quality	:	7%	87%	7%
c. Water supply system	:	0%	93%	7%
d. Water fee	:	0%	80%	20%
e. Reasons	:			
<b>3. Who decided to set piped water connection</b>				
		Husband	Wife	Husband&Wife
		40%	7%	53%
<b>4. Information on existing alternative domestic water source</b>				
		well	spring	river
		100%	0%	0%
<b>5. Disease</b>		Before	2009	Notes
Kinds of disease	:	No	condition	gatal gatal
Expenses for cure	:	No	50000	
<b>C. Information on condition before SPAM IKK</b>				
a. Fetched water from other sources	:			
well	:	93%		
river	:	0%		
Others ( Pendatang baru )	:	7%		
b. Distance of water source	:	150	m	
c. Fetching time	:	25	Minute/day	
d. Who collected water	:			
Adult Male	:	0%		
Adult Female	:	13%		
Pakai mesin air	:	47%		
	:	7%		
Others( Adult Male & Adult Female)	:	33%		
	:			

#### 49. IKK Suwawa-Bone Bolango District-Gorontalo Province ( B-41 )

<b>Result of Social Survey:</b>					
<b>Date of Survey</b>	:	19 May 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15 HHs			
	:	Male	40%	Female :	60%
Level of education :	:	e : Husband Wife			
Primary School	:	46,7 %	26,7%		
Junior High School	:	46,7 %	73,3%		
Senior High School	:	0,00 %	0,0%		
University	:	6,7 %	0,0%		
Postgraduate	:	0,0 %	0,0%		
Average size of HHs	:	5,1 persons			
Adult ( > 12yrs)	:	53 persons	Male	33%	Female 37%
Children ( 5- 12 yrs)	:	15 persons	Male	8%	Female 12%
Children (0- 4 yrs)	:	9 persons		12%	
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	13%	Million Rp		
Trader	:	13%	< 6	13,33%	
Government employee	:	20%	>6 - 12	6,67%	
Permanent employee	:	20%	>12-18	26,67%	
Temporary employee	:	13%	>18-24	33,33%	
Agricultural labor	:	0%	>24-36	6,67%	
Construction labor	:	7%	>36	13,33%	
Pension	:	7%			
	:				
<b>Properties</b>					
House and land	Self-owned	93%	Rent	7%	
Telephone/Hp(pcs)		1,27			
TV(pcs)		0,80			
Car		0,07			
Motorcycle		0,73			
Bicycle		0,07			
Bank savings		20%			
Agricultural land		53%	wide		
Cattle		0,13			
Electricity fee (Rp)		35850,00	Rupiah		

<b>B. Piped water Usage</b>						
Piped water fee (Rp)	:	0,00	Rupiah			
	:	Yes	No	Reasons		
<b>1. Piped water usage</b>	:					
Drinking	:	47%	53%			
Bath, Toilet and wash	:	80%	20%			
Others (such as for for gardens etc.)	:	93%				
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low		
a. Water quantity	:	80%	20%	0%		
b. Water quality	:	53%	47%	0%		
c. Water supply system	:	53%	47%	0%		
d. Water fee	:	0%	0%	0%		
e. Reasons	:					
<b>3. Who decided to set piped water connection</b>		Husband	Wife	Husband & Wife		
		93%	0%	0%		
<b>4. Information on existing alternative domestic water source</b>		well	buy refill water	river	others	
	:	53%	0%	0%	7%	
<b>5. Disease</b>	:	Before (2006)		2009 condition		Notes
Kinds of disease	:					
Expenses for cure	:	Before (2006)	0,00		FY 2009	0,00
	:					
	:					
<b>C. Information on condition before SPAM IKK</b>	:					
a. Fetched water from other sources	:					
well	:	0%				
river	:	0%				
buy refill water	:					
Others (such as for for gardens etc.)	:	0%				
b. Distance of water source	:	0,00	m			
c. Fetching time	:	0,00		minute/day		
d. Who collected water	:					
Adult Male	:	0%				
Adult Female	:	0%				
Boys	:	0%				
Girls	:	0%				
Others (water pump or adult male and female)	:	0%				



### 50. IKK Kwadang-Gorontalo Utara District-Gorontalo Province ( B-42 )

<b>Result of Social Survey:</b>	:				
<b>Date of Survey</b>	:	18 May 2010			
<b>A. Profile of Customer</b>	:				
Total Number of respondents	:	15	Male :	33%	Female : 67%
Level of education :	:	Husband		Wife	
Primary School	:	54,5%		45,5%	
Junior High School	:	27,3%		45,5%	
Senior High School	:	0,0%		0,0%	
University	:	18,2%		9,1%	
Postgraduate	:	0,0%		0,0%	
	:				
Average size of HHs	:	6,1	persons		
Adult ( > 12yrs)	:	73	persons	Male 33%	Female 48%
Children ( 5- 12 yrs)	:	12	persons	Male 4%	Female 8%
Children (0- 4 yrs)	:	6	persons	7%	
	:				
<b>Occupation:</b>	:		<b>Income</b>		
Farmer	:	20%	Million Rp		
Trader	:	13%	< 6	9,09%	
Government employee	:	7%	>6 - 12	36,6%	
Permanent employee	:	7%	>12-18	9,09%	
Temporary employee	:	7%	>18-24	0,00%	
Agricultural labor	:	0%	>24-36	9,09%	
Construction labor	:	0%	>36	36,36%	
Pension	:	0%			
	:				
<b>Properties</b>	:				
House and land	:	Self-owned 100% rent 0%			
Telephone/Hp (pcs)	:	2,27			
TV(pcs)	:	0,87			
Car	:	0,07			
Motorcycle	:	0,60			
Bicycle	:	0,07			
Bank savings	:	7%			
Agricultural land	:	47%		wide	
Cattle	:	0,33			
Electricity fee (Rp)	:	42933,33	Rupiah		
Piped water fee (Rp)	:	45266,67	Rupiah		

<b>B. Piped water Usage</b>	:				
Piped water fee (Rp)	:	45266,67	Rupiah		
	:	Yes	No	Reasons	
<b>1. Piped water usage</b>	:				
Drinking	:	93%	7%	0%	
Bath, Toilet and wash	:	73%	27%		
Others (such as for for gardens etc.)	:	73%			
<b>2. Customer satisfaction on</b>	:	Good	Average	Bad/low	
a. Water quantity	:	80%	0%	0%	
b. Water quality	:	73%	7%	0%	
c. Water supply system	:	67%	7%	7%	
d. Water fee	:	0%	53%	20%	
e. Reasons	:				
<b>3. Who decided to set piped water connection</b>	:			Husband & Wife	
	:	Husband	Wife	0%	
	:	47%	40%		
<b>4. Information on existing alternative domestic water source</b>	:	<b>well</b>	<b>27%</b>		
<b>5. Disease</b>	:	Before (2006)	2009 condition		Notes
Kinds of disease	:				
Expenses for cure	:	Before (2006)	0,00	FY 2009	0,00
<b>C. Information on condition before SPAM IKK</b>					
:	:				
a. Fetched water from other sources	:				
well	:	0%			
river	:	0%			
buy refill water	:	0%			
Others (such as for for gardens etc.)	:	0%			
b. Distance of water source	:	0,00	m		
c. Fetching time	:	0,00	minute/day		
d. Who collected water	:				
Adult Male	:	0%			
Adult Female	:	0%			
Boys	:	0%			
Girls	:	0%			
Others (water pump or adult male and female)	:	0%			

## APPENDIX 5 SOCIAL BASELINE DATA

A - 1	<i>Sumbul</i>	B - 22	<i>Gemarang</i>
A - 2	<i>Kisaran</i>	B - 23	<i>Burneh</i>
B - 1	<i>Nagari Kota Sani</i>	B - 24	<i>Kepung</i>
B - 2	<i>Sumpahan</i>	B - 25	<i>Selopamioro</i>
B - 5	<i>Tandun</i>	B - 26	<i>Gamping</i>
B - 6	<i>Inuman</i>	A - 5	<i>Jungkat</i>
B - 7	<i>Candi Muaro</i>	A - 6	<i>Sei Bulan</i>
B - 8	<i>Lubuk Ruso</i>	B - 27	<i>Sepaku</i>
B - 3	<i>Sungai Pinang</i>	B - 28	<i>Loa Janan</i>
B - 4	<i>Gelumbang</i>	B - 29	<i>Kertak Hanyar</i>
B - 9	<i>Way Lima</i>	B - 30	<i>Binuang</i>
B - 10	<i>Kotapadang</i>	B - 31	<i>Kareng Pangi</i>
B - 11	<i>Selupu Rejang &amp; Curup Timur</i>	B - 32	<i>Tumbang Talakan</i>
B - 12	<i>Cikande</i>	B - 33	<i>Binanga</i>
B - 13	<i>Garawangi</i>	B - 35	<i>Sabang</i>
B - 14	<i>Luragung</i>	B - 34	<i>Palu</i>
B - 15	<i>Ciwaringin</i>	A - 7	<i>Pattallassang</i>
B - 16	<i>Palasari</i>	B - 37	<i>Galesong Selatan</i>
A - 3	<i>Toroh</i>	A - 8	<i>Pattallassang</i>
B - 18	<i>Gubug</i>	B - 36	<i>Parapa</i>
A - 4	<i>Boja</i>	B - 38	<i>Lakambaga</i>
B - 17	<i>Sawit</i>	B - 39	<i>Air Madidi</i>
B - 19	<i>Sulang</i>	B - 40	<i>Amurang</i>
B - 20	<i>Bancar</i>	B - 41	<i>Suwawa</i>
B - 21	<i>Jenangan</i>	B - 42	<i>Kwandang</i>

**1. IKK\_Tanjung Beringin, Sumbul Sub-District, Dairi District  
North Sumatra Province ( A-1 )**

<b>General Profile</b>							
Province	: North Sumatra						
District	: Dairi						
Sub-District	: Sumbul						
Name of IKK	: Pegagan Julu I						
Name of SPAM-IKK	: Tanjung Beringin						
Distance from Capital of District	: 21 km                      0 hours                      45 minutes						
Distance from Capital of Province	: 156 km                      5 hours                      15 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 268.2						
Total Population	: 41,081                      Male : 20,595                      Female : 20,486						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 8,848						
Average of household size	: 5						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 1 / 5						
Number of Primary/Junior High/ Senior High School	: 36 / 10 / 10						
Number of students of primary, junior and high School	: 6594 / 2587 / 1472						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>1. Kecamatan : Sumbul</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Pegagan Julu V	43.6	994	4,691	2,316	2,375	
2	Pegagan Julu IV	39.6	1,406	6,627	3,327	3,300	
3	Silalahi II	26.02	320	1,355	674	681	
4	Silalahi I	25.5	372	1,641	836	805	
5	Pegagan Julu II	14.26	459	2,221	1,095	1,126	0
6	Pegagan Julu I	3.78	1,135	5,516	2,712	2,804	0
7	Pegagan Julu III	8.1	311	1,372	687	685	0
8	Pegagan Julu IV	26.1	814	3,529	1,843	1,686	
9	Paropo	24.1	372	1,582	782	800	
10	Pegagan Julu VII	22.9	627	3,016	1,454	1,562	
11	Pegagan Julu VIII	5	240	1,092	548	544	
12	Pegagan Julu IX	5.5	456	2,110	1,062	1,048	
13	Pegagan Julu X	6	377	1,708	858	850	
14	Tanjung Beringin	17.74	965	4,621	2,401	2,220	0
	<b>Total</b>	<b>268.2</b>	<b>8,848</b>	<b>41,081</b>	<b>20,595</b>	<b>20,486</b>	<b>0</b>

Source : Sumbul sub-district in figure, 2003

**2. IKK\_Kisaran Timur, Kisaran Timur Sub-District, Asahan District  
North Sumatra Province ( A-2 )**

<b>General Profile</b>							
Province	:	North Sumatra					
District	:	Asahan					
Sub-District	:	Kisaran Timur					
Name of IKK	:	Kisaran Timur					
Name of SPAM-IKK	:	Kisaran Timur					
Distance from Capital of District	:	0 km	0 hours	0 minutes			
Distance from Capital of Province	:	158 km	4 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	39.19					
Total Population	:	68,139	Male :	33,910	Female :	34,229	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	7,765					
Number of Household	:	14,489					
Average of household size	:	5					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	11					
Number of Primary/Junior High/ Senior High School	:	n/a					
Number of students of primary, junior and high School	:	n/a					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>2. Kecamatan : Kisaran Timur</b>							
No.	Name of Village	Area	Number of	Total	Male	Female	House
1	Sentang	4.41	1,766	8,138	4,129	4,009	1,358
2	Kedai Ledang	3.1	859	3,832	2,039	1,793	
3	Kisaran Naga	2.19	1,137	5,809	2,619	3,190	
4	Teladan	0.7	1,371	6,791	3,590	3,201	
5	Kisaran Timur	0.51	695	3,226	1,766	1,460	
6	Selawan	2.78	1,390	6,759	3,327	3,432	
7	Mutiara	2	1,354	6,602	2,785	3,817	
8	Siambul Baru	2.7	775	3,424	1,724	1,700	
9	Siambut-umbut	2.9	967	4,470	2,112	2,358	
10	Karang Anyer	5.97	904	4,114	2,144	1,970	
11	Gambar Baru	5.97	1,173	5,669	2,632	3,037	
12	Lestari	5.96	2,098	9,305	5,043	4,262	
	<b>Total</b>	<b>39.19</b>	<b>14,489</b>	<b>68,139</b>	<b>33,910</b>	<b>34,229</b>	<b>1358</b>

Source : Kisaran Timur sub-district in figure, 2009

**3. IKK\_Nagari Kota Sani, X Koto Singkarak Sub-District, Solok District  
West Sumatra Province ( B-1 )**

<b>General Profile</b>								
Province	: West Sumatra							
District	: Solok							
Sub-District	: X Koto Singkarak							
Name of IKK	: Singkarak							
Name of SPAM-IKK	: Nagari Kota Sani							
Distance from Capital of District	: 42 km                      1 hours                      15 minutes							
Distance from Capital of Province	: 37 km                      1 hours                      0 minutes							
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	: 295.5							
Total Population	: 34,030                      Male : 16,032                      Female : 17,998							
Population in labor force	: n/a							
Population of children under 5 years-old	: n/a							
Number of Household	: 7,122							
Average of household size	: 4							
Average monthly income of household unemployed	: n/a							
Number of health post/support health post/ village health post	: 6 / 0 / 16							
Number of Primary/Junior High/ Senior High School	: 36 / 12 / 5							
Number of students of primary, junior and high School	: 4782 / 1350 / 1032							
Primary industries	: n/a							
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>3. Kecamatan : X Koto Singkarak</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Singkarak	11.35	1,170	4,236	1,996	2,240	0	IKK
2	Sumani	14.18	1,164	5,777	2,712	3,065	0	
3	Saning Bakar	91.72	1,175	5,838	2,629	3,209	0	
4	Koto Sani	70	1,459	7,498	3,570	3,928	0	
5	Aripan	37.45	775	3,839	1,887	1,952		
6	Tikalak	10.8	331	1,641	806	835		
7	Kacang	30	658	3,264	1,536	1,728		
8	Tanjung Alai	30	390	1,937	896	1,041		
Total		295.5	7,122	34,030	16,032	17,998	0	

Source : X Koto Singkarak sub-district in figure, 2008/2009

**4. IKK\_ Sumpahan, Barangin Sub-District, Sawahlunto City  
West Sumatra Province ( B-2 )**

<b>General Profile</b>								
Province	:	West Sumatra						
District	:	Sawahlunto City						
Sub-District	:	Barangin						
Name of IKK	:	Santur						
Name of SPAM-IKK	:	Sumpahan						
Distance from Capital of District	:	2.5 km	0 hours	5 minutes				
Distance from Capital of Province	:	94 km	2 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	88.55						
Total Population	:	16,158	Male :	7,942	Female : 8,216			
Population in labor force	:	11,409						
Population of children under 5 years-old	:	1,712						
Number of Household	:	3,232						
Average of household size	:	4						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	11 health post						
Number of Primary/Junior High/ Senior High School	:	17 / 4 / 2 / 1						
Number of students of primary, junior and high School	:	1914 / 977 / 643 / 96						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>4. Kecamatan : Barangin</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Lumindai	20.1	443	2,215	1,078	1,137		
2	Balai Batu	12.95	140	698	331	367		
3	Saringan	0.81	290	1,451	726	725		
4	Lubang Panjang	1	315	1,576	745	831	95	
5	Durian I	1.17	396	1,981	959	1,022	563	
6	Durian II	1.25	406	2,031	994	1,037	402	
7	Talago Gunung	17.3	287	1,435	715	720	132	
8	Santur	8.69	545	2,724	1,424	1,300		IKK
9	Kolok Mudiak	8.52	185	925	436	489		
10	Kolok Nan Tuo	16.76	224	1,122	534	588		
Total		88.55	3,231	16,158	7,942	8,216	1,192	

Source : Barangin sub-district in figure, 2008/2009

**5. IKK\_Tandun, Tandun Sub District, Rokan Hulu District  
Riau Province ( B-5 )**

<b>General Profile</b>							
Province	: Riau						
District	: Rokan Hulu						
Sub-District	: Tandun						
Name of IKK	: Desa Tandun						
Name of SPAM-IKK	: Tandun						
Distance from Capital of District	: 60 km                      1 hours                      20 minutes						
Distance from Capital of Province	: 200 km                      4 hours                      0 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 639						
Total Population	: 22,837                      Male : 11,979                      Female : 10,858						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 5,388						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 1 health post / 14 village health post						
Number of Primary/Junior High/ Senior High School	: 18 / 5 / 3						
Number of students of primary, junior and high School	: 2315 / 1158 / 950						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>5. Kecamatan : Tandun</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Tandun	374.66	1,741	7,519	3,799	3,720	292
2	Kumain	26.12	558	2,458	1,361	1,097	
3	Bono Tapung	19.65	1,015	4,455	2,440	2,015	
4	Dayo	29.87	818	3,625	1,924	1,701	
5	Tapung Jaya	41.28	639	2,539	1,328	1,211	
6	Puo Raya	49.54	446	1,807	908	899	
7	Sungai Kuning	97.88	171	434	219	215	
	<b>Total</b>	<b>639</b>	<b>5,388</b>	<b>22,837</b>	<b>11,979</b>	<b>10,858</b>	<b>292</b>

Source : Tandun sub-district in figure, 2006



**6. IKK\_Inuman, Inuman Sub-District, Kuantan Singingi District  
Riau Province ( B-6 )**

<b>General Profile</b>								
Province	:	Riau						
District	:	Kuantan Sengingi						
Sub-District	:	Inuman						
Name of IKK	:	Koto Inuman						
Name of SPAM-IKK	:	Inuman						
Distance from Capital of District	:	60 km	1 hours	30 minutes				
Distance from Capital of Province	:	254 km	4 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	45.00						
Total Population	:	15,714	Male :	7,810	Female :	7,904		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	n/a						
Number of Household	:	3,707						
Average of household size	:	11						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	5 health post						
Number of Primary/Junior High/ Senior High School	:	14 / 4 / 1						
Number of students of primary, junior and high School	:	1106 / 240 / 310						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>6. Kecamatan : Inuman</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Pulau Panjang Hulu	45	519	1,079	571	508		
2	Pulau Panjang Hilir	55,00	478	1,998	1,024	974		
3	Bedeng Sikuran	45,00	251	989	512	477		
4	Banjar Nan Tigo	56,00	221	1,152	643	509		
5	Pasar Inuman	21,01	329	2,014	773	1,241	189	
6	Pulau Sipan	40,00	314	1,611	788	823		
7	Pulau Busuk	22,00	349	1,245	605	640		
8	Koto Inuman	24,00	423	2,149	1,127	1,022	92	IKK
9	Sigaruntang	60,00	333	1,213	614	599		
10	Pulau Busuk	38,00	256	1,174	584	590		
11	Seberang Pulau Busuk	47,00	234	1,090	569	521		
Total		45.00	3,707	15,714	7,810	7,904	281	

Source : Inuman sub-district in figure, 2006

**7. IKK\_Candi Muaro, Maro Sebo Sub-District, Muaro Jambi District  
Jambi Province ( B-7 )**

<b>General Profile</b>											
Province	:	Jambi									
District	:	Muaro Jambi									
Sub-District	:	Maro Sebo									
Name of IKK	:	Jambi Kecil									
Name of SPAM-IKK	:	Candi Muaro									
Distance from Capital of District	:	20 km	0 hours			30 minutes					
Distance from Capital of Province	:	25 km	0 hours			30 minutes					
<b>Profile of Kecamatan:</b>											
Area (km <sup>2</sup> )	:	29,031									
Total Population	:	30,202	Male :	15,121	Female :	15,081					
Population in labor force	:	n/a									
Population of children under 5 years-old	:	n/a									
Number of Household	:	6,725									
Average of household size	:	4									
Average monthly income of household unemployed	:	n/a									
Number of health post/support health post/ village health post	:	12									
Number of Primary/Junior High/ Senior High School	:	4 / 6 / 2									
Number of students of primary, junior and high School	:	4076 / 943 / 397									
Primary industries	:	8									
<b>Piped water supply service in IKK :</b>											
Status of SPAM-IKK:											
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others											
<b>7. Kecamatan : Maro Sebo</b>											
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection				
1	Muaro Jambi	2,288	}	}	}	}	17,217				
2	Jambi Kecil	2,310									
3	Jambi Tulo	1,253									
4	Baru	603									
5	Danau Lamo	1,100									
6	Kemingking luar	598									
7	Tanjung Katung	3,861									
8	Setiris	2,493									
9	Mudung Darat	1,612									
10	Danau Kedap	784									
11	Bakung	892						6,725	30,202	15,121	15,081
12	Niaso	827									
13	Talang Duku	2,798									
14	Kunangan	1,219									
15	Tabat Patah	780									
16	Kemingking Dalam	2,769									
17	Teluk Jambu	671									
18	Mudo	718									
19	Sekumbang	362									
20	Lubuk Raman	1,093									
	<b>Total</b>	<b>29,031</b>	<b>6,725</b>	<b>30,202</b>	<b>15,121</b>	<b>15,081</b>	<b>17,217</b>				

Source : Maro Sebo sub-district in figure, 2008

**8. IKK\_Lubuk Ruso, Pemoyang Sub-District, Batang Hari District  
Jambi Province ( B-8 )**

<b>General Profile</b>							
Province	:	Jambi					
District	:	Batang Hari					
Sub-District	:	Pemayung					
Name of IKK	:	Jembatan Mas					
Name of SPAM-IKK	:	Lubuk Ruso					
Distance from Capital of District	:	38 km	0 hours	45 minutes			
Distance from Capital of Province	:	63 km	0 hours	75 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	957.50					
Total Population	:	28,362	Male :	14,411	Female :	13,951	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	2,764					
Number of Household	:	5,673					
Average of household size	:	5					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	6 village health post					
Number of Primary/Junior High/ Senior High School	:	53 / 6 / 3					
Number of students of primary, junior and high School	:	3743 / 1303 / 496					
Primary industries	:	1					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>8. Kecamatan : Pemayung</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHS	Total Population	Male	Female	House Connection
1	Tebing Tinggi	69	482	2,409	1,225	1,184	
2	Sp. Kubu Kandang	18	151	755	380	375	
3	Kubu Kandang	31	88	440	217	223	
4	Kuap	147	240	1,202	622	580	
5	Senaning	77	163	813	404	409	
6	Jembatan Mas	44	568	2,840	1,483	1,357	IKK
7	Awing	22	210	1,051	558	493	
8	Serasah	36	201	1,003	496	507	
9	Pulau Betung	18	357	1,785	918	867	
10	Ture	21	470	2,349	1,193	1,156	
11	Lubuk Ruso	382	659	3,294	1,628	1,666	73
12	Olak Rambahan	9	173	864	428	436	
13	Lopal Aur	21	389	1,946	983	963	
14	Selat	8	527	2,636	1,318	1,318	
15	Teluk	11	511	2,555	1,297	1,258	
16	Pulau Raman	26	269	1,345	671	674	
17	Kaos	17	215	1,075	590	485	
18	Teluk Ketapang	0	0	0	0	0	
	<b>Total</b>	<b>957.50</b>	<b>5,673</b>	<b>28,362</b>	<b>14,411</b>	<b>13,951</b>	<b>73</b>

Source : Pemayung sub-district in figure, 2008

**9. IKK\_Tanjung Kerang, Rambutan Sub-District, Banyuasin District  
South Sumatra Province ( B-3 )**

<b>General Profile</b>			
Province	:	South Sumatra	
District	:	Bantuasin	
Sub-District	:	Rambutan	
Name of IKK	:	Rambutan	
Name of SPAM-IKK	:	Tanjung Kerang	
Distance from Capital of District	:	85 km	2 hours 30 minutes
Distance from Capital of Province	:	90 km	2 hours 10 minutes

**Profile of Kecamatan:**

Area (km <sup>2</sup> )	:	625.55		
Total Population	:	42,037	Male : 20,867	Female : 21,170
Population in labor force	:	n/a		
Population of children under 5 years-old	:	n/a		
Number of Household	:	10,680		
Average of household size	:	4		
Average monthly income of household unemployed	:	n/a		
Number of health post/support health post/ village health post	:	6 health post and 16 village health post		
Number of Primary/Junior High/ Senior High School	:	25 / 5 / 2		
Number of students of primary, junior and high School	:	4518 / 1280 / 342		
Primary industries	:	n/a		

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**9. Kecamatan : Rambutan**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Rambutan						56
2	Tanjung Kerang						35
3	Durian Gadis						1
4	Suka Pindah						12
5	Pelaju						1
6	Tanah Lembak						1
7	Kebon Sahang						
8	Pulau Parang						
9	Siju						
10	Parit						
11	Tanjung Merbau	625.55	10,680	42,037	20,867	21,170	
12	Gelebak Dalam						
13	Sako						
14	Pangkalan Gelebak						
15	Sungai Pinang						
16	Sungai Kedukan						
17	Sungai Dua						
18	Menten						
19	Desa Baru						
20	Sebokor						
	<b>Total</b>	<b>625.55</b>	<b>10,680</b>	<b>42,037</b>	<b>20,867</b>	<b>21,170</b>	<b>106</b>

Source : Banyuasin district in figure, 2008/2009

**10a. IKK\_Sungai Rotan-Gelumbang-Kelekar, Sungai Rotan Sub-District  
South Sumatra Province ( B-4 )**

<b>General Profile</b>								
Province	:	South Sumatra						
District	:	Muara Enim						
Sub-District	:	Sungai Rotan						
Name of IKK	:	Sukarami						
Name of SPAM-IKK	:	Sungai Rotan - Gelumbang - Kelekar						
Distance from Capital of District	:	150 km	3 hours	30 minutes				
Distance from Capital of Province	:	196 km	4 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	473.78						
Total Population	:	30,757	Male :	15,222	Female :	15,535		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	n/a						
Number of Household	:	6,151						
Average of household size	:	5						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	1 health post						
Number of Primary/Junior High/ Senior High School	:	25 / 4 / 2						
Number of students of primary, junior and high School	:	4567 / 1355 / 493						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>10a. Kecamatan : Sungai Rotan</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Modong	12	416	2,078	1,023	1,055		
2	Tanjung Miring	28	236	1,182	526	656		
3	Suka Cinta	6	392	1,962	963	999		
4	Panandingan	42	367	1,837	853	984		
5	Danau Rata	22	684	3,419	1,701	1,718	21	
6	Suka Maju	12	261	1,305	639	666		
7	Sukarami	48	432	2,160	1,130	1,030	69	IKK
8	Suka Jadi	35	293	1,466	690	776		
9	Suka Dana	38	207	1,035	524	511		
10	Petar Dalam	14	300	1,500	740	760		
11	Paya Angus	12	221	1,104	533	571		
12	Danau Tampang	23	219	1,095	585	510		
13	Kasai	38	367	1,833	899	934		
14	Sungai Rotan	30	372	1,859	937	922		
15	Suka Merindu	19	487	2,434	1,251	1,183		
16	Suka Mariga	24	302	1,512	761	751		
17	Muara Lematang	43	265	1,324	650	674		
18	Danau Baru	13	127	635	310	325		
19	Petar Luar	14	203	1,017	507	510		
Total		473.78	6,151	30,757	15,222	15,535	90	

Source : Sungai Rotan sub-district in figure, 2008/2009

**10b. IKK\_Sungai Rotan-Gelumbang-Kelekar, Sungai Rotan Sub-District  
Muara Enim District, South Sumatra Province ( B-4 )**

<b>General Profile</b>	
Province	: South Sumatra
District	: Muara Enim
Sub-District	: Gelumbang
Name of IKK	: Gelumbang
Name of SPAM-IKK	: Sungai Rotan - Gelumbang - Kelekar
Distance from Capital of District	: 132 km            2 hours            30 minutes
Distance from Capital of Province	: 196 km            4 hours            30 minutes
<b>Profile of Kecamatan:</b>	
Area (km <sup>2</sup> )	: 489.73
Total Population	: 42,463            Male : 20,218            Female : 22,245
Population in labor force	: n/a
Population of children under 5 years-old	: n/a
Number of Household	: 8,493
Average of household size	: 4
Average monthly income of household unemployed	: n/a
Number of health post/support health post/ village health post	: 6 health post and 21 village health post
Number of Primary/Junior High/ Senior High School	: 28 / 6 / 2
Number of students of primary, junior and high School	: 6351 / 1653 / 765
Primary industries	: n/a
<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others	

**10b. Kecamatan : Gelumbang**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Karang Endah Selatan	8	696	3,480	1,196	2,284	
2	Karang Endah Selatan	6	817	4,087	2,013	2,074	
3	Tambangan Kelekar	33	421	2,103	1,035	1,068	
4	Sigam	37	443	2,215	1,140	1,075	
5	Midar	13	277	1,387	643	744	
6	Jambu	14	243	1,214	539	675	
7	Gaung Telang	38	217	1,085	539	546	
8	Melilian	36	249	1,246	386	860	
9	Pedataran	25	236	1,180	552	628	
10	Sebau	13	499	2,496	1,354	1,142	
11	Payabakal	12	212	1,060	545	515	
12	Gelumbang	25	950	4,749	2,416	2,333	
13	Talang Taling	35	511	2,555	1,327	1,228	
14	Pinang Banjar	25	190	950	481	469	
15	Segayang	27	519	2,597	1,287	1,310	
16	Putak	12	306	1,529	724	805	
17	Suka Menang	25	303	1,513	541	972	
18	Bitis	25	247	1,234	600	634	
19	Gumai	14	386	1,928	947	981	
20	Suka Jaya	30	164	821	412	409	
21	Karta Mulia	17	206	1,030	526	504	
22	Teluk Limau	13	259	1,294	679	615	
23	Betung	9	142	710	336	374	
	<b>Total</b>	<b>489.73</b>	<b>8,493</b>	<b>42,463</b>	<b>20,218</b>	<b>22,245</b>	<b>0</b>

Source : Gelumbang sub-district in figure, 2008/2009

**10c. IKK\_Sungai Rotan-Gelumbang-Kelekar, Sungai Rotan Sub-District  
Muara Enim District, South Sumatra Province ( B-4 )**

<b>General Profile</b>							
Province	: South Sumatra						
District	: Muara Enim						
Sub-District	: Kelekar						
Name of IKK	: Menanti						
Name of SPAM-IKK	: Sungai Rotan - Gelumbang - Kelekar						
Distance from Capital of District	: 153 km            4 hours            15 minutes						
Distance from Capital of Province	: 196 km            4 hours            30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 151.01						
Total Population	: 8,788            Male : 4,452            Female : 4,336						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 1,757						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 1 health post and 6 village health post						
Number of Primary/Junior High/ Senior High School	: 41 / 4 / 3						
Number of students of primary, junior and high School	: 6351 / 1653 / 765						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>10c. Kecamatan : Kelekar</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Embacang	24.66	287	1,435	729	706	
2	Teluk Jaya	20.74	241	1,207	603	604	
3	Menanti	36.12	420	2,102	1,129	973	IKK
4	Suban Baru	19.66	229	1,144	570	574	
5	Palempang	24.11	281	1,403	675	728	
6	Tanjung Medang	20.45	238	1,190	600	590	
7	Menanti Selatan	5.27	61	307	146	161	
Total		151.01	1,757	8,788	4,452	4,336	0

Source : Kelekar sub-district in figure, 2008/2009

**11. IKK\_Way Lima, Way Lima Sub District, Pesawaran District  
Lampung Province ( B-9 )**

<b>General Profile</b>							
Province	:	Lampung					
District	:	Pesawaran					
Sub-District	:	Way Lima					
Name of IKK	:	Batu Raja					
Name of SPAM-IKK	:	Way Lima					
Distance from Capital of District	:	6 km	0 hours	10 minutes			
Distance from Capital of Province	:	30 km	0 hours	45 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	224.50					
Total Population	:	33,835	Male :	17,483	Female :	16,352	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	3,552					
Number of Household	:	8,221					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	6					
Number of Primary/Junior High/ Senior High School	:	35 / 6 / 1					
Number of students of primary, junior and high School	:	n/a					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>11. Kecamatan : Way Lima</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Gununrejo	6.25	516	2,127	1,137	990	
2	Cimanuk	7.90	525	1,334	755	579	
3	Sukamandi	8.96	350	2,466	1,175	1,291	
4	Way Harong	10.23	999	3,420	1,637	1,783	
5	Margodadi	27.00	521	2,433	1,157	1,276	
6	Tanjung Agung	61.80	461	2,549	1,542	1,007	22
7	Kota Dalam	5.42	660	1,687	862	825	
8	Baturaja	16.00	382	2,371	1,096	1,275	IKK
9	Sindang Garut	21.65	565	1,959	1,114	845	
10	Sidodadi	6.17	793	2,624	1,353	1,271	
11	Gedung Dalam	5.24	281	1,091	604	487	
12	Pekondoh	8.28	518	2,023	786	1,237	24
13	Pekondoh Gedung	4.43	286	1,263	640	623	
14	Banjar Negeri	23.75	570	3,134	1,821	1,313	156
15	Padang Manis	4.92	363	1,278	738	540	
16	Paguyuban	6.50	431	2,076	1,066	1,010	
	<b>Total</b>	<b>224.50</b>	<b>8,221</b>	<b>33,835</b>	<b>17,483</b>	<b>16,352</b>	<b>202</b>

Source : Way Lima sub-district in figure, 2008/2009



**12. IKK\_Kota Padang, Kota Padang Sub District, Rejang Lebong District  
Bengkulu Province ( B-10 )**

<b>General Profile</b>							
Province	: Bengkulu						
District	: Rejang Lebong						
Sub-District	: Kota Padang						
Name of IKK	: Kota Padang						
Name of SPAM-IKK	: Kota Padang						
Distance from Capital of District	: 74 km            1 hours            30 minutes						
Distance from Capital of Province	: 157 km           3 hours            30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 172.29						
Total Population	: 10,913            Male : 5,496       Female : 5,417						
Population in labor force	: 2,500						
Population of children under 5 years-old	: 609						
Number of Household	: 10,680						
Average of household size	: 4						
Average monthly income of household unemployed	: 84,000						
Number of health post/support health post/ village health post	: n/a						
Number of health post/support health post/ village health post	: 8 village health post						
Number of Primary/Junior High/ Senior High School	: 10 / 2 / 1						
Number of students of primary, junior and high School	: 1630 / 311 / 396						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>12. Kecamatan : Kota Padang</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kel. Kota Padang						
2	Kel. Bedeng SS						
3	Kel. Dusun Baru						
4	Desa Durian Mas						
5	Desa Lubuk Mumpo	172.29	10,680	10,913	5,496	5,417	
6	Desa Suka Rami						
7	Desa Derati						
8	Desa Taba Anyar						
Total		172.29	10,680	10,913	5,496	5,417	0

Source : Rejang Lebong district in figure, 2009

**13a. IKK\_Selupu Rejang, Curup Sub-District, Rejang Lebong District  
Bengkulu Province ( B-11 )**

<b>General Profile</b>			
Province	:	Bengkulu	
District	:	Rejang Lebong	
Sub-District	:	Curup	
Name of IKK	:	Pasar Tengah	
Name of SPAM-IKK	:	Selupu Rejang	
Distance from Capital of District	:	6 km	0 hours 30 minutes
Distance from Capital of Province	:	85 km	2 hours 30 minutes
<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	3.96	
Total Population	:	30,854	Male : 15,538 Female : 15,316
Population in labor force	:	n/a	
Population of children under 5 years-old	:	3,517	
Number of Household	:	7,170	
Average of household size	:	4	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	8 village health post	
Number of Primary/Junior High/ Senior High School	:	10 / 2 / 1	
Number of students of primary, junior and high School	:	1630 / 311 / 396	
Primary industries	:	n/a	
<b>Piped water supply service in IKK :</b>			
Status of SPAM-IKK:			
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others			

**13a. Kecamatan : Curup**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kelurahan Air Rambai						1,551
2	Kelurahan Adirejo						
3	Kelurahan AP Lama						
4	Kelurahan Dwi Tunggal						
5	Kelurahan Jalan Baru						
6	Kelurahan Pasar Baru	3.96	7,170	30,854	15,538	15,316	
7	Kelurahan Pasar						
8	Kelurahan Talang Benih						
9	Kelurahan Timbul Rejo						
10	Kelurahan Pelabuhan						
	<b>Total</b>	<b>3.96</b>	<b>7,170</b>	<b>30,854</b>	<b>15,538</b>	<b>15,316</b>	<b>1,551</b>

Source : Rejang Lebong district in figure, 2009

Note : Total house connection = 1551 including Curup Timur sub-district

**13 b. IKK\_Selupu Rejang, Curup Timur Sub-District, Rejang Lebong District  
Bengkulu Province ( B-11 )**

<b>General Profile</b>			
Province	:	Bengkulu	
District	:	Rejang Lebong	
Sub-District	:	Curup Timur	
Name of IKK	:	Talang Ulu	
Name of SPAM-IKK	:	Selupu Rejang	
Distance from Capital of District	:	6 km	0 hours 30 minutes
Distance from Capital of Province	:	85 km	2 hours 30 minutes
<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	2.90	
Total Population	:	19,791	Male : 9,967 Female : 9,824
Population in labor force	:	n/a	
Population of children under 5 years-old	:	1,620	
Number of Household	:	4,376	
Average of household size	:	5	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	6 village health post	
Number of Primary/Junior High/ Senior High School	:	8 / 2 / 1	
Number of students of primary, junior and high School	:	1332 / 832 / 462	
Primary industries	:	n/a	
<b>Piped water supply service in IKK :</b>			
Status of SPAM-IKK:			
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others			

13a. Kecamatan : Curup							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kelurahan Sukaraja	1.25	4,376	19,791	9,967	9,824	1,551
2	Kelurahan Kesambe	0.05					
3	Kelurahan Karang	0.05					
4	Kelurahan Talang Ulu	0.04					
5	Desa Air Meles Bawah	N/A					
6	Desa Duku Ulu	0.81	4,376	19,791	9,967	9,824	1,551
7	Desa Duku Ilir	0.60					
8	Desa Kesambe Lama	0.06					
9	Desa Kampung Delima	0.04					
Total		2.90	4,376	19,791	9,967	9,824	1,551

Source : Rejang Lebong district in figure, 2009

Note : Total house connection = 1551 including Curup Timur sub-district  
N/A = data is not available

**14a. IKK\_Cikande,Cikande sub District, Serang District  
Banten Province ( B-12 )**

<b>General Profile</b>							
Province	:	Banten					
District	:	Serang					
Sub-District	:	Cikande					
Name of IKK	:	Cikande					
Name of SPAM-IKK	:	Cikande					
Distance from Capital of District	:	20 km	0 hours	30 minutes			
Distance from Capital of Province	:	0 km	0 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	45.96					
Total Population	:	81,591	Male :	42,556	Female :	39,035	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	7,520					
Number of Household	:	16,318					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 village health post					
Number of Primary/Junior High/ Senior High School	:	34 / 8 / 5					
Number of students of primary, junior and high School	:	9892 / 3344 / 1640					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>14a. Kecamatan : Cikande</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Nambo Udik	4.61	997	4,986	2,713	2,273	
2	Situterate	3.22	3,459	17,295	9,368	7,927	
3	Cikande	5.53	2,547	12,736	6,099	6,637	IKK
4	Leuwilimus	4.13	1,123	5,615	2,939	2,676	
5	Parigi	5.96	1,554	7,772	4,068	3,704	
6	Songgom Jaya	2.87	755	3,774	1,975	1,799	
7	Koper	3.91	1,183	5,915	3,096	2,819	
8	Kamurang	2.44	824	4,118	2,155	1,963	
9	Bakung	3.22	1,066	5,332	2,791	2,541	
10	Gembor Udik	4.13	838	4,191	2,193	1,998	100
11	Julang	2.68	1,157	5,787	3,029	2,758	395
12	Sukatani	3.26	814	4,070	2,130	1,940	
Total		45.96	16,317	81,591	42,556	39,035	495

Source : Cikande sub-district in figure, 2009

**14 b. IKK\_Cikande, Kibin sub District, Serang District  
Banten Province ( B-12 )**

<b>General Profile</b>							
Province	:	Banten					
District	:	Serang					
Sub-District	:	Kibin					
Name of IKK	:	Kibin					
Name of SPAM-IKK	:	Cikande					
Distance from Capital of District	:	20 km	0 hours	30 minutes			
Distance from Capital of Province	:	0 km	0 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	37					
Total Population	:	53,856	Male :	29,066	Female :	24,790	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	4,975					
Number of Household	:	10,771					
Average of household size	:	3					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 village health post					
Number of Primary/Junior High/ Senior High School	:	20 / 4 / 2					
Number of students of primary, junior and high School	:	5496 / 1791 / 1666					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>14b. Kecamatan : Kibin</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Nagara	6.24	1,061	5,303	2,862	2,441	
2	Cijeruk	3.23	1,076	5,379	2,903	2,476	221
3	Barengkok	6.69	1,160	5,799	3,130	2,669	
4	Nambo Lir	7.27	1,938	9,689	5,229	4,460	700
5	Kibin	4.40	1,512	7,561	4,081	3,480	705
6	Tambak	2.09	1,062	5,310	2,866	2,444	750
7	Ciagen	1.10	1,095	5,477	2,956	2,521	326
8	Ketos	3.30	894	4,470	2,412	2,058	
9	Sukamaju	2.46	974	4,868	2,627	2,241	
	<b>Total</b>	<b>36.78</b>	<b>10,772</b>	<b>53,856</b>	<b>29,066</b>	<b>24,790</b>	<b>2,702</b>

Source : Kibin sub-district in figure, 2003

**15a. IKK\_Garawangi, Garawangi Sub-District, Kuningan District  
West Java Province ( B-13 )**

<b>General Profile</b>								
Province	:	West Java						
District	:	Kuningan						
Sub-District	:	Garawangi						
Name of IKK	:	Garawangi						
Name of SPAM-IKK	:	Garawangi						
Distance from Capital of District	:	15 km	0 hours	30 minutes				
Distance from Capital of Province	:	100 km	4 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	28.24						
Total Population	:	39,425	Male :	19,405	Female :	20,020		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	4,126						
Number of Household	:	9,361						
Average of household size	:	4						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	3 village health post						
Number of Primary/Junior High/ Senior High School	:	24 / 2 / 1						
Number of students of primary, junior and high School	:	4263 / 1334 / 345						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system								
<input type="checkbox"/> b. Connected to available system in Kecamatan								
<input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten								
<input type="checkbox"/> d. Others								
<b>15a. Kecamatan : Garawangi</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Cirukem	3.47	688	4,126	2,062	2,064		
2	Gewok	3.37	707	4,412	2,142	2,270		
3	Kutakembaran	1.93	563	3,663	1,849	1,814		
4	Pakerubangan	2.88	539	3,581	1,746	1,835		
5	Kadatuan	2.45	451	3,182	1,554	1,628		
6	Tembong	1.85	310	2,541	929	1,612		
7	Lengkong	2.58	1,287	3,628	1,693	1,935		
8	Purwasari	2.24	1,256	3,069	1,820	1,249	79	
9	Garawangi	2.33	873	2,258	894	1,364	154	IKK
10	Karamatwangi	0.95	521	3,056	1,680	1,376	41	
11	Sukaimut	0.75	203	1,825	1,122	703		
12	Cikananga	0.60	287	1,200	435	765		
13	Tambakbaya	0.73	208	1,230	524	706	42	
14	Mekarmulya	0.38	352	784	497	287	26	
15	Sukamulya	0.61	456	361	204	157	48	
16	Mancagar	0.37	317	509	254	255	10	
17	Citiusari	0.75	343	0	0	0		
Total		28.24	9,361	39,425	19,405	20,020	400	

Source : Garawangi sub-district in figure, 2009

**15b. IKK\_Garawangi, Maleber Sub-District, Kuningan District  
West Java Province ( B-13 )**

<b>General Profile</b>							
Province	:	West Java					
District	:	Kuningan					
Sub-District	:	Maleber					
Name of IKK	:	Maleber					
Name of SPAM-IKK	:	Garawangi					
Distance from Capital of District	:	15 km	0 hours	30 minutes			
Distance from Capital of Province	:	100 km	4 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	56.01					
Total Population	:	43,608	Male :	21,078	Female :	22,530	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	12,302					
Average of household size	:	3.72					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 village health post					
Number of Primary/Junior High/ Senior High School	:	22 / 3 / 1					
Number of students of primary, junior and high School	:	3709 / 1038 / 312					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>15b. Kecamatan : Maleber</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Ciporang		599				266
2	Desa Mandalajaya		699				30
3	Desa Kutaraja		820				13
4	Desa Maleber		983				18
5	Desa Garahaji		213				
6	Desa Galaherang		1,096				
7	Desa Cipakem		1,888				
8	Desa Parakan	56.01	793	43,608	21,078	22,530	
9	Desa Dukuh tengah		418				
10	Desa Karang tengah		350				
11	Desa Mekarsari		1,507				
12	Desa Padamulya		844				
13	Desa Cikahuripan		1,107				
14	Desa Kutamandrajaya		282				
15	Desa Giriwaringin		455				
16	Desa Buniasih		248				
	<b>Total</b>	<b>56.01</b>	<b>12,302</b>	<b>43,608</b>	<b>21,078</b>	<b>22,530</b>	<b>327</b>

Source :

**15c. IKK\_Garawangi, Sindang Agung Sub-District, Kuningan District  
West Java Province ( B-13 )**

<b>General Profile</b>			
Province	:	West Java	
District	:	Kuningan	
Sub-District	:	Sindang Agung	
Name of IKK	:	Sindang Agung	
Name of SPAM-IKK	:	Garawangi	
Distance from Capital of District	:	15 km	0 hours 30 minutes
Distance from Capital of Province	:	100 km	4 hours 30 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	12.43	
Total Population	:	34,093	Male : 16,749 Female : 17,344
Population in labor force	:	n/a	
Population of children under 5 years-old	:	n/a	
Number of Household	:	9,177	
Average of household size	:	4	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	2 village health post	
Number of Primary/Junior High/ Senior High School	:	18 / 1 / 0	
Number of students of primary, junior and high School	:	3677 / 881 / 0	
Primary industries	:	n/a	

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**15c. Kecamatan : Sindang Agung**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Sindangsari	12.43	773	34,093	16,749	17,344	33
2	Desa Kaduagung		575				27
3	Desa Kertawangunan		935				24
4	Desa Kertaungaran		838				73
5	Desa Sindang Agung		1,173				130
6	Desa Balong		632				18
7	Desa Kertayasa		733				
8	Desa Babakanreuma		883				
9	Desa Tirtawangunan		452				
10	Desa Dukuhlor		500				
11	Desa Taraja		895				
12	Desa Mekarmukti		603				
Total		12.43	8,992	34,093	16,749	17,344	305

Source :



**16a. IKK\_Luragung, Luragung Sub-District, Kuningan District  
West Java Province ( B-14 )**

<b>General Profile</b>							
Province	: West Java						
District	: Kuningan						
Sub-District	: Luragung						
Name of IKK	: Luragung Landeuh						
Name of SPAM-IKK	: Luragung						
Distance from Capital of District	: 200 km                      4 hours                      30 minutes						
Distance from Capital of Province	: 15 km                      0 hours                      30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 43.28						
Total Population	: 39,617                      Male : 19,871                      Female : 19,746						
Population in labor force	: n/a						
Population of children under 5 years-old	: 2,218						
Number of Household	: 7,923						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 4 village health post						
Number of Primary/Junior High/ Senior High School	: 25 / 3 / 2						
Number of students of primary, junior and high School	: 3804 / 1453 / 310						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>16a. Kecamatan : Luragung</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Walahrageur	2.25	498	2,489	1,262	1,227	
2	Dukuhpung	2.33	681	3,406	1,727	1,679	
3	Wilanagara	3.25	848	4,241	2,149	2,092	
4	Sindangsari	3.35	311	1,555	798	757	
5	Cigedang	12.63	533	2,663	1,289	1,374	
6	Luragung Tonggoh	1.16	479	2,396	1,140	1,256	160
7	Margasari	0.36	185	925	474	451	
8	Cirahayu	2.26	636	3,179	1,573	1,606	49
9	Sindangsuka	2.98	258	1,292	627	665	472
10	Cikandang	3.35	588	2,939	1,491	1,448	
11	Panyosogan	2.33	629	3,147	1,594	1,553	
12	Gunung Karung	1.59	603	3,014	1,470	1,544	
13	Dukuhmaja	2.43	656	3,281	1,681	1,600	411
14	Luragung Landeuh	3.01	1,018	5,090	2,596	2,494	716
	<b>Total</b>	<b>43.28</b>	<b>7,923</b>	<b>39,617</b>	<b>19,871</b>	<b>19,746</b>	<b>1,808</b>

Source : Luragung sub-district in figure, 2009

**16b. IKK\_Luragung, Lebakwangi Sub-District, Kuningan District  
West Java Province ( B-14 )**

<b>General Profile</b>			
Province	:	West Java	
District	:	Kuningan	
Sub-District	:	Lebakwangi	
Name of IKK	:	Lebakwangi	
Name of SPAM-IKK	:	Luragung	
Distance from Capital of District	:	200 km	4 hours 30 minutes
Distance from Capital of Province	:	15 km	0 hours 30 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	43.28	
Total Population	:	39,819	Male : 20,164 Female : 19,655
Population in labor force	:	n/a	
Population of children under 5 years-old	:	2,218	
Number of Household	:	14,199	
Average of household size	:	4	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	4 village health post	
Number of Primary/Junior High/ Senior High School	:	25 / 3 / 2	
Number of students of primary, junior and high School	:	3804 / 1453 / 310	
Primary industries	:	n/a	

<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input type="checkbox"/>	a. Separated (isolated) new distribution system
<input type="checkbox"/>	b. Connected to available system in Kecamatan
<input checked="" type="checkbox"/>	c. New source for supporting available piping system in capital of Kabupaten
<input type="checkbox"/>	d. Others

**16b. Kecamatan : Lebakwangi**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Mekarwangi	43.28	1,714	39,819	20,164	19,655	20
2	Desa Pagundang		1,285				14
3	Desa Manggari		2,842				48
4	Desa Pasayangan		561				29
5	Desa Bendungan		781				47
6	Desa Langseb		729				
7	Desa Cinagara		1,147				1
8	Desa Sindang		963				
9	Desa Cineumbeuy		929				
10	Desa Petir		766				
11	Desa Lebakwangi		1,392				
12	Desa Mancagar		432				
13	Desa Pajawankidul		658				
	<b>Total</b>	<b>43.28</b>	<b>14,199</b>	<b>39,819</b>	<b>20,164</b>	<b>19,655</b>	<b>159</b>

Source :

**17. IKK\_Ciwaringin, Ciwaringin Sub-District, Cirebon District  
West Java Province ( B-15 )**

<b>General Profile</b>								
Province	:	West Java						
District	:	Cirebon						
Sub-District	:	Ciwaringin						
Name of IKK	:	Ciwaringin						
Name of SPAM-IKK	:	Ciwaringin						
Distance from Capital of District	:	30 km	1 hours	0 minutes				
Distance from Capital of Province	:	125 km	4 hours	0 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	17.79						
Total Population	:	35,952	Male :	17,721	Female :	18,231		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	302						
Number of Household	:	11,394						
Average of household size	:	3						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	1 / 3						
Number of Primary/Junior High/ Senior High School	:	17 / 4 / 4						
Number of students of primary, junior and high School	:	16647 / 2248 / 858						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>17. Kecamatan : Ciwaringin</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Ciwaringin	2.12	1,235	5,440	2,703	2,737		IKK
2	Babakan	1.69	1,058	4,149	2,072	2,077		
3	Budur	2.84	2,607	4,671	2,207	2,464		
4	Gintung Ranjeng	1.85	1,224	4,506	2,270	2,236		
5	Gintung Kidul	2.12	1,716	5,716	2,762	2,954		
6	Gintung tengah	1.75	657	2,410	1,217	1,193		
7	Bringin	2.62	1,636	4,275	2,110	2,165		
8	Galagamba	2.80	1,261	4,785	2,380	2,405		
	<b>Total</b>	<b>17.79</b>	<b>11,394</b>	<b>35,952</b>	<b>17,721</b>	<b>18,231</b>	<b>0</b>	

Source : Ciwaringin sub-district in figure, 2008

**18a. IKK\_Palasari\_Bogor Selatan sub District, Bogor City District  
West Java Province ( B-16 )**

<b>General Profile</b>								
Province	:	West Java						
District	:	Bogor City						
Sub-District	:	Bogor Selatan						
Name of IKK	:	Mulyaharja						
Name of SPAM-IKK	:	Palasari						
Distance from Capital of District	:	6 km	0 hours	20 minutes				
Distance from Capital of Province	:	100 km	2 hours	0 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	30.81						
Total Population	:	179,494	Male :	91,850	Female :	87,644		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	18,921						
Number of Household	:	41,903						
Average of household size	:	6						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	22 village health post						
Number of Primary/Junior High/ Senior High School	:	52 / 24 / 19						
Number of students of primary, junior and high School	:	20285 / 7975 / 5155						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>18a. Kecamatan : Bogor Selatan</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Mulyaharja	479.00	4,506	16,225	8,459	7,766		IKK
2	Pamoyanan	264.00	3,008	12,759	6,376	6,383	86	
3	Ranggamekar	148.00	3,076	12,994	6,645	6,349		
4	Genteng	173.00	1,775	7,710	3,993	3,717		
5	Kertamaya	360.00	1,305	5,387	2,680	2,707		
6	Rancamaya	184.00	1,469	6,119	3,170	2,949		
7	Bojongkarta	226.00	2,107	9,157	4,773	4,384		
8	Harjasari	167.50	376	15,064	7,824	7,240		
9	Muarasari	153.70	2,331	10,165	5,349	4,816		
10	Pakuang	104.00	1,477	5,818	3,023	2,795		
11	Cipaku	240.00	3,372	13,196	6,788	6,408		
12	Lawanggintung	61.00	2,317	8,153	4,196	3,957		
13	Batutulis	66.00	2,600	9,109	4,491	4,618		
14	Bondongang	68.00	3,609	14,361	7,287	7,074		
15	Empang	79.00	4,430	17,569	8,785	8,784		
16	Cikaret	153.50	4,145	15,708	8,011	7,697		
	<b>Total</b>	<b>2,927</b>	<b>41,903</b>	<b>179,494</b>	<b>91,850</b>	<b>87,644</b>	<b>86</b>	

Source : Bogor Selatan sub-district in figure, 2009

**18b. IKK\_Palasari, Cijeruk sub District Bogor District  
West Java Province ( B-16 )**

<b>General Profile</b>							
Province	: West Java						
District	: Bogor						
Sub-District	: Cijeruk						
Name of IKK	: Cijeruk						
Name of SPAM-IKK	: Palasari						
Distance from Capital of District	: 6 km                      0 hours                      20 minutes						
Distance from Capital of Province	: 100 km                      2 hours                      0 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 36.50						
Total Population	: 75,137                      Male : 38,783                      Female : 36,354						
Population in labor force	: n/a						
Population of children under 5 years-old	: 8,280						
Number of Household	: 19,040						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 3 village health post						
Number of Primary/Junior High/ Senior High School	: 38 / 6 / 0						
Number of students of primary, junior and high School	: 10844 / 1210 / 0						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>18b. Kecamatan : Cijeruk</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Palasari	4.25	2,934	75,137	38,783	36,354	36
2	Desa Warung Meteng	2.29	1,721				
3	Desa Cijeruk	4.30	1,767				
4	Desa Cipelang	6.46	2,358				
5	Desa Cibalung	3.35	1,895				
6	Desa Cicipung	4.62	2,421				
7	Desa Taman Sari	2.00	1,246				
8	Desa Tanjung Halang	3.91	1,512				
9	Desa Sukaharja	5.32	3,186				
Total		36.50	19,040	75,137	38,783	36,354	36

Source : Cijeruk sub-district in figure, 2009

**19. IKK\_Toroh, Toroh Sub-District, Grobogan District  
Central Java Province ( A-3 )**

<b>General Profile</b>								
Province	: Central Java							
District	: Grobogan							
Sub-District	: Toroh							
Name of IKK	: Sindurejo							
Name of SPAM-IKK	: Toroh							
Distance from Capital of District	: 9 km                      0 hours                      15 minutes							
Distance from Capital of Province	: 60 km                      1 hours                      30 minutes							
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	: 119.33							
Total Population	: 114,785                      Male : 57,289                      Female : 57,496							
Population in labor force	: n/a							
Population of children under 5 years-old	: 2,894							
Number of Household	: 33,471							
Average of household size	: 4							
Average monthly income of household unemployed	: n/a							
Number of health post/support health post/ village health post	: 1 / 4							
Number of Primary/Junior High/ Senior High School	: 26 / 5 / 2							
Number of students of primary, junior and high School	: 11673 / 2820 / 660							
Primary industries	: n/a							
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>19. Kecamatan : Toroh</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Dimoro	9.38	2,556	9,117	4,534	4,583		
2	Genengadal	4.93	2,133	6,609	3,274	3,335		
3	Sindurejo	8.95	2,729	9,445	4,633	4,812	2,729	IKK
4	Bandungharjo	14.06	2,040	7,453	3,763	3,690	2,040	
5	Genengsari	8.32	1,133	3,634	1,815	1,819		
6	Kenteng	12.88	2,290	7,530	3,673	3,857		
7	Ngrandah	7.18	1,559	5,752	2,954	2,798		
8	Tunggak	7.92	2,270	8,861	4,208	4,653		
9	Boloh	8.59	2,580	8,093	4,138	3,955		
10	Posoharjo	4.50	1,532	5,595	2,745	2,850		
11	Tambirejo	5.46	2,305	7,901	3,925	3,976		
12	Depok	7.63	3,615	12,314	6,391	5,923	3,615	
13	Krangganharjo	4.14	1,537	5,120	2,589	2,531	1,537	
14	Sugihan	5.82	1,982	6,812	3,405	3,407		
15	Pilangpayung	4.96	1,952	6,363	3,160	3,203		
16	Katong	4.61	1,258	4,186	2,082	2,104		
<b>Total</b>		<b>119.33</b>	<b>33,471</b>	<b>114,785</b>	<b>57,289</b>	<b>57,496</b>	<b>9,921</b>	

Source : Toroh sub-district in figure, 2006  
Grobogan district in figure, 2008

**20. IKK\_Gubug, Gubug Sub-District, Grobogan District  
Central Java Province ( B-18 )**

<b>General Profile</b>								
Province	:	Central Java						
District	:	Grobogan						
Sub-District	:	Gubug						
Name of IKK	:	Gubug						
Name of SPAM-IKK	:	Gubug						
Distance from Capital of District	:	33 km	1 hours			0 minutes		
Distance from Capital of Province	:	60 km	1 hours			30 minutes		
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	71.20						
Total Population	:	47,772	Male :	23,660	Female :	24,112		
Population in labor force	:	52,721						
Population of children under 5 years-old	:	8,934						
Number of Household	:	22,144						
Average of household size	:	3						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:							
Number of Primary/Junior High/ Senior High School	:	50 / 8 / 8						
Number of students of primary, junior and high School	:	9267 / 3285 / 3536						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>20. Kecamatan : Gubug</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Penadaran	10.56	1,198	2,487	1,224	1,263		
2	Gelapan	4.07	544	1,080	527	553		
3	Ngroto	3.34	1,364	2,906	1,429	1,477		
4	Ginggangtani	2.35	1,037	2,618	1,311	1,307		
5	Jeketro	2.71	778	1,944	995	949		
6	Saban	1.98	653	1,550	772	778		
7	Milir	3.20	1,120	2,321	1,169	1,152		
8	Kemiri	2.29	942	2,054	1,003	1,051		
9	Papanrejo	2.28	691	1,391	695	696		
10	Kunjeng	2.95	796	1,827	915	912		
11	Trisari	2.77	831	1,706	856	850		
12	Kuwaron	4.80	2,167	4,840	2,421	2,419		
13	Rowosari	3.44	912	1,741	851	890		
14	Gubug	4.02	2,854	5,477	2,685	2,792	45	IKK
15	Praten	2.04	557	1,146	566	580		
16	Jatipecaron	1.87	605	1,294	643	651		
17	Baturagung	4.21	1,247	3,299	1,652	1,647		
18	Tambakan	2.95	964	1,855	889	966		
19	Ringinkidul	1.59	482	1,042	521	521		
20	Ringinharjo	3.58	1,064	2,117	1,052	1,065		
21	Tlogomulyo	4.20	1,338	3,077	1,484	1,593		
	<b>Total</b>	<b>71.20</b>	<b>22,144</b>	<b>47,772</b>	<b>23,660</b>	<b>24,112</b>	<b>45</b>	

Source : Gubug sub-district in figure, 2007  
Grobogan district in figure, 2008

**21. IKK\_Boja, Boja Sub-District, Kendal District  
Central Java Province ( A-4 )**

<b>General Profile</b>							
Province	:	Central Java					
District	:	Kendal					
Sub-District	:	Boja					
Name of IKK	:	Boja					
Name of SPAM-IKK	:	Boja					
Distance from Capital of District	:	28 km	1 hours	0 minutes			
Distance from Capital of Province	:	24 km	0 hours	40 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	64.10					
Total Population	:	64,252	Male :	31,514	Female :	32,738	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	7,369					
Number of Household	:	16,106					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 / 5 / 22					
Number of Primary/Junior High/ Senior High School	:	65 / 5 / 2					
Number of students of primary, junior and high School	:	11673 / 2820 / 660					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>21. Kecamatan : Boja</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Purwogondo	3.38	752	2,951	1,454	1,497	
2	Kaligading	2.71	1,039	3,529	1,853	1,676	
3	Salamasri	2.47	496	1,870	876	994	
4	Blimbing	3.78	636	2,411	1,181	1,230	
5	Bebengan	4.24	1,469	6,198	3,001	3,197	
6	Boja	3.67	2,545	12,706	6,023	6,683	2,209
7	Meleseh	7.61	1,388	7,195	3,432	3,763	
8	Trisobo	4.53	605	2,275	1,140	1,135	
9	Campurejo	3.27	1,386	4,190	2,083	2,107	
10	Tampingan	1.94	931	3,142	1,589	1,553	
11	Karangmanggis	3.94	426	1,707	835	872	
12	Ngabean	5.23	1,264	4,734	2,406	2,328	
13	Kliris	2.97	641	2,545	1,267	1,278	
14	Puguh	1.58	362	1,534	790	744	
15	Medono	2.22	278	947	462	485	
16	Pasigitan	5.44	773	2,573	1,279	1,294	
17	Leban	3.17	463	1,989	1,004	985	
18	Banjarejo	1.95	652	1,756	839	917	
	<b>Total</b>	<b>64.10</b>	<b>16,106</b>	<b>64,252</b>	<b>31,514</b>	<b>32,738</b>	<b>2,209</b>

Source : Boja sub-district in figure, 2007



**22. IKK\_ Sawit, Sawit Sub-District, Boyolali District  
Central Java Province ( B-17 )**

<b>General Profile</b>			
Province	:	Central Java	
District	:	Boyolali	
Sub-District	:	Sawit	
Name of IKK	:	Kemasan	
Name of SPAM-IKK	:	Sawit	
Distance from Capital of District	:	16 km	0 hours 30 minutes
Distance from Capital of Province	:	48 km	1 hours 15 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	17.24	
Total Population	:	33,011	Male : 16,311 Female : 16,700
Population in labor force	:	n/a	
Population of children under 5 years-old	:	2,473	
Number of Household	:	7,815	
Average of household size	:	4	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	1 / 2	
Number of Primary/Junior High/ Senior High School	:	22 / 3 / 1	
Number of students of primary, junior and high School	:	2218 / 2134 / 505	
Primary industries	:	n/a	

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**22. Kecamatan : Sawit**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Tegalrejo	1.40	757	3,333	1,654	1,679	
2	Gombang	1.28	601	2,453	1,247	1,206	
3	Manjung	1.30	605	2,549	1,264	1,285	
4	Kateguhan	1.58	812	3,704	1,832	1,872	
5	Bendosari	1.72	626	2,715	1,337	1,378	17
6	Jatirejo	1.94	723	2,913	1,415	1,498	29
7	Kemasan	1.26	689	2,723	1,350	1,373	IKK
8	Tlawong	1.34	575	2,413	1,241	1,172	
9	Jenangan	1.63	644	2,491	1,237	1,254	
10	Cepoko Sawit	1.24	543	2,151	1,037	1,114	
11	Guwokajen	1.56	619	2,804	1,342	1,462	7
12	Karangduren	0.99	621	2,762	1,355	1,407	76
	<b>Total</b>	<b>17.24</b>	<b>7,815</b>	<b>33,011</b>	<b>16,311</b>	<b>16,700</b>	<b>129</b>

Source : Sawit sub-district in figure, 2008/2009

**23. IKK\_Sulang, Sulang Sub-District, Rembang District  
Central Java Province ( B-19 )**

<b>General Profile</b>								
Province	:	Central Java						
District	:	Rembang						
Sub-District	:	Sulang						
Name of IKK	:	Sulang						
Name of SPAM-IKK	:	Sulang						
Distance from Capital of District	:	10 km	0 hours	15 minutes				
Distance from Capital of Province	:	111 km	3 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	83.68						
Total Population	:	38,840	Male :	19,245	Female :	19,595		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	2,894						
Number of Household	:	9,640						
Average of household size	:	4						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	1 / 4						
Number of Primary/Junior High/ Senior High School	:	26 / 5 / 2						
Number of students of primary, junior and high School	:	3053 / 2124 / 490						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>23. Kecamatan : Sulang</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Tanjung	4.88	317	1,273	642	631		
2	Kemadu	6.01	682	3,828	1,950	1,878		
3	Sulang	4.35	1,089	4,237	2,166	2,071	240	IKK
4	Pomahang	6.53	469	1,872	933	939		
5	Rukem	1.41	243	968	478	490		
6	Korowelang	1.37	144	549	279	270		
7	Karangharjo	2.67	279	1,010	483	527		
8	Jatimudo	2.88	413	1,494	764	730	110	
9	Kunir	5.20	469	1,817	899	918		
10	Glebeg	3.67	482	2,231	1,081	1,150		
11	Bogorane	2.79	295	1,254	627	627	20	
12	Kaliombo	10.09	884	3,428	1,691	1,737	192	
13	Sudo	6.62	352	1,242	603	639		
14	Karangsari	3.95	582	2,199	1,065	1,134		
15	Pragu	1.12	291	1,234	616	618		
16	Kebonagung	0.48	343	1,164	560	604		
17	Seren	6.98	639	2,505	1,195	1,310		
18	Pranti	0.76	221	768	361	407		
19	Pedak	3.01	523	1,939	951	988		
20	Landoh	4.17	518	2,400	1,182	1,218	101	
21	Kerep	4.74	405	1,428	719	709		
<b>Total</b>		<b>83.68</b>	<b>9,640</b>	<b>38,840</b>	<b>19,245</b>	<b>19,595</b>	<b>663</b>	

Source : Sulang sub-district in figure, 2008  
Rembang district in figure, 2008/2009

**24. IKK Bancar, Bancar Sub-District, Tuban District  
East Java Province ( B-20 )**

<b>General Profile</b>							
Province	:	East Java					
District	:	Tuban					
Sub-District	:	Bancar					
Name of IKK	:	Bancar					
Name of SPAM-IKK	:	Bancar					
Distance from Capital of District	:	56 km	1 hours	15 minutes			
Distance from Capital of Province	:	108 km	2 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	112.37					
Total Population	:	55,506	Male :	27,106	Female :	28,400	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	14,923					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 / 3					
Number of Primary/Junior High/ Senior High School	:	85 / 7 / 4					
Number of students of primary, junior and high School	:	6114 / 1848 / 229					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>24. Kecamatan : Bancar</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Jatisari	4.37	189	699	332	367	
2	Kayen	4.46	450	1,708	843	865	
3	Sukoharjo	9.93	591	2,230	1,084	1,146	
4	Sidomulyo	5.53	436	1,766	872	894	
5	Cingklung	1.59	186	795	382	413	
6	Margosuko	6.64	617	2,504	1,214	1,290	
7	Ngampelrejo	6.03	586	2,277	1,134	1,143	
8	Pugoh	4.18	497	2,087	999	1,088	
9	Karangrejo	5.87	680	2,625	1,276	1,349	
10	Sumberan	1.60	400	1,543	765	778	
11	Siding	6.39	591	2,189	1,056	1,133	
12	Tengger Kulon	2.42	612	2,011	907	1,104	
13	Ngujuran	9.55	973	3,823	1,869	1,954	
14	Tlogoagung	8.93	920	3,355	1,652	1,703	
15	Latsari	5.41	1,015	3,272	1,644	1,628	
16	Sukolilo	4.75	733	2,621	1,268	1,353	150
17	Bulujowo	3.12	1,180	4,373	2,197	2,176	160
18	Bulumeduro	0.04	317	1,245	609	636	30
19	Banjarejo	0.90	1,378	4,578	2,221	2,357	58
20	Tergabung	2.14	470	1,760	882	878	
21	Sembungin	8.87	781	2,966	1,456	1,510	
22	Boncong	2.29	295	1,325	604	721	
23	Bogorejo	4.55	507	1,668	793	875	
24	Bancar	2.81	519	2,086	1,047	1,039	IKK
<b>Total</b>		<b>112.37</b>	<b>14,923</b>	<b>55,506</b>	<b>27,106</b>	<b>28,400</b>	<b>398</b>

Source : Bancar sub-district in figure, 2009  
Tuban district in figure, 2009

**25. IKK Jenangan, Jenangan Sub-District, Ponorogo District  
East Java Province ( B-21 )**

<b>General Profile</b>							
Province	: East Java						
District	: Ponorogo						
Sub-District	: Jenangan						
Name of IKK	: Jenangan						
Name of SPAM-IKK	: Jenangan						
Distance from Capital of District	: 15 km                      0 hours                      20 minutes						
Distance from Capital of Province	: 202 km                      5 hours                      5 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 59.47						
Total Population	: 59,677                      Male : 29,554                      Female : 30,123						
Population in labor force	: n/a						
Population of children under 5 years-old	: 4,891						
Number of Household	: 18,031						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 4						
Number of Primary/Junior High/ Senior High School	: 33 / 3 / 3						
Number of students of primary, junior and high School	: 3633 / 970 / 1180						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>25. Kecamatan : Jenangan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Setono	1.60	764	2,717	1,349	1,368	
2	Singosaren	2.28	1,545	4,353	2,078	2,275	
3	Mrican	5.85	1,209	4,260	2,148	2,112	
4	Plalangan	5.47	1,280	4,787	2,399	2,388	23
5	Nglayang	4.11	616	2,580	1,245	1,335	
6	Jenangan	4.54	1,967	5,115	2,511	2,604	427
7	Jimbe	3.54	857	3,329	1,708	1,621	637
8	Ngrupit	3.97	1,893	6,350	3,146	3,204	
9	Pintu	1.63	723	2,067	1,033	1,034	
10	Sedah	1.82	529	1,852	936	916	
11	Panjeng	1.88	529	1,849	915	934	114
12	Sraten	1.63	507	1,115	549	566	
13	Semanding	2.89	991	3,058	1,442	1,616	
14	Tanjungsari	3.23	833	3,132	1,565	1,567	
15	Paringan	6.89	1,934	5,926	2,943	2,983	
16	Wates	3.07	773	3,048	1,567	1,481	
17	Kemiri	5.07	1,081	4,139	2,020	2,119	
	<b>Total</b>	<b>59.47</b>	<b>18,031</b>	<b>59,677</b>	<b>29,554</b>	<b>30,123</b>	<b>1,201</b>

Source : Jenangan sub-district in figure, 2009

**26. IKK Gemarang, Gemarang Sub-District, Madiun District  
East Java Province ( B-22 )**

<b>General Profile</b>								
Province	: East Java							
District	: Madiun							
Sub-District	: Gemarang							
Name of IKK	: Gemarang							
Name of SPAM-IKK	: Gemarang							
Distance from Capital of District	: 37 km                      0 hours                      50 minutes							
Distance from Capital of Province	: 169 km                      4 hours                      30 minutes							
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	: 101.97							
Total Population	: 35,696                      Male : 18,182                      Female : 17,514							
Population in labor force	: n/a							
Population of children under 5 years-old	: n/a							
Number of Household	: 7,140							
Average of household size	: 4							
Average monthly income of household unemployed	: n/a							
Number of health post/support health post/ village health post	: 4							
Number of Primary/Junior High/ Senior High School	: 29 / 3 / 1							
Number of students of primary, junior and high School	: 3162 / 693 /							
Primary industries	: 3							
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>26. Kecamatan : Gemarang</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Batok	9.31	1,027	5,133	2,582	2,551		
2	Durenan	5.65	1,051	5,253	2,698	2,555		
3	Winong	10.22	1,248	6,242	3,244	2,998		
4	Tawangrejo	23.38	1,452	7,261	3,567	3,694		
5	Gemarang	23.77	910	4,548	2,329	2,219	435	IKK
6	Sebayi	2.48	725	3,625	1,879	1,746	350	
7	Nampu	27.16	727	3,634	1,883	1,751	328	
	<b>Total</b>	<b>101.97</b>	<b>7,140</b>	<b>35,696</b>	<b>18,182</b>	<b>17,514</b>	<b>1,113</b>	

Source : Gemarang sub-district in figure, 2008

**27. IKK\_Burneh, Burneh Sub-District, Bangkalan District  
East Java Province ( B-23 )**

<b>General Profile</b>			
Province	:	East Java	
District	:	Bangkalan	
Sub-District	:	Burneh	
Name of IKK	:	Burneh	
Name of SPAM-IKK	:	Burneh	
Distance from Capital of District	:	4 km	0 hours      5 minutes
Distance from Capital of Province	:	28 km	0 hours      40 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	62.40	
Total Population	:	58,822	Male : 27,733      Female : 31,089
Population in labor force	:	n/a	
Population of children under 5 years-old	:	n/a	
Number of Household	:	10,292	
Average of household size	:	6	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	1 / 4 / 9	
Number of Primary/Junior High/ Senior High School	:	93 / 29 / 5	
Number of students of primary, junior and high School	:	6612 / 2334 /	
Primary industries	:	n/a	

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**27. Kecamatan : Burneh**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Jambu	2.34	549	1,689	772	917		
2	langkap	6.26	1,381	7,087	3,324	3,763		
3	Burneh	7.56	1,732	7,969	3,868	4,101	4	IKK
4	Benangka	10.46	1,391	7,841	3,814	4,027		
5	Alas Kembang	4.81	617	3,478	1,643	1,835		
6	Binoh	5.82	728	3,782	1,821	1,961		
7	Perreng	5.08	558	5,163	1,985	3,178		
8	Pangolongan	5.40	722	3,150	1,433	1,717		
9	Sobih	4.10	647	2,803	1,397	1,406		
10	Tonjung	5.21	1,481	13,224	6,439	6,785	370	
11	Kapor	3.65	274	2,034	952	1,082		
12	Arok	1.71	212	602	285	317		
	<b>Total</b>	<b>62.40</b>	<b>10,292</b>	<b>58,822</b>	<b>27,733</b>	<b>31,089</b>	<b>374</b>	

Source : Burneh sub-district in figure, 2009  
 Bangkalan district in figure, 2009

**28. IKK Kepung, Kepung Sub-District, Kediri District  
East Java Province ( B-24 )**

<b>General Profile</b>							
Province	: East Java						
District	: Kediri						
Sub-District	: Kepung						
Name of IKK	: Kepung						
Name of SPAM-IKK	: Kepung						
Distance from Capital of District	: 40 km                      0 hours                      60 minutes						
Distance from Capital of Province	: 96 km                      2 hours                      30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 101.53						
Total Population	: 76,862                      Male : 37,963                      Female : 38,899						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 18,710						
Average of household size	: 4						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 6						
Number of Primary/Junior High/ Senior High School	: 37 / 8 / 3						
Number of students of primary, junior and high School	: 6786 / 2641 / n/a						
Primary industries	: 1						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>28. Kecamatan : Kepung</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kebunrejo	4.25	1,026	3,920	1,931	1,989	454
2	Besowo	40.98	1,835	6,723	3,249	3,474	1
3	Kampungbaru	7.89	2,170	7,776	3,788	3,988	
4	Siman	5.13	1,746	6,934	3,428	3,506	150
5	Brumbung	4.66	1,258	5,142	2,534	2,608	
6	Kepung	13.44	3,420	13,846	6,892	6,954	3
7	Krenceng	8.83	2,470	11,139	5,462	5,677	
8	Kencong	3.97	1,356	6,277	3,100	3,177	
9	Keling	6.20	1,522	6,331	3,056	3,275	
10	Damarwulan	6.18	1,907	8,774	4,523	4,251	
	<b>Total</b>	<b>101.53</b>	<b>18,710</b>	<b>76,862</b>	<b>37,963</b>	<b>38,899</b>	<b>608</b>

Source : Kepung sub-district in figure, 2008

**29. IKK\_Selopamiaro, Imogiri Sub-District, Bantul District  
Yogyakarta Province ( B-25 )**

29. Kecamatan : Imogiri							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Selopamiaro	22.75	4,271	13,895	6,739	7,156	70
2	Sriharjo	6.32	2,446	9,823	4,750	5,073	
3	Kebonagung	1.87	1,368	3,372	1,656	1,716	
4	Karantengah	2.88	1,355	5,069	2,418	2,651	
5	Giri Irejo	3.24	929	4,645	2,316	2,329	
6	Karantalan	1.21	974	2,899	1,375	1,524	
7	Imogiri	0.83	1,005	3,894	1,840	2,054	IKK
8	Wukirsari	15.39	4,480	15,518	7,779	7,739	
	<b>Total</b>	<b>54.49</b>	<b>16,828</b>	<b>59,115</b>	<b>28,873</b>	<b>30,242</b>	<b>70</b>

Source : Imogiri sub-district in figure, 2009

General Profile			
Province	:	Yogyakarta	
District	:	Bantul	
Sub-District	:	Imogiri	
Name of IKK	:	Imogiri	
Name of SPAM-IKK	:	Selopamiaro	
Distance from Capital of District	:	24 km	0 hours 30 minutes
Distance from Capital of Province	:	18 km	0 hours 25 minutes
Profile of Kecamatan:			
Area (km <sup>2</sup> )	:	54.49	
Total Population	:	59,115	Male : 28,873 Female : 30,242
Population in labor force	:	n/a	
Population of children under 5 years-old	:	4,417	
Number of Household	:	16,828	
Average of household size	:	4	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	10	
Number of Primary/Junior High/ Senior High School	:	20 / 5 / 5	
Number of students of primary, junior and high School	:	4771 / 2396 / 1513	
Primary industries	:	n/a	
Piped water supply service in IKK :			
Status of SPAM-IKK:			
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others			



**30. IKK\_Gamping, Gamping Sub-District, Sleman District  
Yogyakarta Province ( B-26 )**

<b>General Profile</b>								
Province	: Yogyakarta							
District	: Sleman							
Sub-District	: Gamping							
Name of IKK	: Gamping							
Name of SPAM-IKK	: Gamping							
Distance from Capital of District	: 15 km                      0 hours                      25 minutes							
Distance from Capital of Province	: 12 km                      0 hours                      25 minutes							
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	: 29.25							
Total Population	: 75,008                      Male : 36,853                      Female : 38,155							
Population in labor force	: n/a							
Population of children under 5 years-old	: n/a							
Number of Household	: 17,783							
Average of household size	: 4							
Average monthly income of household unemployed	: n/a							
Number of health post/support health post/ village health post	: 7							
Number of Primary/Junior High/ Senior High School	: 39 / 8 / 8							
Number of students of primary, junior and high School	: n/a							
Primary industries	: n/a							
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>30. Kecamatan : Gamping</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Balecatur	9.86	3,904	16,446	8,167	8,279	215	IKK
2	Ambarketawang	6.28	3,099	17,297	8,063	9,234		
3	Banyuraden	4.00	2,865	12,916	6,418	6,498		
4	Nogotirto	3.49	5,223	14,916	7,537	7,379		
5	Trihanggo	5.62	2,692	13,433	6,668	6,765		
	<b>Total</b>	<b>29.25</b>	<b>17,783</b>	<b>75,008</b>	<b>36,853</b>	<b>38,155</b>	<b>215</b>	

Source : Gamping sub-district in figure, 2009

**31. IKK\_Jungkat, Siantan Sub-District, Pontianak District  
West Kalimantan Province ( A-5 )**

<b>General Profile</b>							
Province	:	West Kalimantan					
District	:	Pontianak					
Sub-District	:	Siantan					
Name of IKK	:	Jungkat					
Name of SPAM-IKK	:	Jungkat					
Distance from Capital of District	:	35 km	0 hours	45 minutes			
Distance from Capital of Province	:	60 km	1 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	324.31					
Total Population	:	44,395	Male :	22,425	Female :	21,970	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	10,580					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 / 2 / 5					
Number of Primary/Junior High/ Senior High School	:	22 / 5 / 2					
Number of students of primary, junior and high School	:	n/a					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>31. Kecamatan : Siantan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Wajok Hulu	89.72	2,729	12,291	6,293	5,998	182 IKK
2	Wajok Hilir	70.64	2,366	9,678	4,887	4,791	
3	Jungkat	107.46	3,582	14,722	7,396	7,326	
4	Sungai Nipah	32.99	1,108	4,519	2,297	2,222	
5	Peniti Luar	23.50	795	3,185	1,552	1,633	
Total		324.31	10,580	44,395	22,425	21,970	182

Source : Siantan sub-district in figure, 2008

**32. IKK\_ Sei Bulan, Singkawang Utara Sub-District, Singkawang Municipality  
West Kalimantan Province ( A-6 )**

<b>General Profile</b>							
Province	:	West Kalimantan					
District	:	Singkawang					
Sub-District	:	Singkawang Utara					
Name of IKK	:	Sei Bulan					
Name of SPAM-IKK	:	Sei Bulan					
Distance from Capital of District	:	17 km	0 hours	25 minutes			
Distance from Capital of Province	:	150 km	2 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	94.35					
Total Population	:	19,856	Male :	10,243	Female :	9,613	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	6,274					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	2 / 5 / 22					
Number of Primary/Junior High/ Senior High School	:	13 / 4 / 2					
Number of students of primary, junior and high School	:	2651 / 334 / 324					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>32. Kecamatan : Singkawang Utara</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Sei Garam Hilir	6.00	939	3,283	1,669	1,614	
2	Sei Bulan	9.00	663	1,755	898	857	IKK
3	Sei Rasau	9.00	634	1,875	993	882	
4	Setapuk Kecil	12.00	851	2,044	1,051	993	
5	Setapuk Besar	20.45	1,688	5,778	3,003	2,775	
6	Semelangi Kecil	24.40	834	3,163	1,583	1,580	
7	Naram	13.50	665	1,958	1,046	912	
	<b>Total</b>	<b>94.35</b>	<b>6,274</b>	<b>19,856</b>	<b>10,243</b>	<b>9,613</b>	<b>0</b>

Source : Singkawang Utara sub-district in figure, 2008  
Singkawang city in figure, 2009

**33. IKK\_ Sepaku, Sepaku Sub-District, Penajam Paser Utara District  
East Kalimantan Province ( B-27 )**

<b>General Profile</b>			
Province	:	East Kalimantan	
District	:	Penajam Paser Utara	
Sub-District	:	Sepaku	
Name of IKK	:	Sepaku	
Name of SPAM-IKK	:	Sepaku	
Distance from Capital of District	:	81 km	1 hours 45 minutes
Distance from Capital of Province	:	170 km	3 hours 30 minutes

**Profile of Kecamatan:**

Area (km <sup>2</sup> )	:	1,373		
Total Population	:	30,708	Male : 15,629	Female : 15,079
Population in labor force	:	n/a		
Population of children under 5 years-old	:	n/a		
Number of Household	:	7,025		
Average of household size	:	4		
Average monthly income of household unemployed	:	n/a		
Number of health post/support health post/ village health post	:	16 village health post		
Number of Primary/Junior High/ Senior High School	:	26 / 7 / 5		
Number of students of primary, junior and high School	:	n/a		
Primary industries	:	n/a		

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**33. Kecamatan : Sepaku**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Maridan	59.42	2,077	9,203	4,687	4,516	
2	Mentawir	132.24	141	522	280	242	
3	Pemaluan	367.87	331	1,277	617	660	
4	Bumi Harapan	15.00	330	1,266	671	595	
5	Wonosari	33.41	264	1,088	368	720	
6	Semoi Dua	47.74	661	2,611	1,278	1,333	
7	Argo Mulyo	36.14	728	2,708	1,470	1,238	
8	Suko Mulyo	27.11	337	1,587	812	775	
9	Tengiri Baru	43.48	280	3,077	1,610	1,467	234
10	Suka Raja	77.38	810	3,167	1,680	1,487	
11	Bukit Raya	385.34	527	2,040	1,052	988	
12	Sepaku	133.97	345	1,356	687	669	IKK
13	Karang Jinawi	13.85	194	806	417	389	
	<b>Total</b>	<b>1,373</b>	<b>7,025</b>	<b>30,708</b>	<b>15,629</b>	<b>15,079</b>	<b>234</b>

Source : Sepaku sub-district in figure, 2009

**34. IKK\_ Loa Janan, Loa Janan Sub-District, Kutai Kartanegara District  
East Kalimantan Province ( B-28 )**

<b>General Profile</b>							
Province	:	East Kalimantan					
District	:	Kutai Kartanegara					
Sub-District	:	Loa Janan					
Name of IKK	:	Loa Janan					
Name of SPAM-IKK	:	Loa Janan					
Distance from Capital of District	:	36 km	0 hours	45 minutes			
Distance from Capital of Province	:	34 km	0 hours	45 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	644.20					
Total Population	:	50,876	Male :	26,445	Female :	24,431	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	12,950					
Average of household size	:	4					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	9					
Number of Primary/Junior High/ Senior High School	:	35 / 10 / 5					
Number of students of primary, junior and high School	:	7109 / 1961 / 1417					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>34. Kecamatan : Loa Janan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Batuah	67.06	1,984	7,226	3,665	3,561	
2	Tani Bakti	35.55	420	1,722	902	820	
3	Purwajaya	35.55	136	4,156	2,184	1,972	285
4	Loa Janan Ulu	11.90	2,856	10,613	5,439	5,174	223
5	Loa Duri Ulu	127.28	2,794	8,342	4,931	3,411	
6	Bakungan	208.33	1,509	6,428	3,239	3,189	
7	Loa Duri Ilir	127.28	2,685	9,995	5,056	4,939	
8	Tani Harapan	31.25	566	2,394	1,029	1,365	
	<b>Total</b>	<b>644.20</b>	<b>12,950</b>	<b>50,876</b>	<b>26,445</b>	<b>24,431</b>	<b>508</b>

Source : Loa Janan sub-district in figure, 2008

**35. IKK\_Kertak Hanyar, Kertak Hanyar Sub-District, Banjar District  
South Kalimantan Province ( B-29 )**

<b>General Profile</b>							
Province	:	South Kalimantan					
District	:	Banjar					
Sub-District	:	Kertak Hanyar					
Name of IKK	:	Manarap Lama					
Name of SPAM-IKK	:	Kertak Hanyar					
Distance from Capital of District	:	30 km	0 hours	45 minutes			
Distance from Capital of Province	:	38 km	1 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	45.83					
Total Population	:	34,465	Male :	16,300	Female :	18,165	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	8,325					
Average of household size	:	4.80					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	4 health post					
Number of Primary/Junior High/ Senior High School	:	25 / 5 / 1					
Number of students of primary, junior and high School	:	3606 / 1072 / 94					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>35. Kecamatan : Kertak Hanyar</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	T. Pemangkih Laut	2.75	321	1,504	807	697	
2	T. Belayung Baru	2.10	195	680	308	372	
3	Pasar Kemis	6.00	237	1,072	510	562	30
4	Banua Hanyar	4.75	106	465	223	242	12
5	Mekar Raya	2.00	270	785	365	420	
6	Sungai Lakum	4.15	370	1,908	976	932	250
7	Mandar Sari	2.03	511	2,130	1,093	1,037	
8	Manarap Baru	8.00	486	1,890	945	945	150
9	Manarap Tengah	1.15	521	2,415	1,235	1,180	300
10	Manarap Lama	1.00	1,055	4,802	2,405	2,397	600
11	Simpang Empat	7.50	992	4,401	1,419	2,982	
12	Kertak Hanyar II	2.20	1,419	4,705	2,226	2,479	500
13	Kertak Hanyar I	2.20	1,842	7,708	3,788	3,920	
	<b>Total</b>	<b>45.83</b>	<b>8,325</b>	<b>34,465</b>	<b>16,300</b>	<b>18,165</b>	<b>1,842</b>

Source : Kertak Hanyar sub-district in figure, 2009

**36. IKK\_ Binuang, Binuang Sub-District, Tapin District  
South Kalimantan Province ( B-30 )**

<b>General Profile</b>							
Province	:	South Kalimantan					
District	:	Tapin					
Sub-District	:	Binuang					
Name of IKK	:	Binuang					
Name of SPAM-IKK	:	Binuang					
Distance from Capital of District	:	28 km	0 hours	40 minutes			
Distance from Capital of Province	:	113 km	2 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	218.10					
Total Population	:	22,749	Male :	10,928	Female :	11,821	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	6,540					
Average of household size	:	3.70					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	4 health post					
Number of Primary/Junior High/ Senior High School	:	23 / 6 / 3					
Number of students of primary, junior and high School	:	3509 / 725 / 447					
Primary industries	:	2					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>36. Kecamatan : Binuang</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Tungkap	17.25	862	2,887	1,454	1,433	
2	A. Yani Pura	1.62	551	1,148	127	1,021	
3	Pualam Sari	12.34	640	2,425	1,238	1,187	
4	Binuang	73.75	3,092	11,235	5,563	5,672	128
5	Gunung Batu	16.50	278	1,070	505	565	
6	Padang Sari	19.86	163	471	239	232	
7	Pulau Pinang	43.57	496	1,804	920	884	
8	Pulau Pinang Utara	33.21	458	1,709	882	827	
	<b>Total</b>	<b>218.10</b>	<b>6,540</b>	<b>22,749</b>	<b>10,928</b>	<b>11,821</b>	<b>128</b>

Source : Binuang sub-district in figure, 2008/2009  
Tapin district in figure, 2009

**37. IKK\_Kereng Panggi, Kecamatan Katingan Hilir, Katingan District  
Central Kalimantan Province ( B-31 )**

<b>General Profile</b>							
Province	:	Central Kalimantan					
District	:	Katingan					
Sub-District	:	Katingan Hilir					
Name of IKK	:	Kasongan					
Name of SPAM-IKK	:	Kareng Panggi					
Distance from Capital of District	:	15 km	0 hours	30 minutes			
Distance from Capital of Province	:	82 km	1 hours	20 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	663.00					
Total Population	:	21,324	Male :	9,485	Female :	11,839	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	15,322					
Number of Household	:	5,993					
Average of household size	:	3.89					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 health post / 2 village health post					
Number of Primary/Junior High/ Senior High School	:	16 / 8 / 8					
Number of students of primary, junior and high School	:	3480 / 1166 / 1088					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>37. Kecamatan : Katingan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Tewang Kadamba	36.00	85	308	148	160	
2	Tumbang Liting	159.00	315	1,137	586	551	
3	Kasongan Baru	70.00	811	3,283	1,545	1,738	] IKK
4	Kasongan Lama	200.00	1,393	5,423	2,574	2,849	
5	Talian Kereng	77.00	388	1,395	730	665	
6	Banut Kalanaman	65.00	185	823	402	421	
7	Talangkah	31.00	643	2,146	1,012	1,134	99
8	Hampalit	25.00	2,173	6,809	2,488	4,321	249
Total		663.00	5,993	21,324	9,485	11,839	348

Source : Katingan sub-district in figure, 2007



**38. IKK\_Tumbang Talaken, Manuhing Sub-District, Gunung Mas District  
Central Kalimantan Province ( B-32 )**

<b>General Profile</b>			
Province	:	Central Kalimantan	
District	:	Gunung Mas	
Sub-District	:	Manuhing	
Name of IKK	:	Tumban Talaken	
Name of SPAM-IKK	:	Tumban Talaken	
Distance from Capital of District	:	130 km	4 hours 30 minutes
Distance from Capital of Province	:	158 km	3 hours 30 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	1,113.0	
Total Population	:	5,846	Male : 3,065 Female : 2,781
Population in labor force	:	n/a	
Population of children under 5 years-old	:	667	
Number of Household	:	1,877	
Average of household size	:	5.93	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	7 village health post	
Number of Primary/Junior High/ Senior High School	:	15 / 3 / 1	
Number of students of primary, junior and high School	:	905 / 285 / 178	
Primary industries	:	n/a	

<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input checked="" type="checkbox"/>	a. Separated (isolated) new distribution system
<input type="checkbox"/>	b. Connected to available system in Kecamatan
<input type="checkbox"/>	c. New source for supporting available piping system in capital of Kabupaten
<input type="checkbox"/>	d. Others

38. Kecamatan : Manuhing								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Tumbang Talaken	351.00	503	1,472	749	723	82	IKK
2	Takaras	93.00	169	531	272	259		
3	Bereng Jun	225.00	157	420	223	197		
4	Tangki Dahuyan	187.00	260	912	461	451		
5	Tumbang Jalemu	44.00	122	498	273	225		
6	Tumbang Sepan	70.00	61	151	77	74		
7	Belawan Mulia	15.00	109	321	179	142		
8	Taringen	61.00	85	247	136	111		
9	Bangun Sari	11.00	63	148	87	61		
10	Pajar Harapan	12.00	47	121	66	55		
11	Bereng Balawan	6.00	128	374	205	169		
12	Gohong	38.00	173	651	337	314		
	<b>Total</b>	<b>1,113.0</b>	<b>1,877</b>	<b>5,846</b>	<b>3,065</b>	<b>2,781</b>	<b>82</b>	

Source : Manuhing sub-district in figure, 2008

**39a. IKK\_Binangga (Sambo), Dolo Barat Sub-District, Sigi District  
Central Sulawesi Province ( B-33 )**

<b>General Profile</b>							
Province	:	Central Sulawesi					
District	:	Sigi					
Sub-District	:	Dolo Barat					
Name of IKK	:	Kaleke					
Name of SPAM-IKK	:	Binangga (Sambo)					
Distance from Capital of District	:	47 km	1 hours	20 minutes			
Distance from Capital of Province	:	20 km	0 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	112.18					
Total Population	:	12,084	Male :	5,356	Female :	6,728	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	2,418					
Average of household size	:	3.9					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 / 9 / 10					
Number of Primary/Junior High/ Senior High School	:	20 / 5 / 3					
Number of students of primary, junior and high School	:	1390 / n/a					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>39a. Kecamatan : Dolo Barat</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Bobo	18.18	218	1,092	512	580	2
2	Mantikale	12.54	31	157	74	83	
3	Pesaku	4.43	403	2,013	944	1,069	32
4	Balamua	17.10	257	1,283	602	681	
5	Rarampadende	4.12	368	1,838	862	976	28
6	Balumpewa	10.76	115	573	237	336	
7	Kaleke	10.53	410	2,051	850	1,201	17
8	Pewunu	3.26	415	2,073	859	1,214	41
9	Kalukutinggu	21.13	105	526	218	308	
10	Sibonu	10.13	96	478	198	280	1
	<b>Total</b>	<b>112.18</b>	<b>2,418</b>	<b>12,084</b>	<b>5,356</b>	<b>6,728</b>	<b>121</b>

Source : Dolo Barat sub-district in figure, 2009

**39b. IKK\_Binangga (Sambo), Dolo Selatan Sub-District, Sigi District  
Central Sulawesi Province ( B-33 )**

<b>General Profile</b>							
Province	:	Central Sulawesi					
District	:	Sigi					
Sub-District	:	Dolo Selatan					
Name of IKK	:	Baluase					
Name of SPAM-IKK	:	Binangga (Sambo)					
Distance from Capital of District	:	47 km	1 hours	20 minutes			
Distance from Capital of Province	:	20 km	0 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	584.72					
Total Population	:	15,500	Male :	7,813	Female :	7,687	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	4,192					
Average of household size	:	3.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 village health post					
Number of Primary/Junior High/ Senior High School	:	18 / 5 / 2					
Number of students of primary, junior and high School	:	2167 / n/a / n/a					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>39b. Kecamatan : Dolo Selatan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Bangga	185.08	536	2,163	929	1,234	
2	Walatana	95.26	363	1,432	720	712	
3	Bulubete	72.44	417	1,593	814	779	
4	Baluase	60.82	790	2,675	1,566	1,109	IKK
5	Rogo	59.24	441	1,761	862	899	
6	Pulu	39.10	397	1,427	716	711	
7	Balongga	19.29	231	805	420	385	
8	Wisolo	22.64	315	1,170	598	572	
9	Sambo	5.49	280	901	448	453	2
10	Jono	15.72	172	635	260	375	
11	Poi	9.64	250	938	480	458	
	<b>Total</b>	<b>584.72</b>	<b>4,192</b>	<b>15,500</b>	<b>7,813</b>	<b>7,687</b>	<b>2</b>

Source : Dolo Selatan sub-district in figure, 2009

**39c. IKK\_Binangga (Sambo), Marawola Sub-District, Sigi District  
Central Sulawesi Province ( B-33 )**

<b>General Profile</b>							
Province	: Central Sulawesi						
District	: Sigi						
Sub-District	: Marawola						
Name of IKK	: Binangga						
Name of SPAM-IKK	: Binangga (Sambo)						
Distance from Capital of District	: 47 km                      1 hours                      20 minutes						
Distance from Capital of Province	: 20 km                      0 hours                      30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 38.64						
Total Population	: 21,015                      Male : 10,185                      Female : 12,459						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 4,203						
Average of household size	: 5.0						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 10 village health post						
Number of Primary/Junior High/ Senior High School	: 17 / 3 / 2						
Number of students of primary, junior and high School	: 2205 / n/a / n/a						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>39c. Kecamatan : Marawola</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Lebanu	6.67	159	793	341	452	
2	Bomba	2.26	100	498	258	240	5
3	Beka	6.28	470	2,350	1,116	1,234	10
4	Sibedi	7.54	276	1,380	674	706	
5	Padende	4.38	206	1,030	511	519	
6	Binangga	2.11	622	3,111	1,507	1,604	IKK
7	Sunju	1.69	36	181	772	1,038	
8	Tinggede	2.36	780	3,898	1,861	2,037	
9	Baliase	1.98	803	4,015	1,539	2,476	
10	Boyabaliase	1.40	151	757	370	387	
11	Tinggide Selatan	1.97	600	3,002	1,236	1,766	
Total		38.64	4,203	21,015	10,185	12,459	15

Source : Marawola sub-district in figure, 2009

**40. IKK\_Sabang (Damsol), Damsol Sub-District, Donggala District  
Central Sulawesi Province ( B-35 )**

<b>General Profile</b>			
Province	:	Central Sulawesi	
District	:	Donggala	
Sub-District	:	Damsol	
Name of IKK	:	Sabang	
Name of SPAM-IKK	:	Donggala (Damsol)	
Distance from Capital of District	:	196 km	5 hours 0 minutes
Distance from Capital of Province	:	160 km	4 hours 0 minutes

**Profile of Kecamatan:**

Area (km <sup>2</sup> )	:	600.70		
Total Population	:	29,416	Male : 14,519	Female : 14,897
Population in labor force	:	n/a		
Population of children under 5 years-old	:	n/a		
Number of Household	:	6,002		
Average of household size	:	4.2		
Average monthly income of household unemployed	:	n/a		
Number of health post/support health post/ village health post	:	13 / 1 / 2		
Number of Primary/Junior High/ Senior High School	:	29 / 5 / 2		
Number of students of primary, junior and high School	:	1100 / 627 / n/a		
Primary industries	:	n/a		

**Piped water supply service in IKK :**

Status of SPAM-IKK:

- a. Separated (isolated) new distribution system  
 b. Connected to available system in Kecamatan  
 c. New source for supporting available piping system in capital of Kabupaten  
 d. Others

**40. Kecamatan : Damsol**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kambayang	41.47	183	914	463	451	
2	Budi Mukti	10.24	511	2,554	1,307	1,247	
3	Talagah	69.57	517	2,587	1,256	1,331	
4	Sabang	82.32	298	1,492	757	735	IKK
5	Sioyong	70.98	1,004	5,018	2,560	2,458	
6	Karya Mukti	10.23	904	4,522	2,244	2,278	
7	Papepanil	82.08	442	2,208	1,110	1,098	
8	Ponggerang	65.65	438	2,192	1,089	1,103	
9	Malonas	88.39	604	3,020	1,504	1,516	
10	Rerang	69.57	609	2,447	1,005	1,442	
11	Lembah Mukti	10.20	492	2,462	1,224	1,238	
	<b>Total</b>	<b>600.70</b>	<b>6,002</b>	<b>29,416</b>	<b>14,519</b>	<b>14,897</b>	<b>0</b>

Source : Damsol sub-district in figure, 2007

**41. IKK\_ Kawatuna, South Palu Sub-District, Palu City  
Central Sulawesi Province ( B-34 )**

<b>General Profile</b>							
Province	: Central Sulawesi						
District	: Palu						
Sub-District	: Palu Selatan						
Name of IKK	: Birobuli Utara						
Name of SPAM-IKK	: Kawatuna						
Distance from Capital of District	: 5 km                      0 hours                      20 minutes						
Distance from Capital of Province	: 5 km                      0 hours                      30 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 61.35						
Total Population	: 110,218                      Male : 54,603                      Female : 55,615						
Population in labor force	: 75,987						
Population of children under 5 years-old	: n/a						
Number of Household	: 24,277						
Average of household size	: 4.5						
Average monthly income of household unemployed	: 978,549						
Number of health post/support health post/ village health post	: n/a						
Number of Primary/Junior High/ Senior High School	: 5 / 8 /						
Number of students of primary, junior and high School	: 51 / 16 / 17						
Primary industries	: 13470 / 3696 / 5778						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>41. Kecamatan : Palu Selatan</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Palu Selatan	61.35	24,277	110,218	54,603	55,615	
	Total	61.35	24,277	110,218	54,603	55,615	0

Source : Palu city in figure, 2009

**42. IKK\_Patallassang, Patallassang Sub-District, Takalar District  
South Sulawesi Province ( A-7 )**

<b>General Profile</b>							
Province	:	South Sulawesi					
District	:	Takalar					
Sub-District	:	Patallassang					
Name of IKK	:	Patallassang					
Name of SPAM-IKK	:	Patallassang					
Distance from Capital of District	:	1 km	0 hours	2 minutes			
Distance from Capital of Province	:	40 km	0 hours	2 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	25.31					
Total Population	:	31,819	Male :	15,364	Female :	16,455	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	6,420					
Average of household size	:	n/a					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 / 2 / 30					
Number of Primary/Junior High/ Senior High School	:	18 / 2 / 2					
Number of students of primary, junior and high School	:	2678 / 365 / 74					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>42. Kecamatan : Patallassang</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Pattalasang	2.36	1,099				501
2	Palantikang	2.99	837				
3	Pappa	4.35	582				
4	Maradekaya	2.97	544				
5	Kalabbirang	3.52	788	31,819	15,364	16,455	
6	Sombalabella	2.87	1,145				
7	Bajeng	4.51	1,083				
8	Sabintang	1.74	342				
	<b>Total</b>	<b>25.31</b>	<b>6,420</b>	<b>31,819</b>	<b>15,364</b>	<b>16,455</b>	<b>501</b>

Source : Takalar district in figure, 2008

**43a. IKK\_Galesong Selatan, Galesong Selatan Sub-District, Takalar District  
South Sulawesi Province ( B-37 )**

<b>General Profile</b>			
Province	:	South Sulawesi	
District	:	Takalar	
Sub-District	:	Galesong Selatan	
Name of IKK	:	Bonto Kassi	
Name of SPAM-IKK	:	Galesong Selatan	
Distance from Capital of District	:	15 km	0 hours 25 minutes
Distance from Capital of Province	:	40 km	1 hours 15 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	24.71	
Total Population	:	23,544	Male : 10,750 Female : 11,577
Population in labor force	:	n/a	
Population of children under 5 years-old	:	25,025	
Number of Household	:	5,721	
Average of household size	:	4.0	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	8 village health post	
Number of Primary/Junior High/ Senior High School	:	22 / 2 / 2	
Number of students of primary, junior and high School	:	3524 / 856 / 477	
Primary industries	:	n/a	

<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input type="checkbox"/>	a. Separated (isolated) new distribution system
<input type="checkbox"/>	b. Connected to available system in Kecamatan
<input checked="" type="checkbox"/>	c. New source for supporting available piping system in capital of Kabupaten
<input type="checkbox"/>	d. Others

**43a. Kecamatan : Galesong Selatan**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Magindara	1.05	486	2,272			107
2	Desa Bontomarannu	3.95	829	3,077			39
3	Desa Bonto Kassi	3.91	691	2,759			10
4	Desa Bentang	4.36	893	3,963	10,750	11,577	2
5	Desa Bonto Kanang	3.46	941	3,658			155
6	Desa Popo	2.19	478	2,154			69
7	Desa Barammamase	2.24	826	3,077			
8	Desa Sawakong	3.55	577	2,584			
	<b>Total</b>	<b>24.71</b>	<b>5,721</b>	<b>23,544</b>	<b>10,750</b>	<b>11,577</b>	<b>382</b>

Source : Galesong Selatan sub-district in figure, 2009



**43b. IKK\_Galesong Selatan, Galesong Utara Sub-District, Takalar District  
South Sulawesi Province ( B-37 )**

<b>General Profile</b>							
Province	:	South Sulawesi					
District	:	Takalar					
Sub-District	:	Galesong Utara					
Name of IKK	:	Bonto Lebang					
Name of SPAM-IKK	:	Galesong Selatan					
Distance from Capital of District	:	15 km	0 hours	25 minutes			
Distance from Capital of Province	:	40 km	1 hours	15 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	15.31					
Total Population	:	38,468	Male :	14,980	Female :	16,157	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	4,024					
Number of Household	:	8,034					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	89 village health post					
Number of Primary/Junior High/ Senior High School	:	29 / 2 / 2					
Number of students of primary, junior and high School	:	4933 / 1366 / 1008					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>43b. Kecamatan : Galesong Utara</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Bontosunggu	0.77	1,077	4,487	2,303	2,488	
2	Tamasaju	1.33	1,150	9,791	2,289	2,474	
3	Bontolebang	3.80	1,144	4,763	3,016	3,259	IKK
4	Tamalate	1.42	1,507	6,275	1,911	2,065	148
5	Bontolanra	3.80	953	3,975	1,270	1,373	
6	Pakkabba	1.01	635	2,643	2,105	2,274	
7	Aeng Batu-batu	2.17	1,051	4,379	1,036	1,119	
8	Aeng Towa	1.01	517	2,155	1,050	1,105	
	<b>Total</b>	<b>15.31</b>	<b>8,034</b>	<b>38,468</b>	<b>14,980</b>	<b>16,157</b>	<b>148</b>

Source : Galesong Utara sub-district in figure, 2009

**43c. IKK\_Galesong Selatan, Galesong Sub-District, Takalar District  
South Sulawesi Province ( B-37 )**

<b>General Profile</b>							
Province	: South Sulawesi						
District	: Takalar						
Sub-District	: Galesong						
Name of IKK	: Galesong Kota						
Name of SPAM-IKK	: Galesong Selatan						
Distance from Capital of District	: 15 km                      0 hours                      25 minutes						
Distance from Capital of Province	: 40 km                      1 hours                      15 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 25.93						
Total Population	: 37,455                      Male : 18,077                      Female : 19,378						
Population in labor force	: n/a						
Population of children under 5 years-old	: 3,486						
Number of Household	: 9,020						
Average of household size	: 4.0						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: 9 village health post						
Number of Primary/Junior High/ Senior High School	: 31 / 5 / 2						
Number of students of primary, junior and high School	: 4683 / 1464 / 604						
Primary industries	: n/a						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>43c. Kecamatan : Galesong</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Galesong Baru	1.72	803	3,335	1,606	1,729	133
2	Galesong Kota	1.27	868	3,603	1,735	1,868	IKK
3	Boddia	3.57	953	3,959	1,906	2,053	51
4	Parangmata	1.95	698	2,897	1,395	1,502	
5	Bontoloe	3.65	912	3,788	1,824	1,964	
6	Bontomangape	1.70	1,040	4,318	2,079	2,239	
7	Parangbambe	2.74	714	2,965	1,428	1,537	
8	Pattunuang	1.25	326	1,353	670	683	
9	Kalenna Bontongape	1.44	375	1,558	773	785	
10	Pa'lalakkang	1.74	1,041	5,356	2,579	2,777	
11	Pa'rasangan Beru	4.90	1,290	4,323	2,082	2,241	
	<b>Total</b>	<b>25.93</b>	<b>9,020</b>	<b>37,455</b>	<b>18,077</b>	<b>19,378</b>	<b>184</b>

Source : Galesong sub-district in figure, 2009

**44. IKK\_Patallassang, Patallassang Sub-District, Gowa District  
South Sulawesi Province ( A-8 )**

<b>General Profile</b>			
Province	:	South Sulawesi	
District	:	Gowa	
Sub-District	:	Patallassang	
Name of IKK	:	Patallassang	
Name of SPAM-IKK	:	Patallassang	
Distance from Capital of District	:	4 km	0 hours          6 minutes
Distance from Capital of Province	:	11 km	0 hours          20 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	84.96	
Total Population	:	18,511	Male : 9,114      Female : 9,397
Population in labor force	:	n/a	
Population of children under 5 years-old	:	n/a	
Number of Household	:	3,840	
Average of household size	:	5.0	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	1 / 2 / 30	
Number of Primary/Junior High/ Senior High School	:	18 / 2 / 2	
Number of students of primary, junior and high School	:	2678 / 365 / 74	
Primary industries	:	n/a	

<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input type="checkbox"/>	a. Separated (isolated) new distribution system
<input type="checkbox"/>	b. Connected to available system in Kecamatan
<input checked="" type="checkbox"/>	c. New source for supporting available piping system in capital of Kabupaten
<input type="checkbox"/>	d. Others

**44. Kecamatan : Patallassang Gowa**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Timbuseng	11.88	735	3,712	1,803	1,909	} 763	IKK
2	Sunggumanai	4.83	327	1,662	827	835		
3	Pattalassang	13.54	591	2,798	1,402	1,396		
4	Pallantikan	12.04	536	2,522	1,294	1,228		
5	Paccellekang	13.67	555	2,648	1,231	1,417		
6	Borong Pa' lala	8.63	311	1,296	620	676		
7	Panaikang	7.67	420	1,887	917	970		
8	Jenemadinging	12.70	365	1,986	1,020	966		
<b>Total</b>		<b>84.96</b>	<b>3,840</b>	<b>18,511</b>	<b>9,114</b>	<b>9,397</b>	<b>763</b>	

Source : Patallassang sub-district in figure, 2007

**45a. IKK\_Parapa, Tamalatea Sub-District, Jeneponto District  
South Sulawesi Province ( B-36 )**

<b>General Profile</b>			
Province	:	South Sulawesi	
District	:	Jeneponto	
Sub-District	:	Tamalatea	
Name of IKK	:	Bonto Tangga	
Name of SPAM-IKK	:	Parapa	
Distance from Capital of District	:	5 km	0 hours 15 minutes
Distance from Capital of Province	:	90 km	2 hours 30 minutes

<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	57.58	
Total Population	:	39,103	Male : 18,925 Female : 20,113
Population in labor force	:	n/a	
Population of children under 5 years-old	:	3,952	
Number of Household	:	9,079	
Average of household size	:	4.0	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	8 village health post	
Number of Primary/Junior High/ Senior High School	:	30 / 10 / 6	
Number of students of primary, junior and high School	:	6517 / 1854 / 1537	
Primary industries	:	n/a	

<b>Piped water supply service in IKK :</b>	
Status of SPAM-IKK:	
<input type="checkbox"/>	a. Separated (isolated) new distribution system
<input type="checkbox"/>	b. Connected to available system in Kecamatan
<input checked="" type="checkbox"/>	c. New source for supporting available piping system in capital of Kabupaten
<input type="checkbox"/>	d. Others

45a. Kecamatan : Tamalatea								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Bontosunggu	4.37	858	3,254	1,559	1,695		
2	Bontojai	3.00	533	2,184	1,056	1,128	5,560	*)
3	Borongtala	6.13	808	3,736	1,840	1,896		
4	Turatea Timur	4.00	452	2,010	1,007	1,003		
5	Turatea	5.56	536	2,425	1,173	1,252		
6	Manjangloe	6.19	386	1,813	911	902		
7	Karelayu	3.10	342	2,315	1,084	1,231		
8	Bontotangnga	5.94	1,513	6,193	2,957	3,202		IKK
9	Tamanroya	1.69	693	2,743	1,291	1,432		
10	Tonrokassi Timur	4.38	1,005	4,247	2,077	2,170		
11	Tonrokassi	6.72	1,219	5,080	2,468	2,602		
12	Tonrokassi Barat	6.50	734	3,103	1,502	1,600		
Total		57.58	9,079	39,103	18,925	20,113	5,560	

Source : Tamalatea sub-district in figure, 2009

Note : \*) Total house connection 5560 including in Kecamatan Binamu, Arungkeke and Kecamatan Tamalatea

**45b. IKK\_Parapa, Arungkeke Sub-District, Jeneponto District  
South Sulawesi Province ( B-36 )**

<b>General Profile</b>							
Province	:	South Sulawesi					
District	:	Jeneponto					
Sub-District	:	Arungkeke					
Name of IKK	:	Tamanroya					
Name of SPAM-IKK	:	Parapa					
Distance from Capital of District	:	5 km	0 hours	15 minutes			
Distance from Capital of Province	:	90 km	2 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	29.91					
Total Population	:	17,713	Male :	8,528	Female :	9,185	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	1,688					
Number of Household	:	4,161					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	3 village health post					
Number of Primary/Junior High/ Senior High School	:	15 / 4 / 1					
Number of students of primary, junior and high School	:	2752 / 983 / 98					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>45b. Kecamatan : Arungkeke</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Kampala	3.94	515	2,108	1,038	1,070	
2	Bulo-bulo	4.82	579	2,384	1,104	1,280	5,560 *)
3	Palajau	3.72	727	3,094	1,515	1,579	
4	Kalumpang Loe	4.38	489	2,112	1,015	1,097	
5	Arungkeke	3.09	977	4,114	2,000	2,114	
6	Borong Lamu	7.23	428	1,850	861	989	
7	Arungkeke Pallantikang	2.73	446	2,051	995	1,056	
	<b>Total</b>	<b>29.91</b>	<b>4,161</b>	<b>17,713</b>	<b>8,528</b>	<b>9,185</b>	<b>5,560</b>

Source : Arungkeke sub-district in figure, 2009

Note : \*) Total house connection 5560 including in Kecamatan Binamu, Arungkeke and Kecamatan Tamalatea

**45c. IKK\_Parapa,Binamu Sub-District, Jeneponto District  
South Sulawesi Province ( B-36 )**

<b>General Profile</b>							
Province	:	South Sulawesi					
District	:	Jeneponto					
Sub-District	:	Binamu					
Name of IKK	:	Binamu					
Name of SPAM-IKK	:	Parapa					
Distance from Capital of District	:	5 km	0 hours	15 minutes			
Distance from Capital of Province	:	90 km	2 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	69.49					
Total Population	:	48,609	Male :	23,366	Female :	25,243	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	5,099					
Number of Household	:	10,568					
Average of household size	:	5.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 health post / 7 village health post					
Number of Primary/Junior High/ Senior High School	:	33 / 4 / 4					
Number of students of primary, junior and high School	:	8126 / 2556 / 2434					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>45c. Kecamatan : Binamu</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Pabiringa	2.91	1,277	5,679	2,700	2,979	} 5,560
2	Balang	4.02	958	4,425	2,125	2,300	
3	Empoang	9.45	1,547	6,896	3,287	3,609	
4	Sapanang	3.87	670	3,552	1,752	1,800	
5	Biringkassi	8.73	749	3,162	1,530	1,632	
6	Monro-monro	4.28	560	2,555	1,294	1,261	
7	Panaikang	3.14	443	2,084	1,000	1,084	
8	Balang Baru	5.04	678	3,214	1,562	1,652	
9	Balang Toa	2.63	899	4,045	1,918	2,127	
10	Empoang Utara	10.09	748	3,359	1,613	1,746	
11	Sidenre	3.19	635	2,996	1,391	1,605	
12	Empoang Selatan	8.01	919	4,046	1,940	2,106	
13	Bontoa	4.13	485	2,596	1,254	1,342	
<b>Total</b>		<b>69.49</b>	<b>10,568</b>	<b>48,609</b>	<b>23,366</b>	<b>25,243</b>	<b>5,560</b>

Source : Binamu sub-district in figure, 2009

Note : \*) Total house connection 5560 including in Kecamatan Binamu, Arungkeke and Kecamatan Tamalatea

**46. IKK Latambaga, Latambaga Sub-District, Kolaka District  
Southeast Sulawesi Province ( B-38 )**

<b>General Profile</b>							
Province	:	Southeast Sulawesi					
District	:	Kolaka					
Sub-District	:	Latambaga					
Name of IKK	:	Mangolo					
Name of SPAM-IKK	:	Latambaga					
Distance from Capital of District	:	5 km	0 hours	5 minutes			
Distance from Capital of Province	:	175 km	4 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	297.09					
Total Population	:	14,373	Male :	7,261	Female :	7,112	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	2,887					
Number of Household	:	5,810					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	1 / 5					
Number of Primary/Junior High/ Senior High School	:	15 / 2 / 1					
Number of students of primary, junior and high School	:	3173 / 869 / 346					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input checked="" type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>46. Kecamatan : Latambaga</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Induha	81.59	510	14,373	7,261	7,112	5,486
2	Ulunggolaka	83.80	673				
3	Mangolo	55.13	881				
4	Kolakaasih	71.97	1,562				
5	Sea	0.93	1,242				
6	Latambaga	0.67	465				
7	Sakuli	3.00	477				
Total		297.09	5,810	14,373	7,261	7,112	5,486

Source : Latambaga sub-district in figure, 2008

Note :

Total SR in IKK Latambaga = 5486

House connection in Kecamatan Kolaka (District capital) serviced by Kolaka Water Supply System but interconnected with IKK Latambaga system.

**47a. IKK\_ Air Madidi, Air Madidi Sub-District, Minahasa Utara District  
North Sulawesi Province ( B-39 )**

<b>General Profile</b>							
Province	:	North Sulawesi					
District	:	Minahasa Utara					
Sub-District	:	Air Madidi					
Name of IKK	:	Air Madidi					
Name of SPAM-IKK	:	Air Madidi					
Distance from Capital of District	:	15 km	0 hours	30 minutes			
Distance from Capital of Province	:	25 km	1 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	74.21					
Total Population	:	25,015	Male :	12,759	Female :	12,256	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	6,447					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	n/a					
Number of Primary/Junior High/ Senior High School	:	20 / 6 / 3					
Number of students of primary, junior and high School	:	3128 / 1297 / 1236					
Primary industries	:	30 large industries, 6 medium and 21 small industries					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>47a. Kecamatan : Air Madidi</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Tanggari	16.35	442	1,649	881	768	
2	Sampiri	10.95	328	1,225	575	650	
3	Sawangan	15.33	670	2,476	1,342	1,134	
4	Airmadidi Bawah	8.38	844	4,028	2,128	1,900	} 37 }
5	Airmadidi Atas	8.25	1,422	6,012	2,895	3,117	
6	Sarongsong I	0.75	855	3,222	1,601	1,621	
7	Sarongsong II	3.20	627	2,325	1,210	1,115	
8	Rap-Rap	3.00	357	944	479	465	
9	Sukur	8.00	902	3,134	1,648	1,486	
	<b>Total</b>	<b>74.21</b>	<b>6,447</b>	<b>25,015</b>	<b>12,759</b>	<b>12,256</b>	<b>37</b>

Source : Air Madidi sub-district in figure, 2008



**47b. IKK\_ Air Madidi, Dimembe Sub-District, Minahasa Utara District  
North Sulawesi Province ( B-39 )**

<b>General Profile</b>							
Province	: North Sulawesi						
District	: Minahasa Utara						
Sub-District	: Dimembe						
Name of IKK	: Dimembe						
Name of SPAM-IKK	: Air Madidi						
Distance from Capital of District	: 15 km                      0 hours                      30 minutes						
Distance from Capital of Province	: 25 km                      1 hours                      0 minutes						
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	: 156.80						
Total Population	: 21,000                      Male : 10,456                      Female : 10,378						
Population in labor force	: n/a						
Population of children under 5 years-old	: n/a						
Number of Household	: 6,653						
Average of household size	: 3.0						
Average monthly income of household unemployed	: n/a						
Number of health post/support health post/ village health post	: n/a						
Number of Primary/Junior High/ Senior High School	: 4						
Number of students of primary, junior and high School	: 2991 / 735 / 266						
Primary industries	: 8 large industries, 11 medium and 1 small industry						
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input type="checkbox"/> a. Separated (isolated) new distribution system <input checked="" type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>47b. Kecamatan : Dimembe</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Matungkas	17.10	723	2,493	1,246	1,247	227
2	Laikit	8.24	776	2,281	1,136	1,145	
3	Dimembe	17.59	558	1,980	898	899	47
4	Tetey	9.56	345	1,086	484	513	
5	Warukapas	16.50	826	2,322	1,327	1,121	20
6	Tatelu Satu	15.18	854	2,777	1,469	1,349	
7	Pinilih	13.57	356	1,176	660	639	
8	Klabat	17.59	650	2,021	1,031	1,041	
9	Tatelu Rondir	10.05	282	1,016	508	509	
10	Lumpias	15.97	496	1,318	589	639	
11	Wasian	15.45	787	2,530	1,108	1,276	
	<b>Total</b>	<b>156.80</b>	<b>6,653</b>	<b>21,000</b>	<b>10,456</b>	<b>10,378</b>	<b>294</b>

Source : Dimembe sub-district in figure, 2008

**48. IKK\_ Amurang, Amurang Barat Sub-District, Minahasa Utara District  
North Sulawesi Province ( B-40 )**

<b>General Profile</b>							
Province	:	North Sulawesi					
District	:	Minahasa					
Sub-District	:	Amurang Barat					
Name of IKK	:	Amurang					
Name of SPAM-IKK	:	Amurang					
Distance from Capital of District	:	10.4 km	0 hours	20 minutes			
Distance from Capital of Province	:	54 km	1 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	227.43					
Total Population	:	14,373	Male :	7,261	Female :	7,112	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	3,963					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	4					
Number of Primary/Junior High/ Senior High School	:	14 / 6 / 1					
Number of students of primary, junior and high School	:	n/a					
Primary industries	:	3					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>48. Kecamatan : Amurang Barat</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Pondos	7.50	309	1,073	537	536	
2	Elusan	0.33	289	1,043	544	499	
3	Tewasen	13.44	444	1,478	751	727	
4	Teep	26.00	412	1,609	810	799	105
5	Kapitu	14.00	532	2,006	957	1,049	115
6	Kawangkoan Bawah	17.16	771	2,913	1,494	1,419	
7	Rumoong Bawah	41.50	695	2,521	1,290	1,231	
8	Desa Rumoong Bawah	7.50	206	617	307	310	
9	Wakan	100.00	305	1,113	571	542	
	Total	227.43	3,963	14,373	7,261	7,112	220

Source :

**49a. IKK\_Suwawa, Suwawa Tengah Sub-District, Bone Bolango District  
Gorontalo Province ( B-41 )**

<b>General Profile</b>								
Province	:	Gorontalo						
District	:	Bone Bolango						
Sub-District	:	Suwawa Tengah						
Name of IKK	:	Douno						
Name of SPAM-IKK	:	Suwawa						
Distance from Capital of District	:	5 km	0 hours	30 minutes				
Distance from Capital of Province	:	15 km	0 hours	30 minutes				
<b>Profile of Kecamatan:</b>								
Area (km <sup>2</sup> )	:	64.69						
Total Population	:	4,999	Male :	2,527	Female :	2,472		
Population in labor force	:	n/a						
Population of children under 5 years-old	:	431						
Number of Household	:	1,237						
Average of household size	:	4.0						
Average monthly income of household unemployed	:	n/a						
Number of health post/support health post/ village health post	:	2 village health post						
Number of Primary/Junior High/ Senior High School	:	6 / 1 / 0						
Number of students of primary, junior and high School	:	722 / 155 / 0						
Primary industries	:	n/a						
<b>Piped water supply service in IKK :</b>								
Status of SPAM-IKK:								
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others								
<b>49a. Kecamatan : Suwawa Tengah</b>								
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Lompotoo	26.55	165	530	260	270		
2	Lombongo	21.77	200	1,619	833	786		
3	Duano	8.96	337	1,154	564	590	7	IKK
4	Tolomato	1.68	156	469	275	194		
5	Alale	3.66	289	922	437	485	12	
6	Tapadaa	2.07	90	305	158	147		
Total		64.69	1,237	4,999	2,527	2,472	19	

Source : Suwawa Tengah sub-district in figure, 2009

**49b. IKK\_Suwawa, Suwawa Selatan Sub-District, Bone Bolango District  
Gorontalo Province ( B-41 )**

<b>General Profile</b>			
Province	:	Gorontalo	
District	:	Bone Bolango	
Sub-District	:	Suwawa Selatan	
Name of IKK	:	Molintogupo	
Name of SPAM-IKK	:	Suwawa	
Distance from Capital of District	:	5 km	0 hours 30 minutes
Distance from Capital of Province	:	15 km	0 hours 30 minutes
<b>Profile of Kecamatan:</b>			
Area (km <sup>2</sup> )	:	184.09	
Total Population	:	4,466	Male : 2,284 Female : 2,182
Population in labor force	:	n/a	
Population of children under 5 years-old	:	505	
Number of Household	:	892	
Average of household size	:	4.0	
Average monthly income of household unemployed	:	n/a	
Number of health post/support health post/ village health post	:	3 village health post	
Number of Primary/Junior High/ Senior High School	:	5 / 2 / 0	
Number of students of primary, junior and high School	:	713 / 196 / 0	
Primary industries	:	n/a	
<b>Piped water supply service in IKK :</b>			
Status of SPAM-IKK:			
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others			

**49b. Kecamatan : Suwawa Selatan**

No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection	
1	Bulontala	22.02	132	660	330	330	20	
2	Libungo	20.51	80	402	202	200		IKK
3	Molintogupo	40.66	196	982	491	491	23	
4	Bonedaa	15.56	84	419	215	204		
5	Bondawuna	23.36	148	741	382	359		
6	Bulontala Timur	16.41	94	472	260	212		
7	Pancuran	20.47	52	262	137	125		
8	Bonda Raya	25.10	106	528	267	261		
	<b>Total</b>	<b>184.09</b>	<b>892</b>	<b>4,466</b>	<b>2,284</b>	<b>2,182</b>	<b>43</b>	

Source : Suwawa Selatan sub-district in figure, 2009

**49c. IKK\_Suwawa, Suwawa Sub-District, Bone Bolango District  
Gorontalo Province ( B-41 )**

<b>General Profile</b>							
Province	:	Gorontalo					
District	:	Bone Bolango					
Sub-District	:	Suwawa					
Name of IKK	:	Boludawa					
Name of SPAM-IKK	:	Suwawa					
Distance from Capital of District	:	5 km	0 hours	30 minutes			
Distance from Capital of Province	:	15 km	0 hours	30 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	33.51					
Total Population	:	9,999	Male :	4,987	Female :	5,012	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	n/a					
Number of Household	:	2,378					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	3 village health post					
Number of Primary/Junior High/ Senior High School	:	24 / 8 / 2					
Number of students of primary, junior and high School	:	1298 / 1147 / 962					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input checked="" type="checkbox"/> d. Others							
<b>49c. Kecamatan : Suwawa</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Boludawa	33.51	2,378	9,999	4,987	5,012	15
2	Tinggohubu						3
	Total	33.51	2,378	9,999	4,987	5,012	18

Source : Suwawa sub-district in figure, 2009

**50. IKK\_Kwandang, Kwandang Sub-District, Gorontalo Timur District  
Gorontalo Province ( B-42 )**

<b>General Profile</b>							
Province	:	Gorontalo					
District	:	Gorontalo Timur					
Sub-District	:	Kwandang					
Name of IKK	:	Molu'o					
Name of SPAM-IKK	:	Kwandang					
Distance from Capital of District	:	10 km	0 hours	15 minutes			
Distance from Capital of Province	:	60 km	1 hours	0 minutes			
<b>Profile of Kecamatan:</b>							
Area (km <sup>2</sup> )	:	332.80					
Total Population	:	34,648	Male :	17,282	Female :	17,366	
Population in labor force	:	n/a					
Population of children under 5 years-old	:	4,064					
Number of Household	:	9,058					
Average of household size	:	4.0					
Average monthly income of household unemployed	:	n/a					
Number of health post/support health post/ village health post	:	12 village health post					
Number of Primary/Junior High/ Senior High School	:	35 / 15 / 3					
Number of students of primary, junior and high School	:	5489 / 1860 / 982					
Primary industries	:	n/a					
<b>Piped water supply service in IKK :</b>							
Status of SPAM-IKK:							
<input checked="" type="checkbox"/> a. Separated (isolated) new distribution system <input type="checkbox"/> b. Connected to available system in Kecamatan <input type="checkbox"/> c. New source for supporting available piping system in capital of Kabupaten <input type="checkbox"/> d. Others							
<b>50. Kecamatan : Kwandang</b>							
No.	Name of Village	Area (Km <sup>2</sup> )	Number of HHs	Total Population	Male	Female	House Connection
1	Desa Bulalo	20.00	464	1,943			376
2	Desa Posso	6.00	492	1,708			55
3	Desa Titidu	19.00	727	2,550			106
4	Desa Moluo	15.40	1,166	4,466			33
5	Desa Pontolo	33.00	912	3,633			
6	Desa Molingkapoto	34.00	787	2,879			
7	Desa Mootinelo	12.00	369	1,344	17,282	17,366	
8	Desa Leboto	18.00	712	2,665			
9	Desa Bualemo	6.00	503	1,656			
10	Desa Dambalo	42.00	1,100	4,467			
11	Desa Molantadu	36.61	583	2,283			
12	Desa Tanjung Karang	67.39	350	1,496			
13	Desa Poneo	23.40	893	3,558			
	<b>Total</b>	<b>332.80</b>	<b>9,058</b>	<b>34,648</b>	<b>17,282</b>	<b>17,366</b>	<b>570</b>

Source : Bone Bolango district in figure, 2009

## APPENDIX 6 FILED REPORT OF 50 SPAM IKK

<i>A - 1</i>	<i>Sumbul</i>	<i>B - 22</i>	<i>Gemarang</i>
<i>A - 2</i>	<i>Kisaran</i>	<i>B - 23</i>	<i>Burneh</i>
<i>B - 1</i>	<i>Nagari Kota Sani</i>	<i>B - 24</i>	<i>Kepung</i>
<i>B - 2</i>	<i>Sumpahsan</i>	<i>B - 25</i>	<i>Selopamioro</i>
<i>B - 5</i>	<i>Tandun</i>	<i>B - 26</i>	<i>Gamping</i>
<i>B - 6</i>	<i>Inuman</i>	<i>A - 5</i>	<i>Jungkat</i>
<i>B - 7</i>	<i>Candi Muaro</i>	<i>A - 6</i>	<i>Sei Bulan</i>
<i>B - 8</i>	<i>Lubuk Ruso</i>	<i>B - 27</i>	<i>Sepaku</i>
<i>B - 3</i>	<i>Sungai Pinang</i>	<i>B - 28</i>	<i>Loa Janan</i>
<i>B - 4</i>	<i>Gelumbang</i>	<i>B - 29</i>	<i>Kertak Hanyar</i>
<i>B - 9</i>	<i>Way Lima</i>	<i>B - 30</i>	<i>Binuang</i>
<i>B - 10</i>	<i>Kotapadang</i>	<i>B - 31</i>	<i>Kareng Pangi</i>
<i>B - 11</i>	<i>Selupu Rejang &amp; Curup Timur</i>	<i>B - 32</i>	<i>Tumbang Talakan</i>
<i>B - 12</i>	<i>Cikande</i>	<i>B - 33</i>	<i>Binanga</i>
<i>B - 13</i>	<i>Garawangi</i>	<i>B - 35</i>	<i>Sabang</i>
<i>B - 14</i>	<i>Luragung</i>	<i>B - 34</i>	<i>Palu</i>
<i>B - 15</i>	<i>Ciwaringin</i>	<i>A - 7</i>	<i>Pattallassang</i>
<i>B - 16</i>	<i>Palasari</i>	<i>B - 37</i>	<i>Galesong Selatan</i>
<i>A - 3</i>	<i>Toroh</i>	<i>A - 8</i>	<i>Pattallassang</i>
<i>B - 18</i>	<i>Gubug</i>	<i>B - 36</i>	<i>Parapa</i>
<i>A - 4</i>	<i>Boja</i>	<i>B - 38</i>	<i>Lakambaga</i>
<i>B - 17</i>	<i>Sawit</i>	<i>B - 39</i>	<i>Air Madidi</i>
<i>B - 19</i>	<i>Sulang</i>	<i>B - 40</i>	<i>Amurang</i>
<i>B - 20</i>	<i>Bancar</i>	<i>B - 41</i>	<i>Suwawa</i>
<i>B - 21</i>	<i>Jenangan</i>	<i>B - 42</i>	<i>Kwandang</i>

<b>No. A-1</b>	<b>SPAM IKK: Sumbul</b>	Survey date : April 5 ~ 8, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Dairi	Dairi		North Sumatra	
Contact persons	Director and staffs	Staff	-	Staff	-

Water Source	Spring	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	1700

The following issues and probable causes found at on-site review of SPAM IKK:

- The facilities were constructed in a sanctuary forest area under management of Ministry of Forestry which required permission for the construction and operation; however, the permission has never been obtained yet. Therefore, the whole project implementation is sustained. The WTP (APBN portion) and distribution main pipeline (APBD portion) is unconnected.
- Moreover, the responsibility of connecting work is still undecided because of the lack of coordination between Provincial SatKer and District even if the environmental clearance is obtained.



<b>No. A-2</b>	<b>SPAM IKK: Kisaran</b>	Survey date : April 5 ~ 8, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Asahan	Asahan		North Sumatra	
Contact persons	Director and staffs	Staff	-	Staff	Head and staff

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	—	Number of House Connections	17,028

The following issues and probable causes found at on-site review of SPAM IKK:

- A deep well is constructed under APBN and connected to the existing distribution system consisting of several bore holes and surface water sources.
- Since the deep well constructed under the SPAM IKK project is connected to the existing distribution system covering Kisaran, there are no specific financial / managerial issues observed.

<b>No. B-1</b>	<b>SPAM IKK: Nagari Koto Sani</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Solok	Solok		West Sumatra	
	Director and staffs	Head and staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	20	Number of House Connections	3,359

The following issues and probable causes found at on-site review of SPAM IKK:

- There are four “nagari” (bigger than village, under Kecamatan, which means sub district) that need water supply in Kecamatan Koto Singkarak, namely 1) Nagari Saning Bakar, 2) Nagari Koto Sani, 3) Nagari Tanjung Bingkung and 4) Nagari Sumani. Three nagari had been supplied with clean water: Nagari Sumani, Nagari Saning Bakar and Nagari Koto Sani. At present, only Nagari Sumani could still obtain clean water from its system by taking 10 L/s raw water from spring water, which has now been decreasing to 5 L/s. The Nagari Saning Bakar system constructed in 1980, used to obtain 10 L/s raw water from spring water, however since 2000, the spring has dried out, so the distribution system cannot be operated as well as the Koto Sani system.

The initial plan was that the SPAM IKK will be built in Nagari Koto Sani using surface water from Babelok River to supply said four nagari. In 2005, PDAM proposed to Cipta Karya Province to conduct a detailed engineering design for the SPAM IKK plan. Based on the result of the detailed design, the raw water sources at Nagari Koto Sani were not enough to supply the demand of the four nagari. The other alternative considered was to utilize the surface water from Batang Tarusan River in Nagari Saning Bakar.

In 2006, the intake and raw transmission line, using 200 mm diameter, 420-m long GI pipe, was constructed under APBD I budget. Then in 2007, through the APBN province, the 4,000 m transmission GI pipe was constructed. In 2008, a WTP was constructed under the management of Central Satker.

The project of SPAM IKK, which includes intake, transmission and WTP, was completed by the end of 2008. However, the WTP could not be operated since the main distribution pipe was not finished until August 2009. Consequently, project commissioning

commenced a week after. However, operation started only after three months since the WTP operation was stopped by Saning Bakar people due to the reason that the given SPAM IKK name was Koto Sani even if the system is located in Saning Bakar area. Saning Bakar people complained to PDAM and Bupati regarding this matter. Bupati then issued a letter to change the name to SPAM IKK Saning Bakar in Satker Province. However, due to political reasons (new mayor's election June. 2009), the effectivity of the issuance was postponed for a while.

- The SPAM IKK is connected by a main distribution pipe to the existing systems of Saning Bakar, Sumani and Koto Sani and some other distribution pipe development. Because of social conflicts among nagari, the SPAM IKK has not initiated house connection at present. During the three months of operation, clean water was supplied to the Sumani distribution system.

<b>No. B-2</b>	<b>SPAM IKK: Sumpahan</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Sawahlunto	Sawahlunto		West Sumatra	
Contact persons	Director and staffs	Head and staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	1,482

The following issues and probable causes found at on-site review of SPAM IKK:

- The background of proposing SPAM IKK Sumpahan is to support the existing city system in Kecamatan Barangin, which obtains raw water from Ombilin River. The existing system with 60 L/s capacity was constructed in 2002 under an ADB loan,. The raw water is pumped from the intake (elevation +121 m) to the WTP (elevation +506 m). Since the system operation is very costly, especially the electrical cost for pump operation of about Rp 100 million a month, PDAM Sawahlunto requested Satker Province to carry out SPAM IKK at Kecamatan Barangin by taking raw water through gravity system from Batang Air Sumpahan (Sumpahan River) in 2007, with a capacity of 20 L/s
- The IKK Sumpahan operates for 24 hours only during the wet season since the capacity of raw water in Sumpahan River decreases during the dry season (operates with a capacity of about 5 L/s). Said IKK supports the existing system only for the wet season while on the dry season, the existing system may be fully operated.
- The distribution system for IKK Sumpahan is divided into two systems, namely, pumping and gravity.
- The elevation of the intake of Sumpahan is +367 m while that of the WTP is +353 m). Its raw transmission pipe (galvanized and PVC) has a length of 3900 m with diameter of 200 mm. Due to high pressure, the transmission pipe is frequently detached at its joints, which occurs at least twice a month. At the transmission pipeline, a pressure releasing basin is installed.

In the WTP operation, the raw water velocity to its units is uncontrolled. Hence, water

overtopping occurs in the coagulation tank while flocs are not formed at the flocculation tank. The raw water just passes the treatment units before reaching the reservoir (coagulator-flocculator-sedimentation-filtration-reservoir).

- The maintenance of the distribution pipe is very difficult due to the natural condition of Sawahlunto, which consists mainly of twisting roads and steep areas. Hence, many pipes are detached at the joints pipe. Within a month, the number of water leak repairs is about 84.
- There are three types of water payment systems applied by PDAM, namely, 1) contracted to third party (cooperative), where the cooperative gets 2.5% fee from the paid bill, 2) payment at the post office only for Muara Kalaban area, and 3) payment at PDAM locknet for Santur area (150 connections) and for people below the poverty level (147 connections).

<b>No. B-5</b>	<b>SPAM IKK: Tandun, Rokan Hulu</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Rokan Hulu	Rokan Hulu		Riau	
	Director and staff	Head and staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	5	Number of House Connections	292

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Tandun facilities, completed in 2007, consist of intake pump facilities, raw water conveyor pipe and steel-made WTP with a capacity of 5 L/s. The project also included installation of a distribution pipeline implemented using local budget.
- The original detailed engineering design proposal from the local government was intended for a WTP with capacity of 10 L/s. However, the approved capacity from the Central IKK was only for 5 L/s.
- The facility is still operated by BPAM under Dinas Cipta Karya Kabupaten Rokan Hulu. Therefore, the chemical required for the WTP operation, salary of staff and maintenance costs are still subsidized by Dinas Cipta Karya Kabupaten Rokan Hulu.
- General problems on the overall BPAM operation are:
  - Tariff rate of Rp 600/m<sup>3</sup> is very low since it is still subject to the Decree of Main Kabupaten (Bupati Kampar). Kabupaten Rokan Hulu was part of district development of Kabupaten Kampar and was separated in 2000.
  - Tariff adjustment was already proposed by Bupati and still under discussion with the local parliament (DPRD).
  - Improvement of water supply quality and supply is essential to gain community respect and confidence.
  - High rate of water loss (>30 %) is affected by pipe leakage and damages caused by road construction activity.
  - Required training for operator is necessary to maintain sustainable operation of the WTP facility.

<b>No. B-6</b>	<b>SPAM IKK: Inuman, Kuantan Singingi</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Kuantan Singingi	Kuantan Singingi		Riau	
	Director and staff	Staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	281

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Inuman facility was completed in December 2008, consisting of intake pump facilities, raw water conveyor pipe and cone clarifier type WTP with a total capacity of 2 units of 10 L/s. The project also included a distribution pipeline implemented in 2008 using local budget.
- The actual number of house connections is approximately 281. Hence, considering that the WTP total capacity is two units of 10 L/s, the plant is required to operate for only six hours per day, from 13:00 hours to 19:00 hours for one unit of 10 L/s capacity only. The operation time accommodates the local activity of most community residents.
- The facility is still operated by BPAM under Dinas Cipta Karya Kabupaten Kuantan Singingi. Therefore, the chemical required for the WTP operation, salary of staff and maintenance cost are still subsidized by Dinas Cipta Karya Kabupaten Kuantan Singingi.
- General problems for the overall BPAM operation are:
  - Tariff rate of Rp 600 per 0 – 10 m<sup>3</sup> consumption is very low since it is still subject to the Decree of Main Kabupaten (Bupati Kampar). Kabupaten Rokan Hulu was part of district development of Kabupaten Kampar and was separated in 2000.
  - Tariff adjustment was already proposed by Bupati and still under discussion with local parliament (DPRD).
  - Improvement of water quality and supply is essential to gain community respect and confidence subject for expanding the house connections.
  - High rate of water loss (>30 %) is affected by pipe leakages and damages caused by

road construction activity.

- Required training for operator is necessary to maintain sustainable operation of the WTP facility.



<b>No. B-7</b>	<b>SPAM IKK: Candi Muaro</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Muaro Jambi	Muaro Jambi		Jambi	
	Director and staff	Staff	Head	Head and staff	-

Water Source	River water	Water Treatment	—
System Capacity (L/s)	—	Number of House Connections	99

The following issues and probable causes found at on-site review of SPAM IKK:

- Basically, the project was not implemented under the name of SPAM IKK Project but as PPAB Project (Water Supply & Water Management Project) under the management of the provincial Satker.
- When it was handed over to PDAM at the end of 2005, no house connection was implemented yet. Then, using the local budget (APBD II), the distribution pipeline was installed. Presently, there are 99 house connections for Desa Candi Muaro Jambi, which basically aims to serve the area surrounding the temple (heritage) site for tourism purposes including the nearby community residents.
- Water fee is around Rp. 27,000/month. Most of the communities are farmers and fishermen. About 70% of the users are paying their bills on schedule, while 30% pay only every two to three months.
- Operation and maintenance of treatment facilities: Since last year, the dosing pumps were broken. Moreover, due to the limited budget for maintenance, the chemical inputs were done manually. The distribution pump, which is designed for 5 L/s WTP, were replaced with 10 L/s capacity distribution pipe since last year using the local budget. Hence, the electricity cost increased to 40-50% (present average is Rp. 1.4 million) of the cost using the previous pump (average of around Rp. 900 thousand)
- There are no tables and desks in the operator's rooms and hence, the operator cannot work properly. According to PDAM's Director, they do not have enough budget at present to purchase such equipment.
- Financial problem: It is noted that there is limited income while operation cost is considerable. All of the chemical inputs are supplied by PDAM head office. Even the

electricity cost is now around Rp. 1.4 million/month (60% of the production cost), while average revenue is around Rp. 2.4 million/month. However, since the electricity cost is subsidized by the local government, there is no problem for them to use pumps with big capacity, although it is cost-inefficient since the capacity of the WTP is only 5 L/s and operates for only two hours per day.

<b>No. B-8</b>	<b>SPAM IKK: Lubuk Ruso</b>	Survey date : Apr. 26 ~ 30, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Batang Hari	Batang Hari		Jambi	
	Director and staffs	Head	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	5	Number of House Connections	90

The following issues and probable causes found at on-site review of SPAM IKK:

- Basically the project was implemented under the name of SPAM IKK Project 2007 under the management of the central Satker. The proposal from PDAM was collected by provincial Dinas and submitted to the central Satker. Then, due to limitation of SPAM IKK budget, through the letter from Ir. Irman Djaya M. Eng (Head of SPAM IKK Development/Central Satker) dated 26 September 2007, the central Satker requested the head of the provincial Satker for allocation of budget to support the central Satker. Hence, the intake, WTP, distribution pump and dosing pump, and procurement of laboratory equipment such as jar test, scale, etc. were implemented with the budget of the central Satker. Meanwhile, for installation of distribution pipe (6 km of Ø 150 mm pipe and 200 m of Ø 50 mm pipe), construction of reservoir (100 m<sup>3</sup> capacity), sludge drying bed, operation room, office, generator set and pump house were initiated using the provincial Satker's budget (APBN Murni). For the house connections (90 HC), these were done using local budget (APBD II).
- Basically, the facilities and equipment provided through the central Satker's budget are running and maintained well, except for the jar test and other simple test equipment which are not being used, since the operator has not undergone training regarding their use.
- The SPAM IKK started its operation in August 2008.
- Actually, the demand to increase the connection is high in this area (around 600 requests have been submitted to PDAM office), but since the distribution pipe installed under the project is limited, and there is no budget after the project was handed over to this SPAM IKK, there were no increase in connections after the project completion. Among the 90 HC, only 74 are active. The remaining HC were cut off due to the customers' unpaid bills.

- Water fee collection: The bill is around Rp. 23,000/month. Most of the workers in the communities are farmers. About 90% of the users are paying their bills on time, meanwhile 30% pay every two to three months.
- Operation and maintenance of treatment facilities: the dosing pumps, distribution pump, and generator sets are maintained well. The SPAM IKK operates around 3-4 hours/day with only one operator/staff which is also tasked to collect the bills of the customers served by the SPAM IKK.
- Financial problem: The problem of this SPAM IKK is mostly due to its lack of capacity to expand HC as its budget for installing more distribution pipes is limited, despite the high demand in the area.

<b>No. B-3</b>	<b>SPAM IKK: Tanjung Kerang</b>	Survey date : Apr. 19 ~ 23, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Banyuasin	Banyuasin		South Sumatra	
	Director and staffs	Head and staff	-	Head and staff	Secretary and staff

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	10	Number of House Connections	77

The following issues and probable causes found at on-site review of SPAM IKK:

- Kabupaten Banyuasin was separated from Kabupaten Musi Banyuasin in 2002. In 2005, the new Kabupaten Banyuasin established PDAM. SPAM IKK Sungai Pinang is located in Kecamatan Rambutan, as well as SPAM IKK Tanjung Kerang. In 2005, SPAM IKK Sungai Pinang was budgeted by APBD Kabupaten while SPAM IKK Tanjung Kerang was budgeted under APBN Pusat in 2007. Actually, SPAM IKK Tanjung Kerang is the scope of evaluation of the JICA Study Team since the IKK is listed in Satker Pusat and it uses APBN budget. The project components of SPAM IKK Tanjung Kerang came from three budget sources: 1) APBN Pusat through Satker Pusat (intake, WTP, dosing house, generator, pumps and road inside WTP); 2) APBN Province through Satker Province (generator room, guard room, reservoir, fence); and APBD Kabupaten for the distribution pipe. This SPAM IKK is called Tanjung Kerang because its raw water and WTP location is in Tanjung Kerang village and not in Rambutan village, which is the capital of Kecamatan.

SPAM IKK Tanjung Kerang is a green field system that is planned to serve six villages: Rambutan, Tanjung Kerang, Durian Gadis, Suka Pindah, Pelaju and Tanah Lembak. Currently, the IKK has 110 house connections out of 5,000 target connections with 20 lps. The number of connections is still limited since there is no available distribution network yet due to lack of local budget allocation.

Six months ago, the combined flocculator and sedimentation tank cannot be operated since these were damaged due to the distant spacing between joint fibers at the tank. Hence, leakage has occurred. The situation was reported to Satker Pusat to implement repairs. Although operation of the WTP continues without flocculation and sedimentation,

water flows directly to the rapid sand filter tank through the installed temporary pipe, after injection of coagulants. Thus, the treated water has poor quality. The people however do not complain since the water surrounding their homes has poorer quality compared with the PDAM treated water. PDAM does not have water quality data for both raw water and treated water. The quantity of the coagulant it injects is based on usual experience and visual inspection of the water turbidity.

- Water fee collection rate is 100% a year. This is attributed to the fact that the customers worry that they will be disconnected if their payment is delayed for a month. This implies the residents' significant needs for water
- The WTP operates for four to six hours a day due to the small number of connections.

<b>No. B-4</b>	<b>SPAM IKK: Gelumbang</b>	Survey date : Apr. 19 ~ 23, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Muara Enim Director and staffs	Muara Enim Staffs	Muara Enim Staffs	South Sumatra Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	77

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Gelumbang covers three kecamatan, namely, Sungai Rotan, Gelumbang and Kelekar. Hence, it was actually named as SPAM IKK Sungai Rotan-Gelumbang-Kelekar (hereinafter referred to SPAM IKK Gelumbang). The reason of Kabupaten in constructing IKK Gelumbang is to serve the three kecamatan using raw water from the surface water of Lematang River in Kecamatan Sungai Rotan. Said river is a stable source during both dry and rainy seasons. The WTP capacity built is 60 L/s, (2 units of 30 L/s each). Currently, the number of house connections is 81. Thus, since the number of connections is small, its operation time is only 2-4 hours daily. The reason for the limited number of connections is that construction of the main connecting distribution pipe from Sungai Rotan to Gelumbang (32 km) and Gelumbang to Kelekar (7 km) has not been completed yet. The constructed main pipe is about 15 km in Sungai Rotan area. However, the local government (Kabupaten Muaraenim) is highly committed to build the distribution pipe, by regularly allocating budget for IKK Gelumbang. According to the Director of PDAM Muaraenim, the distribution pipe for Gelumbang is planned to be completed in 2012.
- Electrical operational cost of IKK Gelumbang reaches Rp. 12 million a month, which is spent for pumping operations and remuneration for seven IKK staff costing Rp. 2 million. Meanwhile, the water fee revenue is only about Rp. 1.9 million since customers just pay for the minimum consumption (0-10 m<sup>3</sup>) costing around Rp. 23,500 per connection. The high operation cost is covered by PDAM Muaraenim which gets local government support. During the discussion with Bappeda, PU Cipta Karya Province and PDAM, they mentioned that the local government commits to support PDAM for their water supply until the service area coverage reaches 80% of the total population. It is noted meanwhile

that the total population coverage served in Muaraenim is 37.58% as of end of 2009.

- Water fee collection rate is 100% a year, as the customers only delay their payment for one month.
- Turbidity data for raw water and treated water are not tested by IKK staff. Said staff just followed the verbal instructions given during the commissioning of the project without any written guidelines. Coagulant dose is put based on raw water turbidity, which is visually identified by the operators.



<b>No. B-9</b>	<b>SPAM IKK: Way Lima</b>	Survey date : Apr. 19 ~ 23, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Lampung Selatan	Lampung Selatan		Lampung	
	Director and staffs	-	-	Staffs	Staffs

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	511

The following issues and probable causes found at on-site review of SPAM IKK:

- Due to the decentralization, many district have been established lately. One of the new District in Lampung Province is District Pesawaran, which was established in 2008. Since it separated from district Lampung Selatan, the IKK Way Lima is now under its administration. Consequently, the unit of PDAM in IKK Way Lima shall be handed over to the management of PDAM Pesawaran, which is still under discussion, while waiting for the selection of the new Bupati of district Pesawaran in June 2010.
- Basically, the location of the intake and WTP is in district Gedong Tataan, not district Way Lima. Moreover, there were some complaints from P3A (farmers' water user association) during the dry season, since they also use the same river source for their land.
- The house connections were decreasing each year. When it started operation, total house connection was 612. Presently however, now only 511 remain active. This is due to the low affordability of the community to pay, and considering that the community could also obtain water from other resources such as river and shallow well. Although PDAM has decided to impose minimum payment (flat payment), still only around 27% of the customers pay on time. Most of them pay bills only every three months once they earn money.
- Water fee collection: The water bill is Rp. 29,000/month. Most of the workers in the communities are laborers of a rubber plantation belonging to a state-owned enterprise (PTPN VII). Their average income is around Rp. 1,000,000/month.
- Operation and maintenance of treatment facilities: There are no data on turbidity, pH, and color are available since necessary test equipment are not available in the laboratory of IKK Way Lima. According to the operators, they saw such equipment during the

commissioning but after that, it was no longer found in the laboratory. Jar test is available, but, they are not being used. Dosing is conducted manually based merely on the discretion of the operator. Therefore, the pump and generator set is not being used. Since the affordability of the community is one of the issues, PDAM unit of IKK Way Lima could not afford the use of such equipment as it will add cost to the production. It is noted that up to now, staff salaries (six persons) are subsidized by the PDAM head office.

- The facilities constructed under the project such as operator rooms and laboratory, are not being used. The operators and other staff in IKK Way Lima unit are stationed in another office (around 1 km toward the intake area). The design for the use of the dosing pump is useless since it can basically be operated by gravity.
- Financial problem: Small income and costly operation expenses. All of the chemical inputs are supplied by PDAM head office.

<b>No. B-10</b>	<b>SPAM IKK: Kota Padang, Rejang Lebong</b>	Survey date : Apr. 19 ~ 23, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Rejang Lebong	Rejang Lebong		Bengkulu	
Contact persons	Director and staffs	Head and staff	Head and staff	Staffs	Head

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	No Data

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Kota Padang facilities were completed in December 2008, while the installation of the main distribution pipe toward its sub-district was just completed in 2009 through the district's local budget (APBD). Therefore, the plant is still not operational during the survey conducted.
- The project consists of the intake, collector tank, raw water conveyor pipe and steel-made WTP with a capacity of two units at 10 L/s each. The WTP was designed to supply 10 L/s to Kota Padang sub-district by gravity system, and another 10 L/s for the newly developed sub-district, Sindang Belity Ulu, using pumps.
- The main distribution pipe to Kota Padang was already installed completely using the district's local budget (APBD). Meanwhile, the installation of distribution pipe to Sindang Belity Ulu is not decided yet.
- The current activity of PDAM Rejang Lebong for this SPAM IKK involves preparing staff in managing the plant. Said activity was scheduled to mobilize by May 2010, including the promotion for new house connections. The WTP is planned to be operational within this year.
- The general problem for the overall PDAM operation is the execution of required training for the operator to ensure sustainable operation of the WTP facility.

<b>No. B-11</b>	<b>SPAM IKK: Selupu Rejang &amp; Curup Timur</b>	Survey date : Apr. 19 ~ 23, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Rejang Lebong	Rejang Lebong		Bengkulu	
Contact persons	Director and staffs	Head and staffs	Staff	Staffs	Head

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	50	Number of House Connections	3,596

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Selupu Rejang facilities for Curup Timur sub-district were completed in June 2008. The project consists of intake weir, collector tank, raw water conveyor pipe and steel-made WTP with a capacity of 50 L/s.
- Water from the WTP at Selupu Rejang sub-district (known as SPAM IKK Selupu Rejang) is transmitted by pipe to the PDAM Rejang Lebong main reservoir (cap 880 M3 x 2 units), and distributed mainly to Curup Timur and Curup Kota sub-districts.
- The SPAM IKK Selupu Rejang WTP capacity of 50 L/s became the major component of interconnection to the water supply system, and is the only treatment plant that uses raw river water taken from Musi Kejalo River. All the other existing water sources are spring water from namely, Air Bulak (17 L/s capacity), Suban Ayam (22 L/s capacity), Air Meles Bawah (21 L/s capacity), Air Meles Atas (1.8 L/s capacity), Suban Air Panas (5.75 L/s capacity) and Suban Ayam Terminal (1 L/s capacity). Collected water from these sources is transmitted to the main reservoir of PDAM Rejang Lebong. Recently, it appears that the capacity of most spring water tends to decrease.
- The water supply of PDAM Rejang Lebong from raw water transmission and distribution system are all operated by gravity system.
- The general problems for the overall PDAM operation are:
  - Expansion of house connections of all sub-districts to maximize the utilization of the available clean water (treated and non-treated).
  - Required training for operator to ensure sustainable operation of the WTP facility.

<b>No. B-12</b>	<b>SPAM IKK: Cikande</b>	Survey date : May 31 ~ June 1, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Serang	Serang		Banten	
Contact persons	Staffs	-	-	Head and staff	-

Water Source	Canal	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	2,688

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Cikande was proposed to extend the coverage area of PDAM in serving the water supply for domestic use. Initially, PDAM had an agreement with PT. Sarana Tirta Rezeki (STR), a private company that served the water supply for the industries in the Cikande area. PDAM Serang got 15% of water production of PT. STR to be distributed for domestic use. PDAM purchases water from PT. STR for Rp. 900/m<sup>3</sup>. Since there are more than 2,000 households in this area, the SPAM IKK Cikande was then proposed.
- Currently, there are two WTPs in the designated locations for SPAM IKK Cikande (cap. 20 L/s). The other WTP with a capacity of 20 L/s was also constructed under the SPAM IKK project financed by central Satker budget in FY 2009, which was allocated for SPAM IKK Kibin. Both systems are interconnected. Besides these two systems, PDAM is also distributing 15% of water produced by PT. STR in these areas (District Cikande and District. Kibin).
- The intake for SPAM IKK Cikande is using the water from the Pamarayan Timur Irrigation Channel (near the WTP), while the intake for SPAM IKK Kibin is from the Cijung River. However, the intake from the Cijung River is basically used during the dry season. Raw water turbidity is high and in some parts are contaminated with wastewater (domestic or from industry). Hence, the water in the reservoir still contains some flocs.
- The SPAM IKK Cikande is located around 20 km from the city of District Serang. It serves two villages in this District Cikande with 495 HC, and four villages in District Kibin with around 3,290 HC (including the water supplied by PT. STR). It operates 24 hours/day.
- Basically, the facilities and equipment provided through the central Satker budget are still

working and in good conditions. However, due to the limitation of water resources and treatment units, the provincial Satker intends to utilize the budget of APBN Murni in FY 2010 to construct one SPAM IKK Careng WTP with a capacity of 50 L/s. Its location shall be near the Cikande and Kibin WTPs.

- PDAM got the assistance in 2009 in the form of capital from the local government, amounting to around Rp.2 billion/year. This budget is basically used for financing new house connections to expand its coverage area.
- Water fee collection: the bills range from Rp. 42,000/month to Rp. 48,000/month. For collections of the payment, aside from the “loket” in the PDAM office or unit offices, PDAM also made cooperation agreements with Bank Jabar and PT. Pos Indonesia.
- Operation and maintenance of treatment facilities: the dosing pumps, distribution pumps and generator sets are maintained well.
- Financial problem: In this area, there are around 20,000 requests for house connection in the waiting list. Moreover, PDAM Serang still needs a WTP with around 150 L/s capacity. Consequently, the provincial Satker shall construct this year a new SPAM IKK Caringang WTP with a capacity of 50 L/s.

No.	<b>B-13</b> <b>B-14</b>	<b>SPAM IKK: Garawangi</b> <b>Luragung</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Kuningan	Kuningan		West Java	
Contact persons	Director and staffs	Head and staff	Staff	Staffs	-

Water Source	Spring	Water Treatment	—
System Capacity (L/s)	—	Number of House Connections	1,032 1,496

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK project for Garawangi and Luragung was completed in December 2008.
- The project consists of only raw water conveyor pipe of approximately 9,300 m in length, from the water source at Darmaloka spring with 80 L/s capacity through gravity system, to a reservoir capacity of 1,200 m<sup>3</sup>. Distribution of the non-treated water from the reservoir also adopts the gravity system. The intake facilities were constructed through other project schemes.
- The system was interconnected and supplies water to the existing service network consisting of five sub-districts namely, Meleber, Garawangi, Sindang Agung, Lebakwangi and Luragung. Therefore, no local budget sharing was involved for new housing connections under this project.
- Surplus water resources exist considering the water resource capacity of 80 L/s as compared with that required for the total 2,528 connections in the five sub-districts.
- The general problems for the overall PDAM system are:
  - Considering the surplus water capacity, PDAM focuses on expanding new housing connections and preserving the capacity of existing spring water resources.
  - Decreasing water losses by minimizing pipe leakages attributed to the deterioration of existing old pipe networks, and by replacing house meters.

<b>No. B-15</b>	<b>SPAM IKK: Cirebon</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Cirebon	Cirebon	Cirebon	West Java	West Java
	Staffs	-	-	Staffs	Staffs

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	0

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Ciwaringin was built through SPAM IKK project scheme and completed in December 2008. However, this plant was never actually operated since there are no constructed pipe distribution networks for house connection.
- The facilities consist of intake structure, raw water conveyor pipe, WTP with capacity of 20 L/s, and reservoir with capacity of 300 m<sup>3</sup>.
- There were no local budget contributions for SPAM IKK project since 2007 to 2010. Even when it was already proposed under RPIJM, such budget was never actually realized to date including SPAM IKK Ciwaringin.
- The WTP plant only operates occasionally such as during request from Bupati or other local government event.
- The local custom, specifically on Babakan Village which is the location of approximately 45 schools for Islamic studies (Pesantren) and with population of around 7,000, insists that water supply should be provided freely under the local government's responsibility.
- The plan of PDAM to install and expand new house connections to other villages within the sub-districts other than Pesantren area is already proposed for implementation in 2010. However, there is no further action taken to date by local government to follow up on this proposal.
- General problems for overall PDAM system are:
  - Most of the potential water resources are located in the other administrative area such as at District Kuningan.
  - High rate of pipe leakage due to deterioration of existing old pipe networks.
  - Decreasing tendency of the capacity of the existing spring at District Cirebon



during the last view year.

- High operation cost for WTP, which is mostly applying pumping system generated using either electric power from commercial grid or diesel engine.

<b>No. B-16</b>	<b>SPAM IKK: Palasari</b>	Survey date : May 31, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Bogor	Bogor		West Java	
	Staffs	-	-	Staffs	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	122

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Palasari was completed and handed over for operation in December 2008. The project consists of intake (well and broncaptering), raw water conveyor pipe, WTP facilities and reservoir. The treatment plant is located in Palasari Village (Desa Palasari), which is under the administrative area of District Bogor.
- SPAM IKK facilities were designed using two systems, which are gravity and pumped, with two water sources, namely, spring broncaptering (30L/s) and river (20L/s). Treatment plant utilizes river water source while the spring water is directly distributed after adding disinfectant.
- The present actual capacity of spring is only 17 L/s out of the designed capacity of 30 L/s because spring water flow spreads outside the broncaptering structure and not fully collected. PDAM is now reviewing the possible countermeasure to maximize the spring capacity.
- Concerning present new housing connection, which is still low (122 connections), and minimizing operation cost, the operation of plant facilities is managed as follows:
  - From June 2009, 24-hour continuous distribution for spring water using gravity system for Kelurahan Pamoyanan, and
  - From February 2010, WTP facilities operate 6 hours per day, 2 hours each in the morning (05:00 – 07:00), noon (12:00 – 14:00) and night (17:00 – 19:00), and distribute water using pump system toward Palasari Village, which is located higher than the WTP elevation.
- General problems for overall PDAM system are:
  - Maximizing the available water capacity by expanding new housing connections.

- Decreasing water loss by minimizing pipe leakage due to deterioration of existing old pipe networks and replacement of house meters

<b>No. A-3</b>	<b>SPAM IKK: Toroh</b>	Survey date : March 15 ~ 19, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Grobogan	Grobogan		Central Java	
Contact persons	Director and staffs	Staff	Staff	Head and staffs	Head and staffs

Water Source	River water	Water Treatment	SSF WTP Concrete
System Capacity (L/s)	10	Number of House Connections	655

The following issues and probable causes found at on-site review of SPAM IKK:

- The project component of APBN is intake and treatment facilities and transmission pipeline. The new system was connected to the existing system which had not been operated since the original water source was dried up. The new system applies the slow sand filter which does not properly function; thus the treated water has high turbidity and consumers do not use it as potable water.
- Connected customers currently account for 647 households. Grobogan PDAM outsources the water tariff collection to women's group of the community with 1.5% commission payment. Current tariff collection rate is over 80%. PDAM renews water meters in every four years.

<b>No. B-18</b>	<b>SPAM IKK: Gubug</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Grobogan	Grobogan		Central Java	
Contact persons	Director and staffs	Staff	Staff	Head and staffs	Head and staffs

Water Source	Canal	Water Treatment	RSF WTP Steel
System Capacity (L/s)	5	Number of House Connections	45

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Gubug was designed for supplying Gubug Village. The SPAM was constructed in 2008. The raw water is taken from Klambu-Kudu irrigation canal with submersible pump. The irrigation canal also serves as raw water for Semarang City. The raw water taking permission is issued to Dinas Water Resources and raw water fee is Rp. 22.5/m<sup>3</sup> of water sold. The fee for the permission extension is Rp. 500.000 per year. Land for water treatment plant and other utilities is rented by PDAM from village and the land fee rental is Rp. 500,000 per year. Dinas Water Resources has allocated 40 L/s of raw water for PDAM from the irrigation canal. PDAM plans to develop water supply system for Sawit's next neighbor, Kecamatan.
- SPAM IKK Gubug was implemented through staged construction, i.e., intake, transmission pipe and WTP were constructed in 2007 through APBN (Satker Pusat) while main distribution pipe and connecting distribution pipelines were constructed in 2008 through District budget. Operation of the SPAM IKK system started in the beginning of 2009.
- At present, operation time of WTP is 4 to 5 hours a day since the number of house connections at housing complex is still only 45. PDAM has difficulty extending distribution pipeline due to lack of budget from local government. The priority of local government through local investment to PDAM is PDAM's debt payment. Total debt of PDAM is Rp. 4.7 billion. Thus, extension of distribution pipeline for the SPAM IKK is postponed at the moment.

- Water quality test is not available for either raw water or treated water. Determination of coagulant dosage was obtained from the steel supplier of the WTP package during commissioning test. Dosage application is based on visual monitoring of turbid raw water. There is no manual for operation and maintenance of WTP. All operation and maintenance activities are based on the explanation of the supplier during the commissioning test.
- Water fee collection rate is 100% a year. In terms of monthly payments, some customers are usually delayed for just one month. After that, the customer pays all water fees including penalty fee during the succeeding month.
- Electricity cost for WTP operation is Rp. 2.5 million per month and water revenue per month is about Rp. 2-2.4 million.

<b>No. A-4</b>	<b>SPAM IKK: Boja</b>	Survey date : March 15 ~ 19, 2010
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Responsible local agencies	PDAM/BLU  Kendal	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Director and staffs	Staff	Staff	Head and staffs	Head and staffs

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	10	Number of House Connections	2,209

The following issues and probable causes found at on-site review of SPAM IKK:

- A deep well was constructed by APBN under the project and supposed to be connected to the existing system, but the water quality was not good for drinking so that Kendal PDAM had to install iron-removal equipment at its own expense in 2008.
- Kendal PDAM is capable enough to operate and manage the constructed facilities including the remedial measures mentioned above. In metering / billing process, PDAM staff visit each household and record the metering results which kept by both PDAM and each customer. Connected customers are 2,239 and the tariff collection rate is over 90%.

<b>No. B-17</b>	<b>SPAM IKK: Sawit</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Bojolali	Bojolali	-	Head and staff	-

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	10	Number of House Connections	123

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Sawit was constructed in 2005 with capacity of 10 L/s. The idea for constructing SPAM IKK Sawit came from residents of Karang Duren Village who did not benefit from their previous proposal submitted to the Ministry of Health (MOH). At that time, the proposal of Karang Duren was actually approved by MOH. During construction, however, nearby residents tapped to the transmission pipeline, and hence, Karang Duren people did not benefit from the supply. Based on this situation, PDAM Boyolali proposed SPAM IKK Sawit to supply Karang Duren Village, Karang Rejo Village and Sambong housing area at Banyudono. The proposal mentioned a target of 400 house connections at Karang Duren and Karang Rejo (175 connections) and Sambong housing (225 connections). Unfortunately, during construction of IKK Sawit, Sambong housing has been serviced by PDAM Sukoharjo because the location of the housing is near Sukoharjo. Thus, at present, the number of house connections is 129.
- SPAM IKK Sawit utilizes a deep well that directly supplies to customers. Operation time of IKK Sawit is limited for only 3 hours a day (morning time, day time and night time). Distribution to customers cannot be executed for 24 hours a day since the distribution pipes were not designed to accommodate such operation and may eventually cause many leakages along pipe. PDAM pays a fee of Rp. 10/m<sup>3</sup> of water sold for taking water from deep well.
- People who are not connected to PDAM usually use shallow wells. However, the quality of the well contains high Ferro (Fe). Nevertheless, they are willing to connect to PDAM



as long as service is for 24 hours.

- Water fee collection rate is 100% a year. Monthly water collection rate is 97%. Customers who pay late by a month are charged with penalty fees.
- PDAM officer said that the water quality test is conducted once every 3 months. However, since there is no evidence of such test, water quality was not as certain .
- PDAM has development plan for improving SPAM IKK Sawit services. PDAM intends to propose construction of elevated reservoir to keep water and distribute to customer by gravity system, and extend house connection to 400 to 500 units.
- PDAM has no problem with regards to operation cost at SPAM IKK Sawit.

<b>No. B-19</b>	<b>SPAM IKK: Sulang</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Rembang	Rembang		Central Java	
	Director and staffs	Staff	Staff	Head and staff	-

Water Source	Lake	Water Treatment	RSF WTP FRP
System Capacity (L/s)	10	Number of House Connections	594

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Sulang was constructed in 2007. The system is connected to the existing system that was built in 1981 under the Ministry of Health. At present, the existing system has three water sources, namely: spring water at Taban Bulu (3-4 L/s), Pasedan Bulu (3 L/s) and deep well at Kediadu Village (2 L/s). These existing water sources are not enough to supply Sulang Sub-district which has about 850 house connections. Only 250 house connections can be supplied by these three water sources. During the dry season, the three water sources cannot be operated at full capacity. Sometimes, there is no water so the existence of SPAM IKK Sulang can activate the existing 600 house connections.
- SPAM IKK Sulang takes raw water from a small storage (Embung Sambongan) at Jatimudo Village, which is 1,500 km away from the WTP. Water is not available in Embung Sambongan during the dry season (October to January). Operation is stopped in November and December because there is totally no water. At that time, people take water from a retailer with a price of Rp. 100,000 per 4,000 L. Embung Sambongan is managed by Dinas Water Resources and PDAM, which pay a water fee of Rp. 22.5/m<sup>3</sup> of water sold.
- WTP operation is 16 hours a day. Clear water is kept in the reservoir and there is no operation at night time. Clear water is supplied to customer through two systems, namely, gravity system and booster pump to increase water pressure. At night time, booster pump is not operating so distribution is through gravity system. Distribution to customer is 24

hours. Booster pump is operated only at peak hours (5-10 in the morning and 5-8 at night).

- Raw water and treated water quality are tested once every 6 months. Operator of WTP has sufficient skills. Based on water quality test result, the operator determines the coagulant dosage. Pipe distribution map is not available. Pipe inventory depends on the knowledge of distribution technician at the field.
- WTP is a fiber WTP package. There is leakage problem at joint fiber and courage occurred at fiber when operated at full capacity. PDAM has maintained the leakage problem. For courage problem, the operator just reduces operation capacity.
- Water fee collection rate is 100% a year. Delayed payment, about 5% in a month, will be paid during the succeeding month including penalty fee. Water fee payment is Rp. 48,000 per connection on average.
- PDAM and District Bappeda have development plans involving countermeasures to assure availability of raw water at Embung Sambongan during the dry season. The plans include making sediment dredging to extend storage capacity in the embung and making canal connecting to Sulang River to fill embung with water during the wet season.

<b>No. B-20</b>	<b>SPAM IKK: Bancar</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Tuban	Tuban		East Java	
	Staffs	Staff	Staff	Head and staffs	Head and staffs

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	5	Number of House Connections	383

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Bancar was built in 2006 with capacity of 10 L/s from deep well (bore well). The IKK is designed to support the existing deep well system that has been built in 1992 (10 L/s) since the existing well can only provide 5 L/s at present. The IKK is not operated upon finishing the construction in 2006 because water suddenly disappeared. The water sounding test was carried out by PDAM. Design of deep well was conducted by Satker Province.
- In 1992, deep well water supply was designed for a capacity of 10 L/s. At that time, PDAM has installed a total of 794 house connections (HC) in four villages, namely: Sukolilo (150 HC), Bulu Jowo (294 HC), Bulu Maduro (94 HC) and Banjarejo (256 HC). Then, the deep well water decreased up to 5 L/s, Thus, the remaining 398 house connections that can be serviced at present are scattered at Sukolilo Village (150 HC), Bulu Jowo (160 HC), Bulu Maduro (30 HC) and Banjarejo (58 HC).
- According to PDAM staff, water supply at Bancar is mostly sourced from deep water. However, PDAM Tuban is studying which deep water is utilized at Bancar by coordinating with P2AT of Dinas Water Resources.
- Deep water quality at Bancar contains high Fe. The water is used by customers for cooking, washing and bathing only.

- During the construction of deep well at Tuban, PDAM promoted said construction to the surrounding residents by explaining that the construction of new well will not disturb their existing wells.
- PDAM Tuban, Dinas Cipta Karya District and Bappeda District have good coordination. Construction of distribution pipeline at Tuban is carried out by Dinas Cipta Karya District. During design and construction of the distribution pipeline, Dinas Cipta Karya is cooperating with PDAM because the latter has thorough knowledge with regards to the existing pipeline network.
- PDAM sends training participants to Wiyung Training Center in Surabaya at around 10 persons per year. There are two types of training budget, namely: 1) PDAM has to pay transportation cost only, and 2) PDAM has to pay all training cost (material, transportation, accommodation).
- Water fee collection rate for SPAM IKK is 98% in a month. Delayed customers just pay during the succeeding month including penalty fee.
- PDAM Tuban has future plans for Tuban water supply by developing new deep well at Latsari Village that has potential to supply up to 25 L/s. PDAM plans to prepare detailed engineering design which will be proposed to Satker Province in 2011.

<b>No. B-21</b>	<b>SPAM IKK: Jenangan</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Ponorogo	Ponorogo		East Java	
Contact persons	Director and staffs	-	-	Head and staffs	Head and staffs

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	10	Number of House Connections	200

The following issues and probable causes found at on-site review of SPAM IKK:

- Proposal of SPAM IKK Jenangan basically came up to provide water supply for Jenangan District, which has shortage on water availability. The new deep well is located in Jenangan Village to serve the area in Jenangan, Jimbe, Panjeng and Plalangan villages. The SPAM IKK Jenangan constructed in 2006 was connected to the existing four systems in District Jenangan.
- The new deep well (with capacity of 10 L/s), panel house, and distribution pipe were temporarily handed over for management to PDAM Ponorogo. It was conducted at the end of 2006 by East Java Provincial Satker.
- Currently, the SPAM IKK (deep well) serves around 200 house connections. But since the new deep well was connected to the existing systems, the total number of units managed and served by Jenangan is 1,201 house connections.
- The crucial problem in this area is the condition of the pipe system and the age of the installation.
- Water fee collection is conducted in “loket” in the central and in each unit, and in the designated office. Average payment for the SPAM IKK Jenangan is Rp. 33,500/month.
- In terms of operation and maintenance, the deep well is in good condition. However, since there is no treatment facility, untreated water is being distributed.
- The financial problem of this SPAM IKK is mostly because the SPAM IKK cannot expand the connection since there is no budget to install the distribution pipe and house connections or to replace the existing pipe.

<b>No. B-22</b>	<b>SPAM IKK: Gemarang</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Madiun	Madiun		East Java	
Contact persons	Staffs	-	-	Head and staffs	Head and staffs

Water Source	Groundwater	Water Treatment	—
System Capacity (L/s)	10	Number of House Connections	435

The following issues and probable causes found at on-site review of SPAM IKK:

- Proposal of SPAM IKK Gemarang basically came up to provide water supply for Gemarang District, which has shortage on water availability. The new deep well is located in Gemarang Village and connected to the existing distribution pipe in the downstream area. The existing SPAM IKK was established in 1989. Since the water source is from deep well that contains high Fe and Mn and there is also shortage in terms of quantity, PDAM through provincial Satker therefore proposes the Project to central Satker.
- Management of the new deep well (capacity of 10 L/s), which was temporarily handed over to PDAM Madiun, was conducted on 5th October 2006 by East Java Provincial Satker.
- The existing SPAM IKK Gemarang was established in 1991 with the intake and WTP plant financed by loan from the Ministry of Finance. However, this SPAM IKK intake has been damaged by flood and landslide. The new deep well constructed under this project is located in the upstream of the existing SPAM IKK and connected to three other pump systems. It is managed under the unit of District Saradan. which served a total of 2,282 house connections. Now, PDAM Madiun proposed to central Satker to support the development of this SPAM IKK (with WTP system).
- Currently, the SPAM IKK (deep well) serves around 430 house connections. Some of them are just being connected within a few days. Since the location of houses is quite far and entails more connection costs, the community wants to have a connection with low price.
- The crucial problem in this area is the condition of the pipe system which is already old and over its capacity. Most are deep wells and water is distributed without treatment.

Only one SPAM IKK Kare constructed by SPAM IKK Project in 2009 has WTP. Therefore, PDAM proposes to source for assistance to constructing the WTP and reservoir if possible.

- Water fee collection is conducted in “loket” in each unit and also through the representative of community which is called “Karang Taruna”. Average payment for the SPAM IKK Gemarang is Rp. 25,000/month.
- In terms of operation and maintenance of treatment facilities, the deep well is in good condition. The only concern is the grasses that growing rapidly around the deep well.
- The financial problem of this SPAM IKK is mostly because the SPAM IKK cannot expand the connections since there is no budget to install the distribution pipe and house connections.



<b>No. B-23</b>	<b>SPAM IKK: Burneh</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Bangkalan	Bangkalan		East Java	
Contact persons	Director and staffs	Staff	Staff	Head and staffs	Head and staffs

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	20	Number of House Connections	376

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Burneh was constructed in 2007 with capacity of 20 L/s using fiber WTP package under APBN, through Satker Pusat. The IKK is connected to the existing system that has been built since the Dutch era. The existing system uses spring water from Ponjong, which is 27 km from the city of Bangkalan, and has been allotted for city water supply. Since the capacity of spring water is declining and the pipe is old, a new water supply system was constructed in 1980 by taking raw water from Tangkil River including a conventional treatment plant (reinforced concrete) with capacity of 70 L/s. At the same time, Ponjong spring water was still used to supply Tanjung housing area (in 1996) which is limited to 50 house connections until 2002. Tanjung housing area faces increasing number of house connections. Since this condition could not be supplied by Ponjong spring water alone, SPAM IKK Burneh was proposed to serve said housing area and some areas surrounding Suramadu Bridge, which are projected to be developed as a result of the bridge construction.
- Since two to three months ago, the WTP of IKK Burneh stopped operation due to the poor quality of treated water. Much turbidity settled at house connections' storages causing people to complain about the situation. The poor water quality of treated water is caused by the poor performance of WTP. Regarding PDAM officers and operators at the facility, the WTP system units are not optimally working. When interviewed at site, it seems that the operator of WTP do not have enough skills for operating the system. Unfortunately, manual of WTP operation is also not available. The operator merely listened to the explanation from the supplier during the commissioning test period. Based

on the explanation, the operator conducts operation and maintenance of the WTP without knowing how often back washing of rapid sand filter should be carried out. Thus, the operator said that there is a problem regarding rapid sand filter back washing.

- To solve the problem at WTP, PDAM Bangkalan has coordinated with Satker Province about what countermeasures should be taken. As a result of the coordination, Satker Province suggested to PDAM to write a letter to Satker Pusat regarding this problem. As regards the response coming from Satker Pusat, through the supplier of the WTP package, said supplier has only provided as-built drawing to PDAM without analyzing the problem that happened at SPAM IKK Burneh.
- At present, SPAM IKK Burneh has a total of 370 house connections. Since WTP has no operation, the IKK customers are served and supplied by the old WTP with the amount of 70 L/s. The service is provided for only 6-7 hours a day during day time only (from 9 am to 3 pm)
- Water fee payment rate is 100% in a year. On average, the monthly rate of water fee payment is 95%. Late customer will pay the water bill on the succeeding month, including penalty fee.

<b>No. B-24</b>	<b>SPAM IKK: Kepung</b>	Survey date : May 24 ~ 27, 2010
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Responsible local agencies	PDAM/BLU  Kediri	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Staffs	Staff	Head and staff	Head and staffs	Head and staffs

Water Source	Canal	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	604

The following issues and probable causes found at on-site review of SPAM IKK:

- Proposal of SPAM IKK Kepung basically came up to provide water supply for Kepung District, which has shortage on water availability. The proposal came from PDAM to Bupati and then from Bupati District Kediri and Director of PDAM to the provincial Satker and finally, from provincial Satker to central Satker. The proposal also mentioned about the availability of support of local government for the distribution pipe.
- The new intake and WTP (capacity of 20 L/s) and all of the facilities as well as the new reservoir (300 m<sup>3</sup>) constructed under the budget of central Satker (FY 2008) are completed at the end of 2008 and handed over on 31st December 2008. It was originally designed to be operated by gravity system. Unfortunately, during the commissioning, the water cannot be distributed using said system. Therefore, in 2009, through the Stimulus Fiscal Budget, the central government reallocated some budget to procure the pump and constructed the new reservoir. The reservoir is located in Besowo at an elevation of 210 m to distribute the water to the customers by gravity system.
- All facilities and equipment constructed under the central Satker budget were handed over to PDAM on 2nd Nov 2009.
- Currently, the SPAM IKK serves around 70 house connections. Some are just being connected within a few days. Since the location of houses is quite far and requires more connection costs, the community wants to have the connection at a low price.
- The fee for a new house connection in SPAM IKK Kepung is Rp. 335,000. For other areas served by PDAM, it is Rp. 420,000. The payment for house connection can also be paid in three installments.
- In terms of water fee collection, SPAM IKK Kepung just started serving house

connections from March 2010. The unit office of SPAM IKK Kepung has just operated in April 2010. The customers paid the bills through the unit or through the staff (door to door) during the latter's conduct of water meter reading.

- As regards the operation and maintenance of treatment facilities, the dosing pumps, distribution pump and generator sets are still being used and maintained well since they are just operated in April 2010.
- The financial problem of this SPAM IKK mostly concerns its inadequate capacity to expand connections due to limited budget to install the distribution pipe and house connections. Presently, around 1,000 connections are in the waiting list.

<b>No. B-25</b>	<b>SPAM IKK: Selopamioro</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Bantul	Bantul		Yogyakarta	
	Director and staffs	Head and staffs	Head and staffs	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	70

The following issues and probable causes found at on-site review of SPAM IKK:

- Proposal of SPAM IKK Selopamioro basically came up to support the National School for Police (SPN). Before the disbursement of budget from central Satker, District Bantul has allocated budget (since FY 2007) to construct the intake, WTP (made of concrete. with capacity of 10 L/s) as well as transmission and distribution pipes. Basically, gravity system is adopted and the water reservoir is located about 370 m above sea level.
- The new intake and WTP (capacity of 10 L/s) and all of the facilities as well as the new reservoir (150 m<sup>3</sup>) constructed under the budget of central Satker (FY 2009) are connected to the existing distribution system in SPAM IKK Selopamioro.
- All facilities and equipment constructed under the central Satker budget were handed over to PDAM on 2nd Nov 2009.
- Currently, the SPAM IKK serves around 70 house connections. Some are just being connected within few days. Since the location of houses is quite far and requires more connection costs, the community wants to have the connection at low price.
- The crucial problem in this area is related to electricity. Since the system and treatment plants are using electricity and the tariff imposed to PDAM is B to B (Business to Business) tariff, which is quite expensive, the operational costs of PDAM is high. The generator sets (5 sets) are not being used. While during rainy day, no electricity is supplied by PLN. Thus, PDAM also needs support from local government. Now, PDAM gives a discount of Rp. 200,000 from the existing price of new connection (Rp. 750,000).
- Water fee collection is not yet implemented for SPAM IKK Selopamioro since new connections just started last month (April 2010).
- As regards the operation and maintenance of treatment facilities, the dosing pumps,

distribution pump and generator sets are still being used and maintained well.

- The financial problem of this SPAM IKK mostly concerns its limited capacity to expand connections since there is no budget to install the distribution pipe and house connections.

<b>No. B-26</b>	<b>SPAM IKK: Gamping</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Sleman	Sleman		Yogyakarta	
Contact persons	Director and staffs	-	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	1,595

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Gamping was established in 1989 and located at Belacatur Village, which is one of five villages in the Gamping Sub-District. It is financed by APBN and its water source came from deep well which has high Fe and Mn contents. The topography of this village is hilly and there is shortage of water. Since the quality of water sources was not good, a request for assistance was proposed to the central government in 2008 to improve the quality of water by utilizing Konteng River as source, treated through WTP. Besides, PDAM has also changed the source from deep well to shallow well. The water treated in the WTP is mixed with the water from shallow well to dilute the Fe and Mn before it is distributed to PDAM's customers.
- The intake and WTP (capacity of 10 L/s) and all of the facilities as well as the new reservoir (150 m<sup>3</sup>) constructed under the budget of central Satker (FY 2008) are connected to the existing distribution system in SPAM IKK Gamping. Before this, provincial Satker using the budget of APBN Murni, also supported the installation of about 1.5 km distribution pipe, steel reservoir with capacity of 100 m<sup>3</sup> and accessories for pipeline installation (FY 2007).
- All facilities and equipment constructed under the central Satker budget were handed over to PDAM on 30th Dec 2008. PDAM conducted trial in using the WTP in the beginning of 2009.
- Currently, the SPAM IKK serves around 1,595 connections. The future target is to serve additional 1,800 housing units that are recently developed in this area.
- There are ten permanent staffs and one contractual staff that operate the SPAM IKK Gamping. It consists of one chief of unit, two operators and the remaining are the

production and customer relations staffs.

- Allocation of budget sharing for PDAM in this area is in the form of capital. Thus, PDAM shall decide to use the budget based on prioritization.
- The crucial problem in this area is the aging condition of the existing system and treatment plants, and the much needed budget to improve the facilities and equipment. The new director has been active in bridging the communication with Kabupaten Office, Dinas PU Kabupaten, as well as provincial and central Satker.
- In terms of water fee collection, the bill is around . 50,000/month for SPAM IKK unit. PDAM cooperates with PT. Pos Indonesia to collect the payment online. Every 17th to 20th of each month, some staffs of PT. Pos Indonesia through its mobile unit stayed in the unit office to collect the payment. Nevertheless, all of the customers can pay through the post office nationwide.
- As regards the operation and maintenance of treatment facilities, the dosing pumps, distribution pump and generator sets are still being used and maintained well. All these facilities and equipment are clean and appear to be maintained well.
- The financial problem of this SPAM IKK concerns its limited capacity to expand the connections since there is no budget to further install distribution pipes.



<b>No. A-5</b>	<b>SPAM IKK: Jungkat</b>	Survey date : May 29 ~ Apr.1, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Pontianak	Pontianak		West Kalimantan	
Contact persons	Director and staffs	Staff	-	Head and staffs	Head and staffs

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	182

The following issues and probable causes found at on-site review of SPAM IKK:

- The raw water from river has low pH value and color due to humic acids. The first water treatment plant (WTP) was made of steel constructed in 1993. However, it soon became malfunction by acid corrosion. The new acid-resistant WTP under the SPAM IKK project was constructed which made of FRP.
- As the treated process was normal rapid sand filter, the color cannot be removed. The people use the distributed water as not potable but general use water. They are still using rainwater for potable water.

<b>No. A-6</b>	<b>SPAM IKK: Sei Bulan</b>	Survey date : May 29 ~ Apr.1, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Singkawang	Singkawang		West Kalimantan	
Contact persons	Director and staffs	Head and staffs	Staff	Head and staff	Head and staff

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	250

The following issues and probable causes found at on-site review of SPAM IKK:

- The system was constructed by the contractor from Jakarta after bidding held by the Central Working Unit. Local government (APBD) scope i.e. distribution network has just started from 2008 over three years due to the budget constraint of the District Dinas PU.
- Currently only operational facilities are the intake and treatment plant and yet to be handed over to PDAM. District Dinas PU operates them under UPTD arrangements where Dinas PU undertakes operational expenses and the water is supplied through several public hydrants with free of charge. After the completion of distribution network, the facilities are planned to be handed over to PDAM who will undertake the operation.

<b>No. B-27</b>	<b>SPAM IKK: Sepaku</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Penajam Paser Utara	Penajam Paser Utara		East Kalimantan	
	Director and staffs	Head and staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	5	Number of House Connections	234

The following issues and probable causes found at on-site review of SPAM IKK:

- Basically, there were three SPAM IKK projects in District Penajam Paser Utara (PPU), namely: Sepaku, Babulu and Waru. However, only SPAM IKK Sepaku has been handed over to PDAM for operation. For SPAM IKK Waru, the intake and WTP have been handed over to PDAM from provincial Satker but the distribution pipe installation being implemented last year still has not been handed over since the head of Dinas PU District PPU requested some rehabilitation on the system. Based on the discussion with regional secretariat when the Study Team visited District Office, PDAM requested budget for house connections from District Office. Thus, budget for around 2,000 house connections for SPAM IKK Waru will be proposed under the APBD II Amendment this year.
- Basically, the project was implemented under the name of PSAB Project in 2005 and has been handed over to PDAM in June 2006 from Provincial Satker to PDAM District PPU.
- Basically, the evaluated SPAM IKK is located in IKK Sepaku, which is about 180 km from District. Previously, there was a WTP with capacity of 2.5 L/s that has served 120 house connections in this area. To support the water supply needs due to the rapid growth of population in this area, the provincial Satker proposed another 5 L/s WTP, new distribution pumps and generator set as well as supporting rooms for operation in the existing Sepaku unit. The new WTP was installed next to the existing WTP.
- Currently, the SPAM IKK Sepaku serves 234 house connections. Basically, there are lots of demands/requests for new connection. However, since there is no budget to install the new distribution pipe system, the connection cannot be expanded. Based on the interview with the head of Dinas PU during the visit, there is also a plan to make a big weir to support the requirements for raw water sources. They also plan to sell the water later to

Balikpapan City since it has shortage of water sources and then to install a big WTP (150-200 L/s) for the expansion of Sepaku Weir in the future.

- Basically, the facilities and equipment provided through the central Satker budget is still working. However, due to the high operational cost of SPAM IKK Sepaku, it still uses generator set for its operation. Thus, the operating hour is only 24 hours per week or one day, serving the old house connections, and one day for serving the new house connections (cost for diesel is around Rp. 8 million/month while revenue of unit is only Rp. 5 million/month).
- Another crucial problem in this area is the availability of budget for installing the new distribution pipe for expansion and electrical installation for this unit to reduce the cost.
- In terms of water fee collection, the bill is around Rp. 60,000/month. Most members of the community are oil mining laborers and farmers. They basically pay the bill on schedule. The affordability of the community for the water fee is good but the capacity of PDAM to provide better services is still low.
- As regards the operation and maintenance of treatment facilities, the dosing pumps, distribution pump and generator sets are maintained well. The SPAM IKK operates around 24 hours per week with three staffs (two operators and one administration staff who are all non-permanent staffs). The collection and payment of the bill of the customers are done in this unit office.
- The financial problem of this SPAM IKK mostly concerns its limited capacity to expand connections since there is no budget to install the distribution pipes.

<b>No. B-28</b>	<b>SPAM IKK: Loa Janan</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Kutai Kertanegara	Kutai Kertanegara		East Kalimantan	
	Staffs	Head and staff	-	Head and staff	Staff

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	10	Number of House Connections	490

The following issues and probable causes found at on-site review of SPAM IKK:

- Provincial Satker asked why only two SPAM IKKs (Loa Janan and Sepaku) are being evaluated right now because basically, these two SPAM IKKs have been working although there are some small problems. There are some other urgent SPAM IKKs in this province that require assistance such as SPAM IKK Kasai (Kabupaten Berau), SPAM IKK Muara Tua (District Berau), SPAM IKK Sandaran (Kab. Kutai Timur), and SPAM IKK Waru (proposed to be financed this year), which now need urgent assistance for the maintenance or installation of the existing distribution pipes that are presently damaged.
- Basically, the project was implemented under the name of SPAM IKK Project 2007 under the management of central Satker. The budget from central Satker was Rp. 1,308,618,125 for the construction of intake and pre-sedimentation pond, intake pump installation and WTP (SISTEK brand made of fiber). The proposal from PDAM was collected by provincial Dinas and submitted to central Satker. In the same year, provincial Satker also allocated budget to construct the reservoir, procure and install the distribution pumps (2 units) and install the 6 km distribution pipe Ø 100-150 mm.
- Basically, the evaluated SPAM IKK is not located in the IKK but in Purwajaya Village. In the IKK itself, there was another unit which is called Loa Janan Unit that has WTP with capacity of 70 L/s. To support the existing WTP of 2.5 L/s in Purwajaya Village, PDAM proposed to install additional 10 L/s WTP in this village.
- There are two WTPs in Purwajaya Village (IKK Loa Janan) which have been connected now. The existing WTP has capacity of 2.5 L/s and serves 238 house connections (HCs). The new WTP constructed under the SPAM IKK Project in 2007 has capacity of 10 L/s. The distance between the two WTPs is around 700 m. Now, both WTPs are serving 508

HCS + 15 new HCS = 523 HCS.

- Basically, the facilities and equipment provided under the central Satker budget is still working but PDAM has already repaired the WTP ten times. PDAM complained the condition of the WTP to the contractor who usually do not render immediate action. Provincial Satker has also been asked by the auditor why fiber was used for the WTP.
- Another crucial problem in this area is about the water sources. The existence of mining activities in this area is becoming a serious water sources issue. The quality of raw water becomes worse mostly during rainy days. Therefore, PDAM Purworejo unit is not operating during the rainy days.
- In terms of water fee collection, the bill is around Rp. 60,000/month. Most members of the communities are involved in coal mining labor. They basically pay the bill on schedule and only few of them are penalized due to late payment.
- As regards the operation and maintenance of treatment facilities, the dosing pumps, distribution pump and generator sets are maintained well. The SPAM IKK operates around 7-15 hours/day with 4 staffs including the chief of unit and staff who collects bills of SPAM IKK customers. The new office constructed by the project has not been used yet and the Purwojaya unit staffs are still working in the old office near the 2.5 L/sec WTP.
- The financial problem of this SPAM IKK mostly concerns its limited capacity to expand connections since there is no budget to install the distribution pipe and the distances between the houses are quite far.

<b>No. B-29</b>	<b>SPAM IKK: Kertak Hanyar</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Banjar	Banjar		South Kalimantan	
Contact persons	Staffs	Staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	2,569

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Kertak Hanyar is supposed to support the existing WTP with capacity of 20 L/s due to the separation of District Banjar into District Banjar and District Banjar Baru in 2002. District Kertak Hanyar is located at the boundary of Banjarmasin City and District Banjar, which has no water system yet at that time. The previous existing system was built in 2003 with capacity 20 of L/s through APBN provincial budget. Due to high population growth and shortage of clean water, SPAM IKK was proposed in 2004 and built in 2005.
- The raw water is taken through transmission pipe of Banjarmasin from the Tabuk River. The available raw water capacity from Banjarmasin to Kertak Hanyar system is 50 L/s. At present, the system only uses 40 L/s. The raw water fee is Rp. 200/m<sup>3</sup>.
- Data on raw water and treated water qualities are tested once every two months. Treated water quality complies with the Ministry of Health Regulation No. 416/1990.
- WTP operates for 24 hours per day. However, there is no operation during blackouts. On average, the operation time is only 22 hours a day.
- The rate of collection of water fee is about 80% in a month because the major customers, which are farmers (about 70%), delay their payments until harvest time.

<b>No. B-30</b>	<b>SPAM IKK: Binuang</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Tapin	Tapin	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	2,569

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Binuang with 10 L/s capacity was constructed in 2005. The system is connected to existing systems that were built by French in 1987 and by APBN province in 1994, both with 5 L/s capacity. Detailed design of SPAM IKK Binuang was prepared in 2003 through PDAM budget.

Raw water is taken from Binuang River, which has low debit on during dry season. However during heavy dry season, there is a month, usually August, in which raw water is not available. The raw water quality has high turbidity during wet season. Unfortunately, raw water and treated water quality were not tested at the laboratory. The high turbidity was caused by coal mining activities at the upper area of intake located about 500 m away. The mining activities started operation since 1994.

Treated water quality still has turbidity due to the underperformance of WTP - having lack of maintenance. It is shown in the field that the sediment cake in the sedimentation tank almost reaches water surface level wherein the area of water is only about 15 cm from surface. According to the chief of WTP Binuang, sediment cleaning is done once every two months. The unskilled operator is one of the reasons for the lack of maintenance; setting aside management reason (low tariff).

Water tariff was revised from Rp 500/m<sup>3</sup> to Rp. 1,900/m<sup>3</sup> on July 2009. The difficulty for tariff revision is due to political issues in Bupati.

- Total length of connection at District Binuang is 1,280 m. The service area is divided into two service zoning: 1) upper zone and 2) lower zone. These areas get water services based on alternate daily schemes (e.g. one day for the upper zone, the succeeding day for the lower zone.)



- The WTP is operated for 24 hours especially during blackout.

<b>No. B-31</b>	<b>SPAM IKK: Kereng Pangi</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Katingan	Katingan		Central Kalimantan	
Contact persons	Director and staffs	Head and staffs	Head and staff	Staffs	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	5	Number of House Connections	348

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Kereng Pangi was completed on December 2005 consisting of intake, steel made WTP with of 5 L/s capacity and reservoir with 5 L/s capacity. However, it has no laboratory facility, backup generator and testing apparatus.
- The other facilities following the project were the pipe bridge completed in 2006, and additional distribution pipe completed in 2009.
- The SPAM IKK Kereng Pangi was designed as replacement to the existing treatment plant located at Talangkah Village which use water source from the Kalanaman River. The Kalanaman River was then contaminated with mercury due to illegal gold mining by the local community along the said river.
- The condition of the WTP facilities was not too good due to the lack of maintenance and yet the facilities were still able to operate and supply clear water with sufficient capacity of 5 L/s for 21 hours per day. The disturbance of the WTP operation was mostly due to the unstable supply of electricity from PLN. The chemical for the coagulant is directly injected on the flocculator tank which no longer use flush mixing. The disinfectant is rarely used, and in a very less dosage since most of the local community do not like the smell of the hypochlorite.
- The expansion of distribution pipe is difficult considering the wide and far coverage area, and land elevation differences.
- General problems for overall PDAM operation are:
  - High operation cost and minimum water tariff,
  - Less maintenance of WTP facilities due to less availability of budget,
  - Required training for operator, and

- No project data (commissioning test result, as-built drawing and operation manual of WTP) available at site or at PDAM office as it is kept by central SPAM IKK in Jakarta.

<b>No. B-32</b>	<b>SPAM IKK: Tumbang Talaken</b>	Survey date : May 3 ~ 7, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Gunung Mas Director and staffs	Gunung Mas		Central Kalimantan	
		-	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	82

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Tumbang Talaken facility was completed on December 2008 with capacity of 10 L/s. Commissioning test was done on 18 February 2009, during the trial operation from February to April 2009, while billing just started on June 2009.
- The project consists of bridge-type intake at the Manuhing River, raw water transmission pipe, steel made WTP 1 with cone clarifier type and with capacity of 10 L/s and concrete reservoir with 150 m<sup>3</sup> capacity.
- The condition of WTP facilities was generally in good condition, and properly maintained. House connection is very less (82 connections up to December 2009) compared to WTP capacity. Therefore, WTP only operates 4 hours per day at 5:30-7:30 AM and 4:30-6:30 PM, which also adjusts to the activities of the local community mostly involved in farming.
- General problems for overall PDAM operation are:
  - The condition of the distribution pipe networks were poorly constructed as its embedment is very shallow and is visible on the road. These pipes are frequently damaged by road construction activities;
  - Accessibility to Tumbang Talaken site was difficult. Referring to its location, the site should be accessed from the district capital of Kuala Kurun. However, due to the very poor condition of road, it can only be accessed from the province capital of Palangkaraya direction which also appear to be in poor condition,(i.e., peeled asphalt pavement and mostly soil/gravel road);
  - Less budget for expanding the distribution network. The PDAM plan on 2010 is to expand house connections up to 380, from 82 as of December 2009; and

- Required training for operators.

<b>No. B-33</b>	<b>SPAM IKK: Binangga</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Donggala	Donggala		Central Sulawesi	
Contact persons	Director and staffs	Staff	Staff	Head and staff	-

Water Source	River water	Water Treatment	SSF WTP Concrete
System Capacity (L/s)	20	Number of House Connections	138

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Binangga is known as IKK Wisolo/Sambo. The initial design was conducted under the rural water supply project in Sulawesi Island (phase III) through the Government of Indonesia, in cooperation with the Government of Japan. The design in 2003 for the intake well structure and ground reservoir is such that the raw water is designed from mountain stream at the Wiera River. The system was designed to supply the existing Marawola sub-district and Palu City. In 2004 when the implementation started, there were complaints from people who lived around the Wiera River. These people did not permit drawing of raw water from Wiera River as they are worried that their paddy fields would not get water supply. Hence, the project searched for another raw water source at the Wisolo River in the Sambo sub-district. The Wisolo River is 24 km farther from the existing plan at the Wiera River. Then, the project was constructed in 2004. Considering the Wisolo River water quality and the facilities, i.e., intake and ground reservoir, constructed through Satker Province, the additional treatment plant was procured (pre-sedimentation unit and slow sand filter unit) under SPAM IKK Binangga in 2005, with a capacity of 20 L/s.
- The service area was changed. The service area cannot supply Marawola and Palu as the water cannot reach these areas due to insufficient pressure. Actually, the distribution is connected with the Marawola distribution; however water is not available.

The service area covers the villages of Dolo Selatan, Dolo Barat and Beka. With

total connections of 132.

- The monthly water collection fee is about 4% of total water invoice. Water tariff for domestic use is applied at a flat rate of Rp. 10,250 per month. People do not pay because they reason out that the water quality is bad (turbid water), and the water service is unstable, i.e., water is not available everyday. According to PDAM staff, turbid water is caused by water that flow from intake-pre sedimentation-reservoir-customer. The slow sand filter (SSF) was not operated because it is clogged up and over flows during operation. In a month, there are 14 days in average that the system can not be operated due to high raw water turbidity at intake. This is the explanation obtained related to unstable water services.

<b>No. B-35</b>	<b>SPAM IKK: Sabang</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Donggala	Donggala		Central Sulawesi	
	Director and staffs	Staffs	Staffs	Head and staff	-

Water Source	Lake	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	No Data

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Sabang is located at Sub-District Damsol, which started construction in 2008 and completed at the beginning of 2009. IKK Sabang is not yet operated since the construction of distribution pipelines has not been completed. SPAM IKK Sabang is planned to supply clean water to four villages: Sabang, Talaga, Kabayan, and Sioyong. The design of SPAM IKK Sabang was done by Satker Pusat in 2007.

SPAM IKK Sabang has intake, WTP (10 L/s), reservoir (100 m<sup>3</sup>), and reservoir distribution (200 m<sup>3</sup>) which are located in Talaga Village. The distribution pipe construction was done only for Sabang and Talaga villages, while that for Sioyong and Kabayan is still pending. The pipe construction at Talaga and Sabang villages were finished at the end of 2009. The constructions of intake, WTP, reservoir, and pipe distribution were conducted under the management of Satker Pusat.

SPAM IKK Sabang was planned to supply 1,000 house connections at these mentioned villages.

According to Dinas PU Donggala, the remaining distribution pipeline at SPAM IKK Sabang would be proposed to District in order to complete the system.

SPAM IKK Sabang has not undergone commissioning tests yet. Regarding Satker Province, the commissioning of WTP is planned on the next two weeks.

Raw water intake is constructed at the edge of Talaga Lake. The intake construction type is made of concrete open canal connected to the collection well. It seems that at the mouth of the open canal, much sediment exist which hinders the flow of raw water inside the open canal and collection well.



<b>No. B-34</b>	<b>SPAM IKK: Palu</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Palu	Palu		Central Sulawesi	
	Director and staffs	Staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	10	Number of House Connections	274

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Palu is proposed to supply water to Palu City as conducted in 2006 with a capacity of 10 L/s and treated by fiber WTP package under Satker Pusat. Raw water is taken from the Kawatuna River.
- Almost 80% of the house connections located at Palu City is served by PDAM Donggala. Previously, Donggala was the capital city of the province before Palu. Separation between District Donggala and Palu City was initiated in 1996 while PDAM Palu was established in 2003. A total of 1,500 house connections are served by PDAM Palu in Palu City at present.
- Production capacity of the IKK is 3 L/s per day because the present number of house connections is 300, located at the Kawatuna housing area. The IKK is planned to service the population living at the new housing area in Merpati. However, distribution pipelines have not been installed yet.
- At present, there are on-going discussions with regards to merging PDAM Donggala and PDAM Palu to provide better services to customers and ease the construction of new distribution pipelines since at these two cities were used to be just one area. Because of the separation of Donggala and Palu, the interconnection of the distribution pipeline has been difficult. The small number of Palu City house connections is in addition to the reasons for the proposal to merge PDAMs. According to both directors of PDAM, Satker province, both Dinas Cipta Karya of the province and city, the decision for the merging should be done in 2010.

- According to the Dinas Cipta Karya of Palu City, Palu has plans to construct distribution pipelines to connect Merpati housing area and the existing distribution pipeline at Donggala. This is intended to optimize the capacity of WTPs that were constructed at Palu City.
- Quality of treated water appears clean although no water quality tests were conducted for the raw and treated water. Collection of water fee is 100% in a year. In a month, the delay of payment is only 5% consisting of customers who will pay during the succeeding month, including penalty charge.
- WTP facilities are well maintained.

<b>No. A-7</b>	<b>SPAM IKK: Pattalasang</b>	Survey date : March 22 ~ 24, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Takalar	Takalar		South Sulawesi	
Contact persons	Director and staffs	Staff	Staff	Head and staff	Staffs

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	1,200

The following issues and probable causes found at on-site review of SPAM IKK:

- The river water is under the control of district therefore, there was no issue related to the water right. The transmission line is constructed from water intake to the treatment plant (2.4km). No technical issue is observed.
- Connected customers account for 1,200. There is no public hydrant. The system applies a bulk meter to measure water distributed. Customers pay water tariff at PDAM customer office. Tariff system was revised two years ago by the Head of District (Bupati) approval.

<b>No. B-37</b>	<b>SPAM IKK: Galesong Selatan</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Takalar Director and staffs	Takalar	Takalar	South Sulawesi	South Sulawesi
		-	-	-	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	713

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Galesong Selatan facility was completed in 2008, which consists of intake facilities, raw water conveyor pipe, and diffuser type WTP Klearator with capacity of 20 L/s, and main distribution pipe. The WTP facility is also located in the same compound where the other facility, SPAM IKK Sanrobone, was constructed using the 2009 budget, under a separate program.
- The existence of another water supply program was provided by NGO (Unicef) within the coverage area of PDAM. This NGO program is community based, which supply free non-treated water from a ground water source through a drilled well. This supply from the drilled type well was proven to be inconsistent as it is only able to provide water for short periods of approximately three to six months. This free water supply has come in conflict with the interest of PDAM. The community insists to have free supply from PDAM. Therefore, PDAM suggested that the local government should manage such independent type of water supply and integrated with the PDAM's existing system in order to avoid conflict of interest.
- WTP operation time is 12 hours per day, from 6:00 AM to 4:00 PM
- General problems for overall PDAM operation are:
  - Expansion of house connection of Galesong Selatan sub-district to maximize the operation of the WTP, and
  - Required training for operator to maintain sustainable operation of the WTP facility.

<b>No. A-8</b>	<b>SPAM IKK: Patallasang</b>	Survey date : March 22 ~ 24, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Gowa	Gowa		South Sulawesi	
Contact persons	Director and staffs	Staff	Staff	Head and staff	Staffs

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	754

The following issues and probable causes found at on-site review of SPAM IKK:

- The project applies a rapid sand filter system which is designed by a plant supplier in Banten Province. Water source is Bilibili Dam of Jeneberang River basin. Distribution network is 45.8km in total.
- The SPAM IKK treatment site has an administration office which also functions as the tariff payment bureau. Connected customers are 754 households.

<b>No. B-36</b>	<b>SPAM IKK: Parapa</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Jenepono Director and staffs	Jenepono	Jenepono	South Sulawesi	South Sulawesi
		-	-	-	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	5,560

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Parapa was completed in 2008, consisting only of steel type WTP package with capacity of 20 L/s. The intake facility was constructed by APBN in 1993, and the reservoir by APBD in 2000.
- The WTP Parapa by SPAM IKK with capacity 20 L/s was constructed to supplement the existing facility, which is situated at the same site. Thus, SPAM IKK Parapa and the existing treatment plant each supplied 20 L/s to the reservoir with capacity of 200 m<sup>3</sup> and transmitted to two other reservoirs. (one built by APBN in 1983 with capacity of 100 m<sup>3</sup> and the other with capacity of 200 m<sup>3</sup> built by a French donor). From the reservoir built by APBN in 1983, clear water is distributed to Kota, Arung Keke, Turatea, and a part of Binamo sub-district. While from the reservoir built by French, water is distributed to Tamalatea and also a part of Binamo sub-district.
- Therefore, WTP Parapa (20 L/s) is one part of the interconnection water supply system to serve several sub-districts within Jenepono District with a total supply capacity of 70 L/s (20 + 20 + 20 + 10 L/s).
- Electric supply from PLN to Parapa site was only intended for the operation of 20 L/s WTP. However, presently more electric supply is required for the operation of two WTPs with 20 L/s capacity each. The proposal and plan from PLN for the additional supply and installation is in progress.
- General problems for the overall PDAM operation are:
  - Expansion of house connection for Parapa sub-district to maximize the operation of the WTP, and
  - Required training for operator to maintain sustainable operation of the WTP facility.

<b>No. B-38</b>	<b>SPAM IKK: Latambaga</b>	Survey date : May 31 ~ June 2, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Kolaka	Kolaka		Southeast Sulawesi	
	Director and staffs	Staff	-	Head and staff	-

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	4,944

The following issues and probable causes found at on-site review of SPAM IKK:

- SPAM IKK Latambaga was constructed in 2008 with a capacity of 40 L/s. Raw water is taken from the Kolaka River and is treated through a steel WTP package. The IKK is connected to existing systems that has been available to three WTPs at District Kolaka. The distribution pipeline is interconnected to serve District Kolaka and District Latambaga, which was separated from the former in 2001.
- The three existing WTPs are: 1) WTP modified to slow sand filter (SSF) type with capacity of 50 L/s, constructed in 1978; 2) Steel package WTP with capacity of 20 L/s constructed in 1997; and 3) Steel package WTP with capacity of 50 L/s, constructed in 2003. At present, the capacity of WTP modified to SSF is 10 L/s.
- The total four WTPs including SPAM IKK Latambaga are located in the same area. Treated water is collected in three reservoirs with the following capacities: 1,000 m<sup>3</sup>, 300 m<sup>3</sup>, and 50 m<sup>3</sup>. IKK Latambaga treated water is collected in the 300 m<sup>3</sup> capacity reservoir. Consequently, the 300 m<sup>3</sup> reservoir is connected to the 1,000 m<sup>3</sup> reservoir before distributing supply to customers through gravity system.
- Treated water is interconnected through reservoir distribution with the package WTPs and SSF therefore the quality of treated water is poor. Customers have complained regarding quality of water; however, they have no alternative sources of water. Thus, they still use PDAM water by allowing it to settle for sometime before using.
- Operation time of the IKK is 16 hours a day and is not operated at night time. The raw

water transmission pipeline from the Kolaka River to WTPs consist of just one PVC pipe with diameter of 300 mm and length of 1,500 m. Raw water is pumped with a pump capacity of 150 L/s. As the raw water reaches the WTPs, the water is divided to each WTP. The IKK is not operated with full 40 L/s capacity but rather 20 L/s only because of the problem with the dosing injection at the raw water pipe. According to the operator, the dosing injection is frequently not working if raw water has impurities, i.e., leaf or wood cuttings, which can choke up the dosing injection pipe. Thus, coagulants could not enter the raw water pipe causing inefficient coagulation and flocculation process.

Although all WTPs are daily operated, about 6,000 house connections at District Kolaka and Latambaga are not able to get daily services. These house connections get water by rotation system, i.e., once in every two days, or once in ten days for house connections at high locations. The rotation system is applied because the Unaccounted-For-Water (UFW) number is high at about 59%. This is due to many leakages within the distribution pipeline which can not be detected as the pipes are located 2-3 m below the new/rehabilitated road pavements. According to PDAM staff, it is very difficult to find the precise location of leakages. Aside from this, high UFW is due to illegal water tapping.

- At present, IKK WTP is not operated because of problems at the dosing injection pipe wherein coagulants could not enter the raw water pipe. The operator tried to inject coagulants manually on top of the sedimentation tank; however, flocks could not be formed. It has been two months since IKK WTP has stopped operating.  
The operator said that during the cleaning of the sedimentation tank, there was a problem at the sediment drain pipe. The diameter drain pipe is 75 mm smaller for draining sediment thus leading to frequent clogging up. In order to handle this problem, the operator needs to pump water out of the drain pipe.
- The collection rate of water fee is 80-85% in a month. The reasons for late payment from customers are: unsatisfactory services to provide continuous water supply, rotation system done once in two days, poor quality of treated water, and refusal of some customers to go to “locket” to pay their bills.
- PDAM Kolaka informed that operation costs for WTPs are high because of diesel used for the generator at intake pumping of 150 L/s and chemicals such as alum and poly-aluminum chloride (PAC).



<b>No. B-39</b>	<b>SPAM IKK: Air Madidi</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Minahasa Utara	Minahasa Utara		North Sulawesi	
	Staffs	-	-	Head and staff	Staff

Water Source	Spring	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	227

The following issues and probable causes found at on-site review of SPAM IKK:

- The PDAM Minahasa was established at the end of 2007 after the separation of District Minahasa Utara from District Minahasa in 2003. The President/Director, previously from PDAM District Minahasa, has just been appointed in Nov 2008. However, he rarely reports to office and seems to be regularly audited. Their new office is located at the ex-Bupati office, within the complex of Dinas PU District office. The assets from the existing PDAM have not been officially handed over to PDAM Minahasa.
- According to the Engineering Director, there is an internal problem there. The members of the board of directors have different vision and mission.
- The new PDAM Minahasa has eight units Management is done by the head of each unit without reporting to the head office of PDAM. Hence, no technical or financial report is available in this office. Each unit conducts the collection of bill from their customers and manages their operational costs, i.e., payment of salary, chemical inputs, electricity, etc.
- The SPAM IKK Air Madidi is located around 12 km from the city of District Air Madidi. It served one village in District and three other villages in District Dimembe. Currently it serves 227 house connections. The SPAM IKK air Madidi operates for 24 hours a day.
- Basically the facilities and equipment provided by the provincial Satker budget are still working. However, since this PDAM and especially the units have limited budget, SPAM IKK services are not satisfying the customers.
- The crucial problem in this area is the management condition of PDAM Minahasa is still unhealthy and receives no subsidy from the local government to improve its performance. Thus, its management system has to be improved. There is also no good communication among the directors.

- Water fee collection bills are around Rp 32,000-37,000 per month for SPAM IKK unit. The heads of the units collect the payment through door to door through or through the unit itself. The collected revenues are used for financing the unit's operational costs.
- Operation and maintenance of treatment facilities:
  - Additional intake was provided connected to the system but directly conveys supply to the distribution without any treatment.
  - Some modifications have been made, i.e., water bypassed from clarifier to reservoir directly, and 25% of the input water pass directly to the reservoir.
  - They cannot afford to purchase the chemical inputs. After the chemical input stocks run out, no chemical inputs are used in the treatment system. Therefore the quality of water cannot be maintained.
  - The dosing pumps and generator sets are not maintained well. No chemical inputs are being used to improve water quality. The affordability/willingness of the community to pay is still high. There is also high demand to expand the coverage area of services of SPAM IKK.
- The financial problem of SPAM IKK concerns its inability to expand the connection because there is no budget to install the distribution pipe as well as for operations, as its management standpoint is still unclear.

<b>No. B-40</b>	<b>SPAM IKK: Amurang</b>	Survey date : May 10 ~ 14, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
Contact persons	Minahasa Selatan	Minahasa Selatan		North Sulawesi	
	Director and staffs	Head and staff	-	Head and staff	-

Water Source	Spring	Water Treatment	RSF WTP Steel
System Capacity (L/s)	20	Number of House Connections	215

The following issues and probable causes found at on-site review of SPAM IKK:

- The condition of PDAM Minahasa Selatan is quite similar to PDAM Minahasa Utara. It is a newly established PDAM after the separation of District Minahasa Selatan from District Minahasa in 2003. Similarly, the assets are supposed to be handed over in June 2010.
- PDAM Minahasa was established on 1 February 2007. The new director was appointed in Oct 2009. Last week, the PDAM office just shifted to Tumpaan unit office located in Amurang.
- According to the director, his predecessor did not establish good relationships with District Office, Dinas PU District and Province.
- The new PDAM Kabupaten Minahasa has eight units including two units under the new District of Minahasa Tenggara that still does not have its own PDAM. Previously, the management of units is done by each unit head. Each unit just submits the balance of their respective revenues and expenses. Some of the units deposit some money to the head office while some do not. No technical or financial report is available in this office. A reporting system was established by the new director in Nov 2009.
- SPAM IKK Amurang is located about 5 km from the city of District Amurang Barat. It serves two villages and a new housing area in District. Currently it serves 215 house connections. The SPAM IKK Amurang operates 24 hours a day.
- Basically the facilities and equipment constructed under the central Satker budget is still working and in good condition. Its water source is from the spring which is located about 150 m above sea level. The WTP and facilities meanwhile are about 75 m above the sea level.

- There are three staff members who operate the SPAM IKK Amurang: one coordinator, one operator, and one who collects bills.
- The crucial problem in this area is due to the condition of the existing system. The old treatment plants need much budget to renew its facilities and equipment. The new director has been active in bridging communication with District Office, and Dinas PU District, as well as provincial and central Satker.
- For water fee collection, the bill is around Rp 32,000-37,000 per month for SPAM IKK unit. The unit heads collect the payment through door to door system or through the unit. Basically the users of SPAM IKK Amurang are low income households. Hence the collection rate in this IKK is just around 50%. However, PDAM do not impose any penalty on them since they pay their bills as soon as they get their money.
- Operation and maintenance of treatment facilities:
  - The dosing pumps, distribution pumps and generator sets are still being used. At the time of visit, the team was not able to inspect directly the dosing pump condition since the key is kept by one of the unit staff. However, according to other staff, the dosing pumps are still being used.
- The financial problem of this SPAM IKK mostly concerns its inability to expand connection because there is no budget to install the distribution pipe.

<b>No. B-41</b>	<b>SPAM IKK: Suwawa</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Gorontalo	Gorontalo		Gorontalo	
Contact persons	Director and staffs	Head and staff	-	Head and staff	Head and staff

Water Source	River water	Water Treatment	RSF WTP FRP
System Capacity (L/s)	20	Number of House Connections	494

The following issues and probable causes found at on-site review of SPAM IKK:

- The water treatment plants constructed by SPAM IKK project scheme at Sub-District Suwawa were FRP type WTP Lombongo with 20 L/s capacity completed in 2006, and steel type WTP Suwawa with 20 L/s capacity which was completed in December 2009.
- Management, operation and maintenance of water supply facilities in Kabupaten Bone Bolango is under the responsibility of Badan Pengelola Air Minum (BPAM).
- WTP Lombongo site (SPAM IKK 2006):
  - The plant was never operated since its completion because of some discrepancy found during the commissioning test. The actual conveyed water from intake was only 6.4 L/s, which does not comply with the design of 20 L/s. Moreover, there is leakage on its plate member connection. The discrepancies were supposed to be repaired during maintenance period.
  - During the maintenance period, the intake structure located downstream of the Hulu Bone River was also damaged by river flood in 2007.
  - The present condition of WTP Lombongo is not operational and the FRP tank was being dismantled for major repairs. Considering the present condition of the FRP tank structure, it is predicted that the WTP will not be able to operate with the design capacity of 20 L/s.
  - Officially, operation of the WTP Lombongo was never handed over by the central IKK to the local government. Dinas PU Cipta Karya of Kabupaten Bone Bolango still refuses to accept the project.
  - According to Satker IKK Province of Gorontalo, the construction of WTP using FRP tank structure at another location in Gorontalo is also facing the same

problem on leakage.

- The intake for WTP Lombongo was already reconstructed and located at the same intake site of WTP Suwawa.
  
- WTP Suwawa site (SPAM IKK 2009):
  - The plant is made of packaged steel tanks with capacity of 20 L/s.
  - The intake and distribution process adopt gravity system.
  - Officially, the facility was temporarily handed over for operation by the central Satker IKK to Dinas PU District Bone Bolango in December 2009. This was confirmed through the copy of the Hand-Over Certificate given by Satker IKK Province. However, the Deputy Chief of Dinas PU District Bone Bolango denied that they already received such Hand-Over Certificate.
  - The operation of this facility was not yet officially handed over by Dinas PU District to BPAM of District Bone Bolango. Therefore, there is no official assignment of institution for managing and operating the WTP facility.
  - At present, the WTP facility is still on trial operation, and under unofficial monitoring of Dinas PU Kabupaten staff only.
  
- General problems for overall BPAM District Bone Bolango system are:
  - Poor coordination and organization between Dinas PU and BPAM District, i.e., the Chief of Dinas PU was also assigned as the head of BPAM, while the Deputy Chief of Dinas PU was also assigned as Technical Director of BPAM.

<b>No. B-42</b>	<b>SPAM IKK: Kwandang</b>	Survey date : May 17 ~ 21, 2010
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Responsible local agencies	PDAM/BLU	District		Province	
		PU	BAPPEDA	Satker	Cipta Karya
	Bone Bolango	Bone Bolango		Gorontalo	
Contact persons	Director and staffs	Staff	-	Head and staff	Head and staff

Water Source	River water	Water Treatment	RSF WTP Steel
System Capacity (L/s)	10	Number of House Connections	570

The following issues and probable causes found at on-site review of SPAM IKK:

- The SPAM IKK Kwandang facility was completed in December 2008 consisting of intake, raw water conveyor pipe, steel WTP with capacity of 10 L/s, and reservoir with 250 m<sup>3</sup> capacity.
- Presently the WTP Kwandang facility has two systems: Rapid sand filter package with capacity of 10 L/s which was constructed by SPAM IKK, and slow sand filter package with capacity of 5 L/s. Using local budget, the latter was constructed by modifying the existing reservoir to have a capacity of 240 m<sup>3</sup> and slow sand filter capacity of 5 L/s.
- Raw water is conveyed using pump equipment, while distribution from reservoir to house connection is by gravity system.
- Management, operation and maintenance of water supply facilities for Kabupaten Gorontalo Utara is under the responsibility of Badan Layanan Umum Daerah-Sarana Penyediaan Air Minum (BLUD-SPAM).