

# STANDARD OPERATING PROCEDURE (SOP)

## EARLY WARNING SYSTEM BEFORE BANJIR BANDANG OCCURRENCE IN CATCHMENT AREA OF KALIPAKIS IN KABUPATEN JEMBER



UNDER COOPERATION



YAYASAN PENGABDI MASYARAKAT  
(YPM)

*with*

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)



2011

## PREFACE

It is delivered gratitude to The God Almighty for the blessing that Yayasan Pengabdi Masyarakat (YPM) has finished creation of Standard Operating Procedure (SOP) Early Warning System before Banjir Bandang in Catchment Area of Kalipakis in Kabupaten Jember.

The SOP is created based on result of *Focus Group Discussion*, *Site Watching*, and *Table Top Exercise* that held on 17-18 September 2011 in Desa Pakis Kecamatan Panti Kabupaten Jember. This book consists of SOP Early Warning System in general for upstream area, middlestream area and downstream area of Catchment Area Kalipakis on: (1) normal condition; (2) rain and banjir bandang condition; (3) evacuation condition; and (4) post of flood disaster or return into normal condition.

Yayasan Pengabdi Masyarakat delivered gratitude to: (a) Japan International Cooperation Agency (JICA) for the trust to YPM for the creation of SOP; (b) Government of Kabupaten Jember that had given aids especially to Assistant II and Bakesbangpol Linmas; (c) Participant of Activity (Satlak Kabupaten Jember, Afdeling of Kahendran Plantation, Camat Panti within staff, as well as Head Desa Pakis within staff and also community).

Hopefully this SOP can give benefit for related stakeholders, especially for those communities who live in surrounded area of Catchment Area Kalipakis so that they can anticipate and reduce risk of banjir bandang disaster.

Jember, September 2011  
Yayasan Pengabdi Masyarakat  
Head,

Evita Soliha Hani

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## I. INTRODUCTION

Indonesia has high risk of natural disaster occurrence. This is caused by many factors starting from nature condition until human fault. Geologically, Climatologicaly, and geographically, Indonesia is included as disaster vulnerable area.

Geology structures in Indonesia had made the surface of nature in Indonesia becomes in series of mountains and valley as well as many rivers that results the potential of banjir bandang, landslide and erosion occurrence. Banjir bandang is as one of most often disaster that occurs (by 60%) in Indonesia. Banjir bandang generally occurs in west area of Indonesia in which this part area receives rainfall more amount than Indonesia in east area.

Kabupaten Jember is as one of west area of Indonesia that vulnerable to banjir bandang occurrence. Banjir bandang in Kabupaten Jember that results most serious victims had occurred in 2006 at Kecamatan Panti, and then at Silo was in 2008 and 2009.

The increase of disaster occurrence in Indonesia had encouraged every concerned side to be more aware and arrange the management of disaster countermeasure that had been occurred. One of foreign institution that conducts study of natural disaster in Kabupaten Jember is *Japan International Cooperation Agency (JICA)*. In 2010, JICA put trust on Yayasan Pengabdi Masyarakat (YPM) as partner to conduct activity of “Basic Research and Preparation for Sub Project of Early Warning and Early Evacuation”. In this case, YPM conducted the research at three disaster hazard locations in Kabupaten Jember, namely Kecamatan Panti, Kecamatan Sukorambi and Kecamatan Silo.

As continuation of research activity, YPM was trusted again to hold activity of *Focus Group Discussion, Site Watching, and Table Top Exercise* Early Warning System before Banjir Bandang occurrence to result *Standard Operating Procedure (SOP) Early Warning System Before Banjir Bandang* occurrence in DAS Kalipakis Kabupaten Jember.

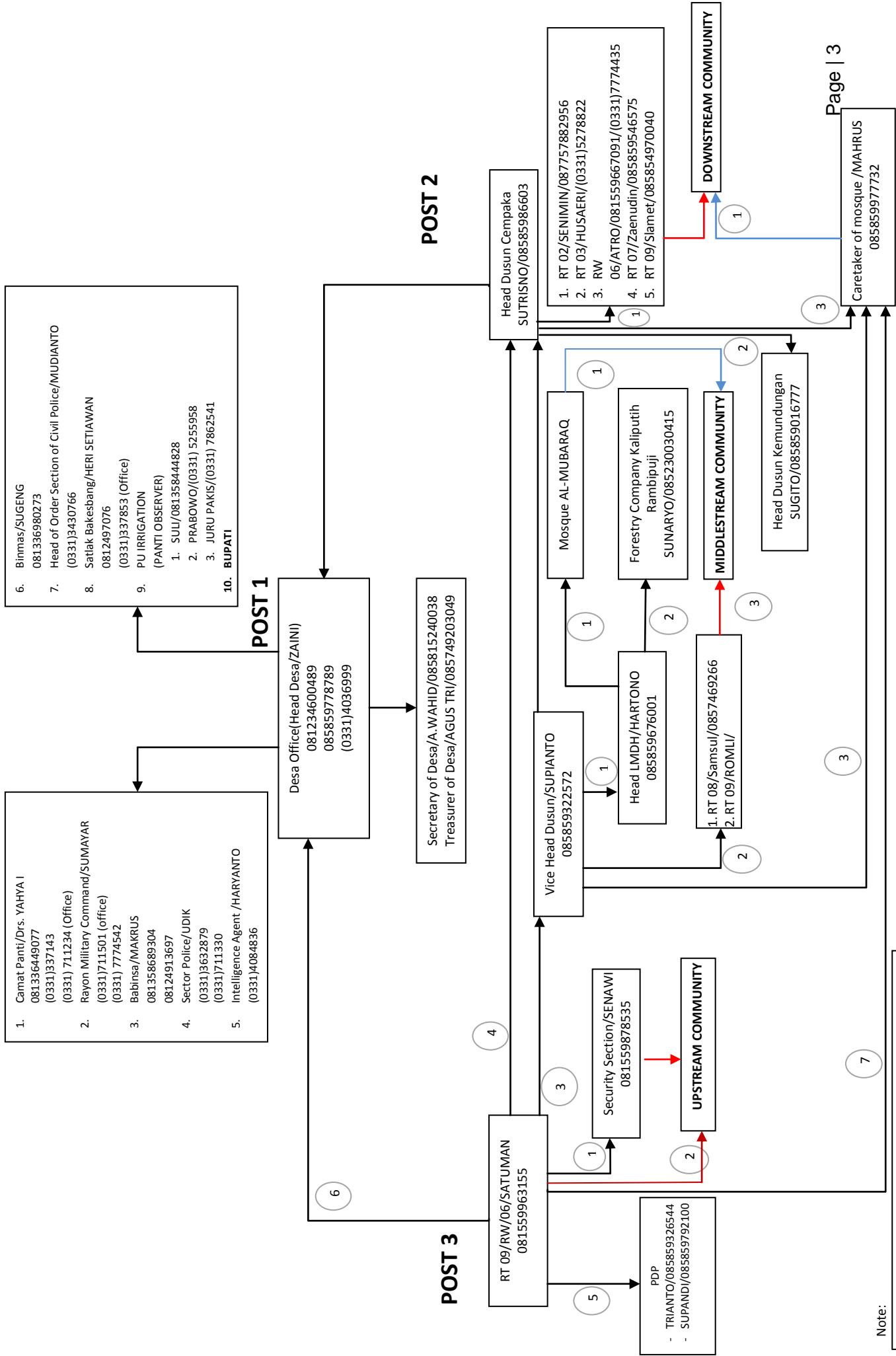
Early Warning System (EWS) is an arrangement of information delivery based on the prediction of threat to the community before the occurrence that may result risk. EWS has an objective to give warning so that the information receiver can immediately make preparedness and act as the existing condition, situation and in precise time. The main principle of EWS is to give quick information, accurate, appropriate target, easy to understand, trusted and sustainable information. Implementation of good and proper early warning system will be able to protect and save the community from banjir bandang threat.

Early warning system is as key of an effective risk reduction. This will be more effective if the system will be able to be recognized and understood by the community, and the result of detection can be informed to the community, especially for the community living in surrounding area of banjir bandang hazard. Therefore, Early warning system will be more effective if it is established into SOP.

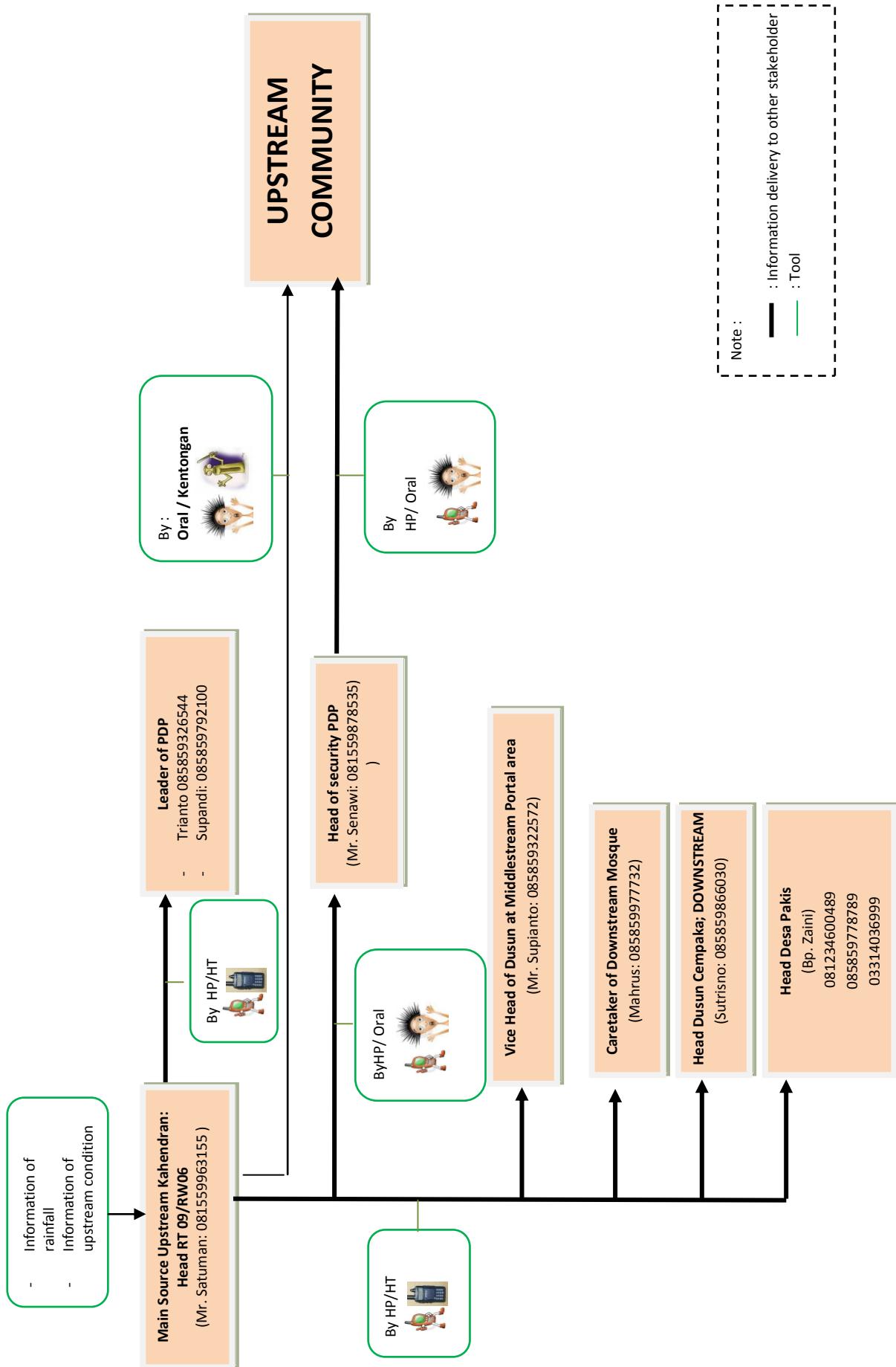
SOP should be able to be well-understood by all community so that it will be able to enhance the strong consciousness to make it as together necessities. SOP that created along with the community is a realistic and trustworthy, because the community know very well about the characteristic of their own area within the necessities.

SOP of early warning system before banjir bandang occurrence at Catchment Area (DAS) Kalipakis Kabupaten Jember is created based on various stages that had been created along with representative of Satlak Kabupaten Jember, Kecamatan Panti, community/local leader/local officer of Desa Pakis and Kahendran Plantation.

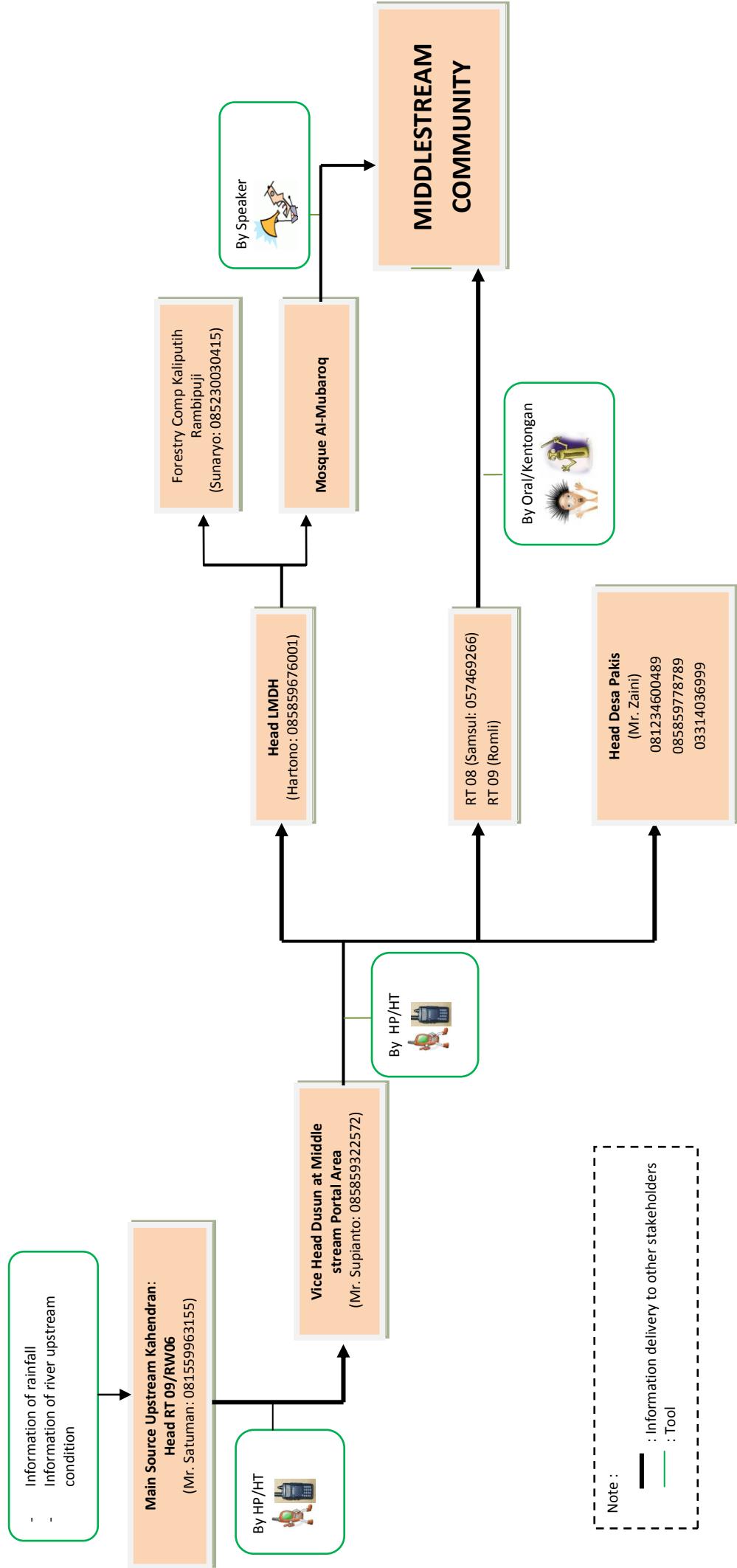
## II. SCHEME OF GENERAL SOP DAS KALIPAKIS



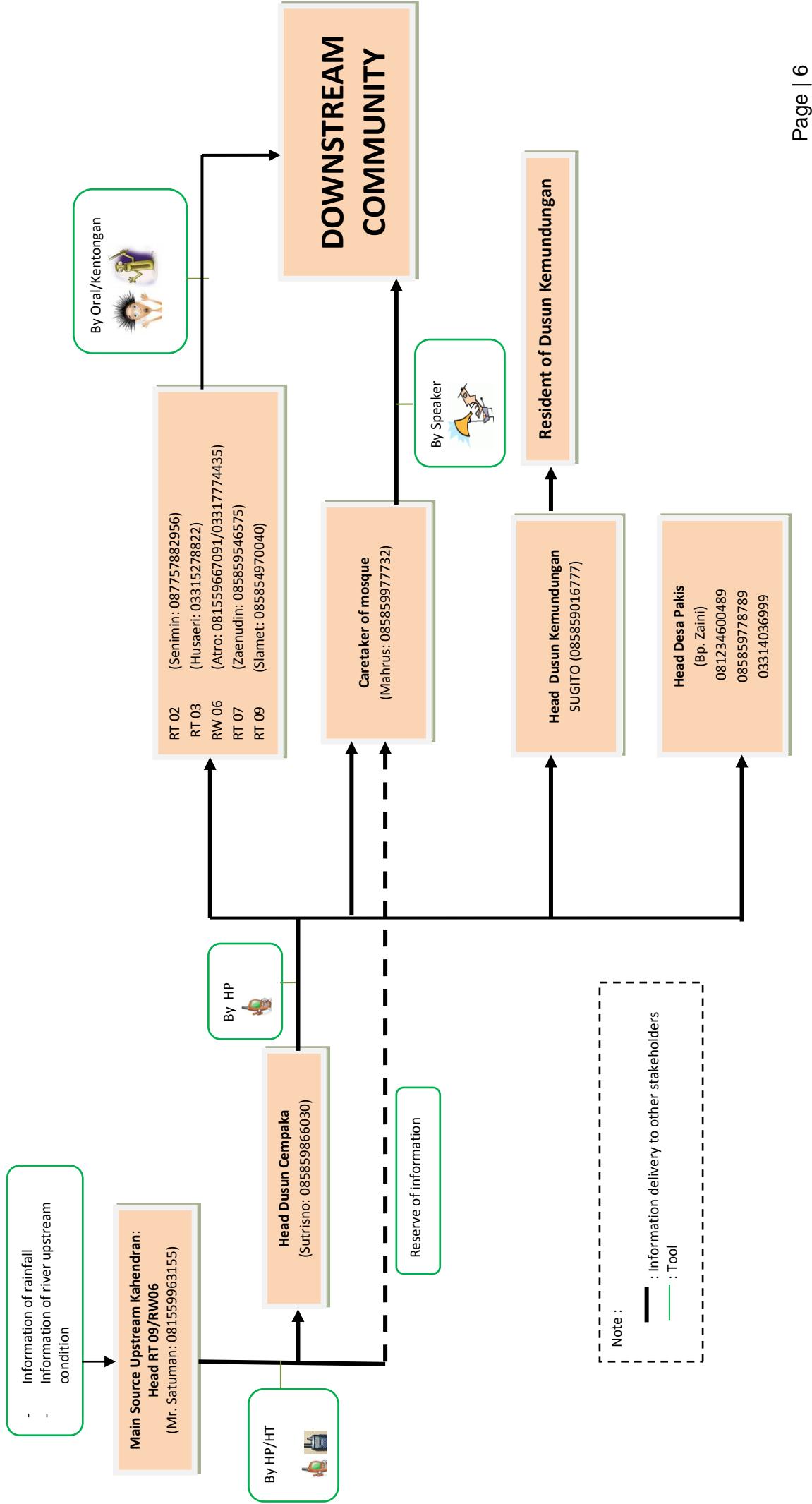
### III. SCHEME OF SOP UPSTREAM AREA DAS KALIPAKIS



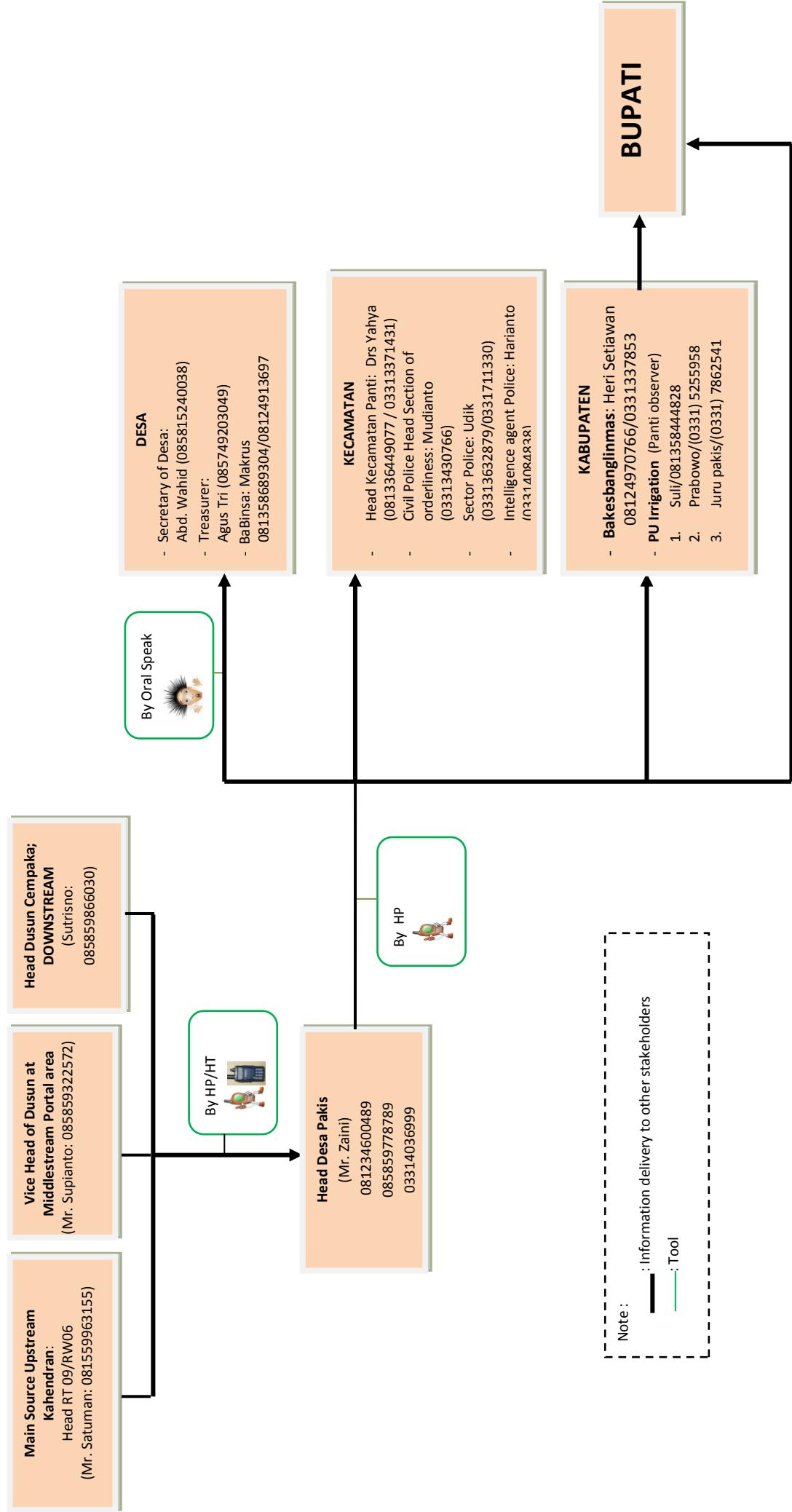
## IV. SCHEME OF SOP MIDDLESTREAM AREA DAS KALIPAKIS



## V. SCHEME SOP DOWNSTREAM AREA DAS KALIPAKIS



## VI. SCHEME OF SOP SATLAK PBP DAS KALIPAKIS



## **VII. EXPLANATION SOP SCHEME OF DAS KALIPAKIS**

### **7.1 Pattern of Communication**

Standard Operating Procedures (SOP) has two patterns of communication, namely: (1) horizontal communication pattern for upstream, middlestream and downstream area; dan (2) Vertical communication pattern is on Satlak PBP. Horizontal communication pattern as mentioned is as follow:

#### **SOP Upsteam Area of DAS Kali Pakis:**

- Information source in upstream area is Head of RT 09/RW06 (Mr. Satuman) who acts as coordinator whose also as informant, next is communicated by using hand phone or by oral to the security (Mr. Senawi). The information received from security will be informed into the community who live in upstream area by using kentongan and by oral, the time needed for the warning information is less than 10 minutes because houses of residents are close each other.
- Head of RT 09/RW06 (Mr. Satuman) make coordination with administrator of PDP Kahendran (Mr. Trianto and Supandi) and then continue by using hand phone to Vice Head of Dusun in Portal area (Mr. Supianto), Head of Dusun Cempaka (Mr. Sutrisno) and Administrator of Mosque in downstream (Mr. Mahrus)
- Head of RT 09/RW06 (Mr. Satuman) who acts as coordinator at Post 3 make coordination with Head Desa/Post 1 (Mr. Zaini).

#### **SOP Middlestream Area of DAS Kali Pakis**

- Vice Head of Dusun in Middle stream area /Portal (Mr. Supianto) who act as Head of Forest side Villagers (LMDH) (Mr. Hartono) by using hand phone as communication tool deliver information to head of RT 08 (Mr. Samsul) and Head of RT 09 (Mr. Romli),
- Vice Head of Dusun in Middle Stream area (at Portal) delivered information by using hand phone to Head of Dusun Cempaka (Mr.

- Sutrisno) and Mosque administrator in downstream (Mr. Mahrus) and head of desa Pakis (Mr. Zaini)
- Head of Forest side Villagers (LMDH) (Mr. Hartono) delivered information to Middle Stream area by using loud speaker in the Mosque Al Mubaroq, and next is making coordination with forestry company of Kaliputih Rambipuji (Mr. Sunaryo)
  - Head of RT 08 (Mr. Samsul) and Head of RT 09 (Mr. Romli) delivered information to the community in Middle Stream area by using kentongan and by oral.

#### **SOP Downstream Area of DAS Kali Pakis**

- Head of Dusun Cempaka (Mr. Sutrisno) act as coordinator and deliver information by using hand phone to Head of RT 02 (Mr. Senimin), Head of RT 03 (Mr. Husaeri), Head of RW 06 (Mr. Atro), Head of RT 07 (Mr. Zaenuddin), Head of RT 09 (Mr. Slamet) and Head of RT 10 (Mr. Rahman). Each head of RT deliver information to downstream community by using kentongan and by oral.
- Head of Dusun Cempaka (Mr. Sutrisno) delivered information to Head of Dusun Kemundungan (Mr. Sugito) and administrator of Mosque in Downstream area (Mr. Mahrus)
- Administrator of Mosque in Downstream area (Mr. Mahrus) delivered information to community in Downstream area by using loud speaker
- Head of Dusun Cempaka (Mr. Sutrisno) as coordinator for Post 3 make coordination with head of Desa/Post 1 (Bp. Zaini).

Meanwhile vertical communication pattern on SOP banjir bandang DAS Kalipakis is as follow:

### **SOP Satlak**

- Head of Desa/Post 1 (Mr. Zaini) that had conducted coordination with Post 2 and Post 3, deliver information by using hand phone to Secretary and Treasurer of Desa Pakis government officer.
- Head of Desa/Post 1 (Bp. Zaini) that had conducted coordination with Post 2 and Post 3 deliver information by using hand phone to Head of Kecamatan Panti (Drs. Yahya), Rayon Military Command (Mr. Sumayar), Military at Desa Level/Babinsa (Mr. Makrus), Sector Police (Polsek) Panti (Mr. Udk), Agent of sector Police Panti (Mr. Harianto), Bimas (Bp Sugeng), Civil Police/Satpol PP Head section of orderliness (Mr. Mudianto)
- Head Desa/Post 1 (Bp. Zaini) deliver information by using hand phone to coordinator of Satlak in Kabupaten, Bakesbang Linmas Kabupaten Jember (Mr. Heri), and next is to Bupati of Kabupaten Jember

## **7.2 Activity of Stakeholders in Certain Condition**

In general, the activities conducted by stakeholders in the management of banjir bandang disaster at DAS Kalipakis can be grouped into 4 conditions as follow.

### **1. Normal Condition**

No	Stakeholders	Activity
1.	Satlak Kabupaten (Bakesbang, Resort Police, District Military, Public Relation Office, Irrigation Agency, Health Agency, and other related agencies)	<ul style="list-style-type: none"><li>- Conduct coordination meetings of Satlak in Kabupaten level</li><li>- Make socialization about content of disaster law and landslide in hazard area</li><li>- Complement and check facilities as well as infrastructure of banjir bandang disaster.</li><li>- Conduct simulation activity of early warning system to community.</li><li>- Mapping of Disaster Hazard Area</li></ul>
2.	Kecamatan Leader /Muspika (Kecamatan, Sector Police, Rayon Military)	<ul style="list-style-type: none"><li>- Participate on Satlak kabupaten activity such as simulation and socialization of disaster countermeasure.</li><li>- Make coordination with Satlak Kabupaten in Disaster Countermeasure</li><li>- Make cooperation among Kecamatan leaders (Muspika) in disaster mitigation at Kecamatan scope.</li><li>- Make communication with Villages, especially in disaster hazard area</li></ul>
3.	Desa Pakis	<ul style="list-style-type: none"><li>- Participate on Satlak kabupaten activity such as simulation and socialization of disaster countermeasure or conduct independently by village.</li><li>- Make communication either with Kecamatan leaders (Muspika) or Satlak at Kabupaten level for disaster mitigation</li><li>- Reporting disaster hazard area that exist in desa Pakis</li><li>- Together with residents create of improve disaster early warning system for banjir bandang that consisting of: disaster hazard map creation, evacuation path and evacuation location.</li></ul>
4.	Head Dusun middlestream area (Pakis Utara and Portal area)	<ul style="list-style-type: none"><li>- Together with residents and related government create disaster early warning system for banjir bandang that consisting of: disaster hazard map creation, evacuation path and evacuation location.</li><li>- Prepare and check equipments that use in early warning system such as kentongan, speaker and</li></ul>

		<p>other communication tool.</p> <ul style="list-style-type: none"> <li>- Participate in disaster activity along with Satlak Kabupaten at each village level.</li> <li>- Put into habit for making communication with residents in upstream area and downstream area about climate and weather condition.</li> </ul>
5.	Head Dusun Downstream area (Dusun Cempoko and Kemundung)	<ul style="list-style-type: none"> <li>- Together with residents and related governments create disaster early warning system for banjir bandang consisting of: disaster hazard map creation, evacuation path and evacuation location.</li> <li>- Prepare and check equipments that use in early warning system such as kentongan, speaker and other communication tool.</li> <li>- Check function of water level sensor at dam cempoko of Kalipakis</li> <li>- Participate in disaster activity along with Satlak Kabupaten at each village level.</li> <li>- Put into habit for making communication with residents in upstream area and downstream area about climate and weather condition.</li> </ul>

## 2. Rain Condition

No	Stakeholders	Activity
1.	Upstream Community (Mr.Satuman Head RT 09 and administrator of PDP Afdeling Kahendran Plantation)	<ul style="list-style-type: none"> <li>- Give information periodically about rainfall condition in upstream area to residents in middlestream area and downstream area that rainfall level in upstream reaches level 3</li> <li>- Make coordination with Mr. Supiyanto in Middlestream area and downstream area (Head desa Pakis and Head dusun) to give information and expect that residents should start to prepare for evacuation.</li> <li>- Reminding residents to gather important documents, diploma, etc to be carried into evacuation site</li> </ul>
2.	Satlak Kabupaten (Bakesbang, Resort Police, District Military, Public Relation Office, Irrigation Agency, Health Agency, and other related agencies)	<ul style="list-style-type: none"> <li>- Make coordination among Satlak member in Kabupaten while keep waiting further information from Head Desa Pakis and Kecamatan Panti</li> <li>- Satlak will prepare supply of instant food for early aids if there is any evacuation.</li> <li>- PMI will be prepared and ready to help if there is evacuation to help the victim a.</li> <li>- PU Irrigation will help to prepare heavy equipments to handle if there is any collapse and change of river flow line, if necessary PU will prepare gabions for any possibility of disaster.</li> </ul>
3.	Kecamatan Leader /Muspika (Kecamatan, Sector Police, Rayon Military)	<ul style="list-style-type: none"> <li>- After receiving information, then make coordination among Kecamatan leaders (Head Kecamatan, Rayon Military and Sector Police), and will come to the site.</li> <li>- Reporting to Satlak Kabupaten about recent condition</li> <li>- Commander of Sector Police and Rayon Military as well as Kecamatan (Head section of orderliness) check preparedness of personnel.</li> <li>- Stay on alert for disaster post of Kecamatan</li> </ul>
4.	Desa Pakis	<ul style="list-style-type: none"> <li>- Make coordination with upstream, middlestream and village officers</li> <li>- Prepare for possibility of evacuation by preparing personnel and equipments</li> <li>- Check rainfall gauge in Desa Pakis office</li> <li>- Reporting condition to Kecamatan</li> <li>- Go for patrol</li> </ul>
5.	Head Dusun of middlestream area (Mr.Supiyanto)	<ul style="list-style-type: none"> <li>- Make communication with upstream area of Kahendran, downstream and head desa Pakis</li> <li>- Check water level in river by using water level gauge at dam cempoko of Kalipakis and report</li> </ul>

	(Pakis Utara and Portal area)	<ul style="list-style-type: none"> <li>- Inform residents through loudspeaker in mosque as well as through head RT and ask residents to stay away from river and prepare for evacuation if needed</li> </ul>
6.	Head Dusun Downstream Area (Dusun Cempoko and Kemundung)	<ul style="list-style-type: none"> <li>- Make communication with upstream area of Kahendran, downstream and head desa Pakis</li> <li>- Check water level in river by using water level gauge at dam cempoko of Kalipakis and report</li> <li>- Inform residents through loudspeaker in mosque as well as through head RT and ask residents to stay away from river and prepare for evacuation if needed</li> </ul>

### 3. Evacuation and Banjir Bandang Condition

No	Stakeholder	Activity
1.	Upstream Community (Mr.Satuman Head RT 09 and administrator of PDP Afdeling Kahendran Plantation)	<ul style="list-style-type: none"> <li>- Give warning to conduct evacuation if there is already exist symptoms for possibility of landslide and banjir bandang and go to evacuation site that had been determined before</li> <li>- Monitor condition and make sure that there is no resident still stay in the house and all have been evacuated.</li> <li>- Prepare emergency kitchen and establish emergency tents</li> <li>- Inform condition of evacuation to middlestream and downstream area</li> <li>- Report and make coordination with head desa Pakis as well as PDP leaders about recent condition</li> </ul>
2.	Satlak Kabupaten (Bakesbang, Resort Police, District Military, Public Relation office, Irrigation Agency, Health Agency, and other related agencies)	<ul style="list-style-type: none"> <li>- Make coordination with Kecamatan Panti and Desa Pakis</li> <li>- Make coordination among Satlak member</li> <li>- Make coordination with Resort Police, Civil police and District Military to prepare personnel.</li> <li>- Deploy of personnel as well as equipments to help evacuation process</li> <li>- PMI will help victims, PU irrigation will prepare heavy equipments to handle the collapse soil and change of river flow line if any, or if necessary PU will prepare gabions, meanwhile other agencies will work as each of their function and duties.</li> </ul>
3.	Kecamatan Leader /Muspika (Kecamatan, Sector Police, Rayon Military)	<ul style="list-style-type: none"> <li>- Make coordination with desa Pakis</li> <li>- Together with Satlak Kecamatan and village helping resident evacuation.</li> <li>- Make sure that all residents in disaster hazard area have been totally evacuated</li> <li>- Help desa Pakis in preparing emergency kitchen and emergency medical treatment</li> <li>- Report to Satlak Kabupaten</li> </ul>
4.	Head Desa Pakis	<ul style="list-style-type: none"> <li>- Head Desa will give instruction to village officers such as to head dusun, head RT, RW and public protection to help for evacuation process.</li> <li>- Instruct Head Dusun to distribute early logistic. Each Head RT in upstream and downstream will take responsible for each evacuation location. Public protection will check houses security.</li> <li>- Report to Kecamatan Panti</li> </ul>

		<ul style="list-style-type: none"> <li>- Go for patrol to surrounded area</li> </ul>
5.	Head Dusun of middlestream area (Mr.Supiyanto) (Pakis Utara and Portal area)	<ul style="list-style-type: none"> <li>- Make coordination with upstream and downstream</li> <li>- Inform progress condition that evacuation should be already started for middlestream area to residents through speaker or head RT and ask resident to stay away from river and go to evacuation site that has been determined.</li> <li>- Evacuate resident in hazard area (near river flow line)</li> <li>- Report and make coordination with head desa Pakis to prepare emergency kitchen and emergency medical treatment</li> </ul>
6.	Head Dusun Downstream Area (Dusun Cempoko and Kemundung)	<ul style="list-style-type: none"> <li>- Make coordination with upstream and middlestream area</li> <li>- Inform progress condition that evacuation should be started for downstream area to residents either by using speaker or head RT and ask residents to stay away from river area and go to evacuation site that has been determined</li> <li>- Evacuate resident in hazard area (near river flow line)</li> <li>- Report and make coordination with head desa Pakis to prepare emergency kitchen and emergency medical treatment</li> </ul>

#### 4. Post of Flood or Return to Normal Condition

No	Stakeholder	Activity
1.	Upstream Community (Mr.Satuman Head RT 09 and administrator of PDP Afdeling Kahendran Plantation)	<ul style="list-style-type: none"> <li>- Inform that rainfall condition in afdeling Kahendran (upstream) has been stopped and river flow is decreased by using hand-phone or HT to Head Desa Pakis, Dusun Pakis Utara (middlestream), Head Dusun Cempoko (downstream).</li> <li>- Evacuation is finished and make inventory of victim.</li> <li>- Report to Head Desa about condition in evacuation site.</li> <li>- Request for aid distribution that aimed for refugee especially instant food and medicine supply.</li> </ul>
2.	Satlak Kabupaten (Bakesbang, Resort Police, Military, Public Relation office, Irrigation Agency, Health Agency, and other related agencies)	<ul style="list-style-type: none"> <li>- Take over command in the evacuation site into centralized command for aid giving and information</li> <li>- Make inventory list for victims and damage by making coordination with Kecamatan and Village</li> <li>- Conduct emergency reparation, make coordination among Satlak and together with Bakesbang conduct survey to make sure whether it is safe condition or still danger</li> <li>- Give emergency aid</li> <li>- Report to Bupati</li> </ul>
3.	Kecamatan Leader /Muspika (Kecamatan, Sector Police, Rayon Military)	<ul style="list-style-type: none"> <li>- Gather report of victim list in evacuation site as well as other important informations and then report to Satlak Kabupaten.</li> <li>- Take responsibility for supervision and aid distribution</li> <li>- Conduct emergency reparation and make coordination among satlak and Bakesbang for survey.</li> </ul>
4.	Head Desa Pakis	<ul style="list-style-type: none"> <li>- Head Desa will give command to lead village officers such as head RT, RW and public relation office to enter disaster site and start for cleaning.</li> <li>- Aids start to be received and distribution to victim and refugee.</li> <li>- Gather report and list material loss as well as victims list and report to kecamatan</li> <li>- Together with Rayon Military Command and Public Protection for cleaning.</li> </ul>
5.	Head Dusun	<ul style="list-style-type: none"> <li>- Make victim list.</li> </ul>

	middlestream area (Mr.Supiyanto) (Portal area)	<ul style="list-style-type: none"> <li>- Report to Head Desa about condition in evacuation site.</li> <li>- Require for aids distribution to refugee especially for instant food and medicines.</li> </ul>
6.	Head Dusun Downstream Area (Dusun Cempoko and Kemundung)	<ul style="list-style-type: none"> <li>- Make victim list.</li> <li>- Report to Head Desa about condition in evacuation site.</li> <li>- Require for aids distribution to refugee especially for instant food and medicines.</li> </ul>

## VIII. SOP BANJIR BANDANG DAS KALIPAKIS IN CERTAIN CONDITION

### 8.1 Key persons of SOP Banjir Bandang at DAS Kalipakis

SOP Banjir Bandang at DAS Kalipakis will be conducted by each key persons or in charge person in the flow of SOP as shown in following table.

List name of Key person in Early Warning System and Evacuation of Banjir Bandang DAS Kalipakis

No.	Stakeholders	In charge person	Position	Telephone
1.	<b>Upstream Area</b> (Regional Plantation Company /PDP Afdeeling Kahendran)	Satuman Trianto	Head RT 09 Opsinder Kahendran	081 559 963 155 085 859 326 544
		Supandi	Vice of Opsinder Kahendran	085 859 792 100
		Senawi	Security of PDP	081 559 878 535
		Supianto	Vice Head Dusun Pakis Utara	085 859 322 572
2.	<b>Middlestream Area</b> (Dusun Pakis Utara)	Samsul	Head RT 08	08574926073
		Romli	Head RT 09	-
		Hartono	Head LMDH	085 859 676 001
		Sunaryo	Forestry Comp Kaliputih Rambipuji	085 230 030 415
3.	<b>Downstream Area</b> (Dusun Cempoko and Dusun Kemundungan)	Sutrisno	Head Dusun Cempoko	085 859 866 030
		Senimin	Head RT 02	087 757 882 956
		Husaeri	Head RT 03	0331 527 8822
		Atro	Head RT 06	081 559 667 091 0331 7774435
		Zaenudin	Head RT 07	085 859 546 575
		Slamet	Head RT 09	085 549 70040
		Rahman	Head RT 10	081 559 551 073
		Mahrus	Mosque Caretaker	085859977732

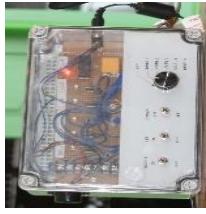
4.	Desa Pakis	Sugito Zaini	Head Dusun Kemundungan Head Desa Pakis	085859016777 081 234 600 489 085 859 778 789 0331 403 6999
		A Wahid	Secretary of Village	085815240038
		Agus Tri Laksono Makrus	Treasurer of Village Babinsa Pakis	085749203049 081 358 689 304 081 249 136 97
5.	Kecamatan Panti	Drs. Yahya I.	Head Kecamatan Panti	081 336 449 077 0331 337 143 (0331) 711234 (Kantor)
		Udik	Sector Police of Panti	0331 363 2879 0331 711 330
		Harianto	Police Agent Panti	0331 408 4836
		Sumayar	Rayon Military Command Panti	0331 711 501 0331 777 4542
		Sugeng	Binmas	081 336 980 273
		Heri Setiawan	Satlak PBP/Bakesbangpol Linmas	081 249 707 66 0331 337 853
6.	Kabupaten Jember	Suli Prabowo Juru Pakis	Panti Observer PU Irrigation PU Irrigation	081358444828 (0331) 52555958 (0331) 7862541

## 8.2 Monitoring Equipments of Early Warning System DAS Kalipakis

Besides key person which is as activator in the flow of SOP DAS Kalipakis, it also needs monitoring equipments. Monitoring equipments in early warning system for banjir bandang at DAS Kalipakis which were aid from *Japan International Cooperation Agency* (JICA) is shown in following table.

Monitoring equipments of Early Warning System from JICA at Das Kali Pakis Desa Pakis Kecamatan Panti Kabupaten Jember

No	Type of equipment	Position	In charge Officer	Note
1.	Automatic Rain Gauge (weather system) (by battery energy supply)	Af deling Kahendran	1) PDP Af deling Kahendran 2) Head RT 09 in Kahendran	 <i>Automatic Weather System</i>

No	Type of equipment	Position	In charge Officer	Note
2.	Automatic Rain Gauge (weather system)	Desa Pakis Office	Head Desa Pakis	 <b>Display screen</b> <p>Rainfall Gauge</p>
3.	Water Level Sensor	Dam Cempoko of Kali Pakis	Head Dusun Cempoko	 <b>Warning Sensor Box</b> <p>Water Level Sensor</p>

No	Type of equipment	Position	In charge Officer	Note
4.	Rainfall sensor	Mosque at Dusun Cempoko	Head Dusun Cempoko	 

### 8.3 SOP Early Warning System for Banjir Bandang at DAS Kalipakis in Certain Condition

#### Normal Condition (Condition 1)

: 0

: 0

: Normal

No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS Kalipakis (Kahendran Plantation)	<p>1. Head RT 09 (Satuman) Others :</p> <p>1. Opsinder of Kahendran Plantation (Trianto) 2. Vice Opsinder Kahendran Plantation (Supandi) 3. Security Kahendran Plantation (Senawi)</p>	<ul style="list-style-type: none"> <li>- Monitoring the condition of early warning system.</li> </ul>	<ul style="list-style-type: none"> <li>- Check the function of rainfall gauge.</li> <li>- Maintain and check the function as well as energy supply for communication tool: HP, HT, dan speaker.</li> </ul>	 

			<ul style="list-style-type: none"> <li>- Make communication with middlestream and downstream of DAS concerning Kalipakis with weather and river condition of Kali Pakis.</li> </ul>	<ul style="list-style-type: none"> <li>- Make contact via HP and HT to           <ul style="list-style-type: none"> <li>a) Head Desa Pakis (Zaini)</li> <li>b) Vice Head Dusun of Pakis Utara (Supianto)</li> <li>c) Head Dusun of downstream Dusun Cempoko (Sutrisno)</li> </ul> </li> <li>- Normal activity.</li> <li>- Make communication area with upstream concerning weather and river condition of Kali Pakis.</li> </ul>	 	Handphone	HT	
2.	Middlestream Area DAS Kalipakis (Dusun Pakis Utara)	1. Vice Head Dusun Pakis Utara (Supianto)	<ul style="list-style-type: none"> <li>- Head Dusun Cempoko (Sutrisno)</li> </ul>	<ul style="list-style-type: none"> <li>- Normal activity.</li> <li>- Monitoring condition of equipments of early warning system.</li> <li>- Make communication with upstream concerning weather condition and Kalipakis river.</li> </ul>	<ul style="list-style-type: none"> <li>- Receive contact via HP or HT with Head RT 09 Kahendran Plantation (Mr. Satuman)</li> </ul>	 	Handphone	HT
3.	Downstream Area of DAS Kalipakis (Dusun Cempoko)	1. Head Dusun Cempoko (Sutrisno)		<ul style="list-style-type: none"> <li>- Normal activity.</li> <li>- Monitoring function of water level in dam cempoko</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring function of water level in dam cempoko</li> <li>- Receive contact via HP or HT from Head RT 09 Kahendran Plantation (Mr. Satuman)</li> </ul>	 	1. Water level gauge	2. Communication Tool
4.	Desa Pakis	Head Desa Pakis (Mr. Zaini)		<ul style="list-style-type: none"> <li>- Normal activity.</li> <li>- Monitoring condition of equipments of early warning system.</li> <li>- Make communication with upstream concerning weather condition and Kalipakis river.</li> </ul>	<ul style="list-style-type: none"> <li>- Check the function of rain gauge equipments at desa Pakis office</li> <li>- Receive contact via HP or HT from Head RT 09 Perkebunan Kahendran (Mr. Satuman)</li> </ul>	 	Handphone	HT

		 	Handphone HT
5.	Kecamatan Panti	Camat Panti (Drs. Yahya I.)	<p>Normal activity.</p> <ul style="list-style-type: none"> <li>- Make communication with Head Desa Pakis concerning weather and river condition of Kalipakis.</li> </ul> <p>Receive contact via HP or HT with Head Desa Pakis</p>
6.	Kabupaten Jember	Satlak PB : Bakesbangpol Satiak PBP (Heri Setiawan).	<p>Normal activity while waiting for report/information.</p>

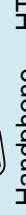
### Condition of Attention (Condition 2)

Rainfall Level : 1 (30 mm/Hour)  
 Water Level : 1 (100 Cm)  
 Status : Attention

No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS Kalipakis (Kahendran Plantation)	1. Head RT 09 (Satuman) Others : 1. Opsinder of Kahendran Plantation (Trianto) 2. Vice Opsinder Kahendran Plantation (Supandi) 3. Security Kahendran Plantation (Senawi)	– Monitoring of recent condition – Head RT (Mr. Satuman) make coordination among stakeholders in plantation – Head RT (Mr. Satuman) give information to in charge stakeholders in outside of PDP Plantation – Give information to local resident about current condition	– Measure and monitor rainfall condition on rainfall gauge – Make coordination each other with opsinder (Trianto), vice opsinder (Supandi), security (Senawi) about rainfall level 1 condition/ <b>on Status of Attention</b> – Send information about rainfall condition and water level condition of upstream that already in <b>Attention</b> status (rainfall is 30 mm), to: a. Head Desa Pakis (Zaini) b. Vice Head Dusun Pakis Utara (Supianto) c. Head Dusun Cempoko (Sutrisno)	 Rainfall gauge  Handphone HT
2.	Middlestream DAS Kalipakis	Area Dusun Utara (Dusun)	Vice Head Dusun Pakis –	– Make coordination with Kahendran	– Receive information and make coordination with Kahendran
					Communication tool

	Pakis Utara)	<ul style="list-style-type: none"> <li>- Plantation coordination with LMDH and RT 08 and 09</li> <li>- Report condition</li> </ul>	<ul style="list-style-type: none"> <li>- Plantation (Mr. Satuman) about rainfall condition</li> <li>- Inform via HP/HT to head LMDH (Hartono) and Head RT 08 (Samsul) as well as RT 09 (Romli) that information from upstream is that rainfall reach 30 cm (level 1) to be aware</li> <li>- Continue information delivery via HP/HT to Forestry Company of Kaliputih Rambipuji Asper (Sunaryo) conducted by LMDH (Hartono).</li> <li>- Reporting to Head Desa Pakis (Zaini)</li> </ul>	    Handphone HT
3.	Downstream Area of DAS Kalipakis (Dusun Cempoko)	<ul style="list-style-type: none"> <li>1. Head Dusun Cempoko (Sutrisno)</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination with Kahendran Plantation</li> <li>- Make coordination with RT and instruct head RT to be more aware</li> <li>- Make coordination with Head Dusun Kemundungan</li> <li>- Reporting recent condition</li> </ul>	<p>1. Water level gauge</p>  <p>2. Communication tool</p>   Handphone HT
			<ul style="list-style-type: none"> <li>- Receive contact via HP or HT from Head RT 09 of Kahendran Plantation (Mr. Satuman) about rainfall condition</li> <li>- Check water level condition in water level gauge at the river of dam cempoko Kalipakis</li> <li>- Make contact via HP/HT with: <ul style="list-style-type: none"> <li>a) Head RT 02 (Senimin)</li> <li>b) Head RT 03 (Husaeri)</li> <li>c) Head RW 06 (Atro)</li> <li>d) Head RT 07 (Zainudin)</li> <li>e) Head RT 09 (Slamet)</li> <li>f) Head RT 10 (Rahman)</li> </ul> </li> </ul>	

4.	Desa Pakis	<p>Head Desa Pakis (Zaini)</p> <ul style="list-style-type: none"> <li>- Monitoring condition of rain equipments</li> <li>- Make coordination with Kahendran plantation</li> <li>- Make coordination with Head Dusun to be more aware</li> <li>- Reporting recent condition to Kecamatan</li> </ul>	<p>1. Rainfall gauge</p>  <p>2. Communication tool</p>  <p>Handphone HT</p> <p>– Reporting recent condition (rainfall and water level on level 1) to:</p>

		a. Kecamatan Panti (Camat Panti/Yahya) b. Sattak Kabupaten (Heri/Bakesbang)	
5.	Kecamatan Panti  1. Camat Panti (Drs. Yahya I.)	<ul style="list-style-type: none"> <li>- Normal activity.</li> <li>- Make communication with Head Desa Pakis concerning with river condition of Kalipakis.</li> <li>- Prepare disaster post of kecamatan and check facilities</li> <li>- Reporting recent condition to Sattak Kabupaten</li> </ul>	  <p>– Receive contact via HP or HT from Head Desa Pakis</p> <p>– Make coordination among Kecamatan Leaders (Muspika) of Kecamatan Panti that rainfall condition in Pakis reaches 30 cm and river water level 1 as follow:</p> <ul style="list-style-type: none"> <li>a. Civil Police Head of Orderliness (Mudianto)</li> <li>b. Rayon Military Command Panti (Captain. Sumayat)</li> <li>c. Sector Police Panti (Udik)</li> </ul> <p>– Prepare disaster post of kecamatan</p> <p>– Reporting recent condition to Sattak Kabupaten (Heri/Bakesbangpol Linmas)</p>
6.	Kabupaten Jember  1. Bakesbangpol Limmas/ Sattak PBP (Heri Setiawan)	<b>Sattak PB:</b>	  <p>– Normal activity.</p> <p>– Receive information from Head Desa Pakis as well as Kecamatan Panti, and make coordination among member Sattak</p> <p>– Receive contact via HP or HT from Head Desa Pakis (Zaini) and Kecamatan (Yahya)/Camat Panti</p> <p>– Sattak (Bakesbang/Heri) make coordination about information</p>

	<p>concerning weather and river condition of Kalipakis.</p> <p>report from Desa Pakis and Kecamatan Panti with related agencies as Satlak member :</p> <ul style="list-style-type: none"> <li>a. PMI</li> <li>b. PU Pengairan</li> <li>c. Other related agencies of Satlak member</li> </ul> <p>- Make coordination among Satlak member to prepare facilities and equipments that may be needed for the possibility of disaster occurrence while waiting for further information</p>

### Condition of Aware (Condition 3)

Rainfall Level	: 2 (60 mm/hour)
Water Level	: 2 (120 cm)
Status	: Aware

No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS (Kahendran Plantation)	1. Head RT 09 (Satuman) Others : 1. Opsinder of Kahendran Plantation (Trianto) 2. Vice Opsinder Kahendran Plantation (Supandi) 3. Security Kahendran Plantation (Senawi)	- Monitor weather condition recent - Inform to related stakeholders - Give announcement to resident that flood status is <b>AWARE</b> and it is expected to make preparation of evacuation.	- Monitor using existing tool intensively and also see upstream river condition. - Send information about rainfall level that already on status of <b>AWARE</b> to : 1. Security of PDP (Senawi) 2. Opsinder (Trianto) and Vice Opsinder (Supianto) of Kahendran Plantation 3. Vice Head Dusun Pakis Utara (Supianto) 4. Head Dusun Cempoko (Sutrisno) 5. Head Desa Pakis (Zaini)	1. Rainfall gauge  2. Communication tool  3. Speaker 
2.	Middlestream Area DAS Pakis (Dusun Pakis Utara)	1. Vice Head Dusun Pakis Utara (Supianto)	- Make coordination with Plantation. - Make coordination with LMDH and Forestry company	- Receive progress of information about rainfall and upstream condition via HP/HT from Kahendran Plantation (Mr. Satuman) about rainfall condition	1. Communication tool

		<p> Handphone HT</p> <p> 2. Speaker</p>	<p>that on level 2.</p> <p>Inform via HP/HT to :</p> <ul style="list-style-type: none"> <li>a. Head LMDH (Hartono)</li> <li>b. Head RT 08(Samsul) and RT 09 (Romli)</li> <li>c. RT 09 (Romli)</li> </ul> <p>That information from upstream mention rainfall reach 60 cm level 2 and enter <b>AWARE STATUS</b></p> <p>Continue information via HP/HT to Asper Forestry Company Kaliputih Rambipuji (Sunaryo) by LMDH (Hartono).</p> <p>Instruct LMDH (Hartono) to inform the community about <b>AWARE</b> condition and make preparation of evacuation by using mosque speaker.</p> <p>Instruct Head RT 08 (Samsul) dan RT 09 (Romli) to give information by oral to residents to be more aware and make preparation for evacuation if needed</p> <p>Report recent condition to Head Desa Pakis (Zaini)</p>	<p>1. Water level gauge</p> 
3.	Downstream Area of DAS Kalipakis Cempoko)	<p>1. Head Dusun Cempoko (Sutrisno)</p>	<p>Make coordination with Kahendran Plantation (Mr. Satuman)</p> <p>Check water level</p>	<p>Receive contact via HP and HT from Head RT 09 (Kahendran Plantation)</p> <p>Check river water level in water</p>

	<p>gauge in Kali Pakis river</p> <ul style="list-style-type: none"> <li>Make coordination with Head RT and instruct Head RT to be more aware by the status of <b>AWARE</b></li> <li>Make coordination with Head Dusun Kemundungan</li> <li>Reporting recent condition</li> </ul>	<p>level gauge at dam cempoko of Kali Pakis river</p> <ul style="list-style-type: none"> <li>– Make contact via HP/HT to:           <ul style="list-style-type: none"> <li>a) Head RT 02 (Seminin)</li> <li>b) Head RT 03 (Husseari)</li> <li>c) Head RW 06 (Atri)</li> <li>d) Head RT 07 (Zainudin)</li> <li>e) Head RT 09 (Slamet)</li> <li>f) Head RT 10 (Rahman)</li> </ul> </li> <li>– Inform to Head Dusun Kemundungan (Sugito) about rainfall information in upstream from plantation and water level in Kali Pakis that enter level 2</li> <li>– Reporting to head desa Pakis (Zaini) about information from upstream and checking result of water level in river Kali Pakis that enter level 2</li> <li>– Instruct to caretaker of mosque (Mahrus) to widespread information that on <b>AWARE</b> status to the residents by using speaker and make preparation of evacuation if needed</li> </ul>	<p><b>2. Communication tool</b></p>    <p>Handphone HT</p> <p><b>3. Speaker</b></p> 	 <p><b>1. Rainfall gauge</b></p>
4.	Desa Pakis	Head Desa Pakis (Zaini)	<ul style="list-style-type: none"> <li>– Receive and record information from upstream, middlestream and downstream about AWARE status</li> </ul>	<ul style="list-style-type: none"> <li>– Receive information via HP or HT from Head RT 09 Kahendran Plantation (Mr. Satuman).</li> <li>– Record incoming information from upstream area, middlestream area and</li> </ul>

		2. Communication tool
<ul style="list-style-type: none"> <li>- Check rain gauge in Desa Pakis office</li> <li>- Contact Head Dusun to make coordination</li> <li>- Check and prepare facilities as well as make patrol</li> <li>- Report recent condition</li> </ul>	<ul style="list-style-type: none"> <li>- Check rainfall condition and compare rainfall of upstream and downstream in the rain gauge at desa Pakis office</li> <li>- Contact Head dusun Pakis Utara (Supianto) and Head dusun Cempoko (Sutrisno) to check information and instruct to monitor recent condition and make coordination each other among dusun , as well as informing the residents about <b>AWARE status</b> and to make preparation for evacuation if needed.</li> <li>- Make a patrol around disaster hazard area in Desa Pakis to check progress condition</li> <li>- Contact secretary of desa (A. Wahid) and treasurer of desa to prepare desa office and facilities for possibility of evacuation</li> <li>- Reporting recent condition to : <ul style="list-style-type: none"> <li>a. Kecamatan Panti (Camat Panti/Yahya)</li> <li>b. Satlak (Heri/Bakesbang)</li> </ul> </li> </ul>	  Handphone      HT

<b>5.</b>	Kecamatan Panti	<b>1.</b> Camat Panti (Drs. Yahya I)	<ul style="list-style-type: none"> <li>- Make communication with Head Desa Pakis concerning weather and river condition of Kalipakis.</li> <li>- Prepare disaster post of kecamatan and check facilities</li> <li>- Reporting recent condition to Sattak Kabupaten</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination among Kecamatan Leaders (Muspika) Kecamatan Panti that rainfall condition in Pakis reaches 60 cm and river water level 2 that already on <b>AWARE</b> status to:           <ul style="list-style-type: none"> <li>a. Civil Police Head of Orderliness Kecamatan (Mudianto)</li> <li>b. Rayon Military Command Panti (Capt. Sumayyar)</li> <li>c. Sector Police Panti (Udik)</li> </ul> </li> <li>- Prepare disaster post of kecamatan and prepare personnel for any possibility of helping evacuation if needed in hazard area</li> <li>- Reporting recent condition to Sattak Kabupaten (Heri/Bakesbangpol Linmas)</li> </ul>	 	Handphone HT
		<b>Sattak PB:</b> 2. Bakesbangpol Linmas/ Sattak (Heri Setiawan)	PBP	<ul style="list-style-type: none"> <li>- Receive information from Head Desa Pakis as well as Kecamatan Panti, and make coordination among Sattak member concerning weather and river condition of Kalipakis.</li> </ul>	 	Handphone HT
<b>6.</b>	Kabupaten Jember					

	<p>agencies as Satlak member :</p> <ul style="list-style-type: none"> <li>a. PMI</li> <li>b. PU Pengairan</li> <li>c. Other related agencies of Satlak member</li> </ul> <p>- Make coordination among Satlak member to prepare facilities and equipments that may be needed for the possibility of disaster occurrence while waiting for further information</p>

#### Condition of Evacuation (Condition 4)

Rainfall Level : 3 (90 mm/hour)  
 Water Level : 3 (140 Cm)

Status : Evacuation

No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS (Kahendran Plantation)	<p>1. Head RT 09 (Satuman)</p> <p>Others :</p> <p>1. Opsinder of Kahendran Plantation (Trianto)</p> <p>2. Vice Opsinder (Supandi)</p> <p>3. Security Kahendran Plantation (Senawi)</p>	<ul style="list-style-type: none"> <li>- Monitor weather condition</li> <li>- Inform to related stakeholders that rainfall level is on level</li> <li>3.</li> <li>- Instruct resident to go for evacuation</li> <li>- Conduct evacuation process together with plantation residents</li> </ul>	<ul style="list-style-type: none"> <li>- Keep monitoring recent rainfall condition, water level and possibility of soil crack by using existing equipments if the condition is still possible for this checking.</li> <li>- Send information about rainfall level, water level that it is on level</li> <li>3 which means EVACUATION to :</li> </ul> <ol style="list-style-type: none"> <li>1. Security of PDP (Senawi)</li> <li>2. Opsinder (Trianto) and Vice Opsinder (Supianto) of Kahendran Plantation</li> <li>3. Vice head Utara (Supianto)</li> <li>4. Head Dusun (Sutrisno)</li> <li>5. Head Desa Pakis (Zaini)</li> </ol>	   

	<p>a. palankeen</p>  <p>b. Tent</p>  <p>c. loader vehicle</p> <p>Evacuation site:</p> 	<p>1. Communication tool</p>   <p>Handphone HT</p> <p>2. Speaker and kentonan</p>
2.	<p>Middlestream Area DAS Kalipakis (Dusun Pakis Utara)</p> <p>Vice Head Dusun Pakis Utara (Supianto)</p> <ul style="list-style-type: none"> <li>- Make coordination with Plantation</li> <li>- Inform resident to go for evacuation.</li> <li>- Help resident in conducting evacuation.</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination with kahendran Plantation (Mr. Satuman) about rainfall level, water level and recent landslide.</li> <li>- Instruct resident of Dusun Pakis Utara to go for EVACUATION to provided site.</li> <li>- Make coordination with:           <ul style="list-style-type: none"> <li>1. Head LMDH (Hartono)</li> <li>2. Head RT 08(Samsul) and RT 09 (Romli)</li> <li>3. To help resident in conducting EVACUATION and reminding</li> </ul> </li> </ul>

	<p>each other about rainfall conditions as well as water level that reached level 3 and also informing to residents for evacuating into safer place.</p> <ul style="list-style-type: none"> <li>- Report to Head Desa Pakis (Zaini) about resident evacuation condition</li> </ul>	 Evacuation tool: 	<p>a. Palankeen</p> 	<p>b. Tent</p> 	<p>c. loader vehicle</p>	<p>Evacuation site:</p> 	<p>1. Water level gauge</p> 
3.	Downstream Area of DAS Kalipakis (Dusun Cempoko)	Head Dusun Cempoko (Sutrisno)	<ul style="list-style-type: none"> <li>- Make coordination with Plantation</li> <li>- Check water level gauge in Kali pakis river</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination with Plantation</li> <li>- Check water level gauge in Kali pakis river</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination with Plantation</li> <li>- Check water level gauge in Kali pakis river</li> </ul>	<ul style="list-style-type: none"> <li>- Make coordination with Mr. Kahendran plantation (Mr. Satuman) about rainfall level, water level and recent landslide occurrence.</li> </ul>	

<ul style="list-style-type: none"> <li>- Inform resident to go for evacuation.</li> <li>- Help the resident to conduct evacuation.</li> </ul>	<p>- Check water level in water level gauge at dam cempoko of Kali Pakis river</p> <p>- Instruct resident of Dusun Cempoko to EVACUATE into provided site.</p> <p>- Make coordination with:</p> <ol style="list-style-type: none"> <li>1. Head RT 02 (Seminin)</li> <li>2. Head RT 03 (Husnaeri)</li> <li>3. Head RW 06 (Atri)</li> <li>4. Head RT 07 (Zainudin)</li> <li>5. Head RT 09 (Slamet)</li> <li>6. Head RT 10 (Rahman)</li> </ol> <p>To help resident in conducting EVACUATION and reminding each other that rainfall condition and water level is on level 3 and inform to resident for going untilk safe EVACUATION site.</p> <p>- Instruct caretaker of mosque (Mahrus) to widespread information of <b>EVACUATION</b> status to residents by using speaker and to immediately conduct evacuation into safer place.</p> <p>- Inform Head Dusun Kemundungan (Sugito) about information of rainfall in upstream received from plantation and evacuation condition</p> <p>- Report to Head Desa Pakis (Zain) about resident evacuation condition</p> <p><b>2. Communication tool</b></p>   <p>Handphone HT</p> <p><b>3. Speaker and Kentongan</b></p>  <p><b>4. Evacuation tool:</b></p>  <p>a. Palankeen</p>  <p>b. Tent</p>  <p>c. loader vehicle</p>
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		5. Evacuation site:		
4.	Desa Pakis	Head Desa Pakis (Zaini)	<ul style="list-style-type: none"> <li>- Make coordination with plantation</li> <li>- Check rain gauge in Desa pakis office</li> <li>- Inform resident to conduct evacuation.</li> <li>- Help resident in conducting evacuation.</li> </ul>	<p>1. Rainfall gauge</p>  <ul style="list-style-type: none"> <li>- Make coordination Plantation (Mr. Satuman) about rainfall level, water level and recent landslide occurrence.</li> <li>- Record incoming information from upstream area, middlestream area and downstream area.</li> <li>- Check rainfall condition and compare rainfall of upstream and downstream in the rain gauge at desa Pakis office</li> <li>- Instruct task force at village level secretary of village (A. Wahid) and treasurer of village (Agus) to help resident in conducting EVACUATION and reminding each other that rainfall condition and water level is on level 3 and inform resident to go for EVACUATION into safer place.</li> <li>- Reporting that resident conduct EVACUATION to:</li> </ul>
				  Handphone HT

		a. Kecamatan Panti (Camat Panti/Yahya) b. Sattak Kabupaten (Heri/Bakesbang)	 
5.	Kecamatan Panti	<p>2. Camat Panti (Drs. Yahya I.)</p> <ul style="list-style-type: none"> <li>- Make coordination with plantation about recent weather condition.</li> <li>- Help resident in conducting evacuation</li> <li>- Reporting recent condition.</li> </ul>	<p>Make coordination with head Desa Pakis (Zaini) about resident evacuation (Location, number evacuees, needs)</p> <p>Prepare and deploy personnel as well as activating disaster post for 24 hours and together with Kecamatan leader (Muspika) Kecamatan Panti helping evacuation by using facilities such as car, palankeen, etc to help evacuation process.</p> <p>Reporting recent condition (rainfall level and water level on level 3) and also about refugee condition in Kahendran Plantation and Desa Klungkung to Sattak Kabupaten (Hery Setiawan Bakesbang).</p>
6.	Kabupaten Jember	<p><b>Sattak PB:</b></p> <p>3. Bakesbangpol Linmas/ Sattak PBP (Heri Setiawan)</p>	  <p>Make coordination with Desa Pakis (Zaini) and Kecamatan Panti (Yahya) about resident evacuation (Location, number evacuees, needs).</p> <p>Together with Kabupaten leader</p>

	<p>condition.</p> <p>(Muspidia) help the evacuation by using facilities such as car, palankeen, etc and prepare aids during evacuation process.</p> <ul style="list-style-type: none"> <li>- Reporting recent condition (rainfall level and water level on level 3) and also about refugee condition in Desa Pakis to Bupati Jember.</li> </ul>

### Condition of Critical (Condition 5)

Rainfall Level : 4 (120 mm/hour)

Water Level : 4 (160 Cm)

Status : Critical

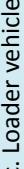
No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS (Kahendran Plantation)	1. Head RT 09 (Satuman) Others : 1. Opsinder of Kahendran Plantation (Trianto) 2. Vice Opsinder Kahendran Plantation (Supandi) 3. Security Kahendran Plantation (Senawi)	- Stay in the evacuation site while monitoring recent weather condition. - Inform stakeholders that status is CRITICAL. - Inform resident that Evacuation should be finished.	- Stay in the evacuation site (evacuation) and coordinating refugee of plantation residents concerning with needs and refugee record - Send information about rainfall level condition and water level that under CRITICAL condition to: 1. Security of PDP (Senawi) 2. Opsinder (Trianto) and vice Opsinder (Supianto) of Kahendran Plantation 3. Vice Head Dusun Pakis Utara (Supianto) 4. Head Dusun Cempoko (Sutrisno) 5. Head Desa Pakis (Zaini)	1. Rainfall gauge
2.	Middlestream Area Kalipakis (Dusun Pakis)	1. Vice Head Dusun Pakis Utara (Supianto)	- Make coordination with Plantation	- Make coordination with Kahendran Plantation (Mr. Page   45	2. Communication tool

Utara)	<ul style="list-style-type: none"> <li>- Make coordination other stakeholders that evacuation should be finished.</li> </ul>	<ul style="list-style-type: none"> <li>- Satuman) about rainfall level water level and recent landslide.</li> <li>- Instruct resident of Dusun Pakis Utara to conduct EVACUATION to provided place.</li> <li>- Make coordination with:           <ol style="list-style-type: none"> <li>1. Head LMDH (Hartono)</li> <li>2. Head RT 08(Samsul) and</li> <li>3. RT 09 (Romli)</li> </ol> <p>That it is already CRITICAL condition and still help resident in conducting EVACUATION and reminding each other that rainfall condition and water level is on level four and inform resident that EVACUATION PROCESS should be finished.</p> </li> <li>- Report to Head Desa Pakis (Zaini) about resident evacuation condition</li> </ul>	 Handphone HT	 2. Speaker	 Evacuation Tool:
		<ul style="list-style-type: none"> <li>a. Palankeen</li> </ul>		 b. Tent	 c. Loader Vehicle

			<p>Evacuation site:</p> 
3.	Downstream Area of DAS (Dusun Kalipakis Cempoko)	<p>2. Head Dusun Cempoko (Sutrisno)</p> <ul style="list-style-type: none"> <li>- Make coordination with plantation water gauge in dam cempoko of Kali pakis river.</li> <li>- Check river water level in dam cempoko of Kali pakis river.</li> <li>- Make coordination with other stakeholders that evacuation should be finished.</li> </ul>	<p>1. Water level gauge</p>  <p>2. Communication Tool</p>  <p>3. Speaker</p>  <p>4. Evacuation Tool:</p>  <p>a. Palankeen</p> <p>Make coordination with kahendran Plantation (Mr. Satuman) about rainfall level, water level and recent landslide.</p> <p>Check river water level in water level gauge at dam cempoko and inform to Head desa Pakis (Zaini)</p> <p>Instruct resident of Dusun Cempoko to conduct EVACUATION to the provided place.</p> <p>Make coordination with:</p> <ol style="list-style-type: none"> <li>1. Head RT 02 (Senimin)</li> <li>2. Head RT 03 (Husaeri)</li> <li>3. Head RW 06 (Atro)</li> <li>4. Head RT 07 (Zainudin)</li> <li>5. Head RT 09 (Slamet)</li> <li>6. Head RT 10 (Rahman)</li> </ol> <p>That it is CRITICAL condition and help EVACUATION and reminding each other that rainfall condition and water level is on level four and inform to resident that EVACUATION should be finished.</p>

		<ul style="list-style-type: none"> <li>- Instruct to caretaker of mosque (Mahrus) to widespread information that it is on <b>CRITICAL</b> status to the residents by using speaker and evacuation should be finished.</li> <li>- Report to Head Desa Pakis (Zaini) about resident evacuation condition</li> </ul> <p>b. Tent</p>  <p>c. Loader Vehicle</p>  <p>5. Evacuation site:</p> 	<p>1. Communication Tool</p>   <p>Handphone HT</p>
4.	Desa Pakis	<p>Head Desa Pakis (Zaini)</p> <ul style="list-style-type: none"> <li>- Make coordination with plantation.</li> <li>- Check rain gauge in desa Pakis office</li> <li>- Instruct Task Force to help resident in conducting evacuation and instruct that evacuation should be finished.</li> <li>- Make coordination with other stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Stay in the evacuation site and keep making coordination with Kahendran plantation about rainfall level, water level and recent landslide condition.</li> <li>- Record incoming information from upstream area, middlestream area and downstream area.</li> <li>- Check rainfall condition and compare rainfall of upstream and downstream in the rain gauge at desa Pakis office</li> <li>- Instruct task force at village level</li> </ul>

	<p>secretary of village (A. Wahid) and treasurer of village (Agus) that it is on CRITICAL condition and still help resident in conducting EVACUATION and reminding each other that rainfall and water level is on level four and inform that EVACUATION process should be finished.</p> <ul style="list-style-type: none"> <li>- Reporting that evacuation process should be finished to:           <ul style="list-style-type: none"> <li>a. Kecamatan Panti (Camat Panti/Yahya)</li> <li>b. Sattak Kabupaten (Heri/Bakesbang)</li> </ul> </li> </ul>	 	 	<p>Evacuation tool:</p> <ul style="list-style-type: none"> <li>a. Palankeen</li> <li>b. Tent</li> </ul>
5.	<p>Kecamatan Panti</p> <p>3. Camat Panti (Drs. Yahya I.)</p>	<ul style="list-style-type: none"> <li>- Help in conducting evacuation and instruct that evacuation should be already finished.</li> <li>- Reporting recent condition to Sattak Kabupaten.</li> </ul>	<p>Together with Kecamatan Leader (Muspika) Kecamatan Panti helping the evacuation by using facilities such as car, palankeen, etc, and inform that evacuation should be finished.</p> <ul style="list-style-type: none"> <li>- Make coordination with Head desa Pakis (Zaini) about resident evacuation.</li> <li>- Reporting recent condition (rainfall level and water level on level 4) and also about refugee condition in Kahendran Plantation and Desa klungkung to Sattak Kabupaten (Heri Setiawan- Bakesbang).</li> </ul>	 

6.	Kabupaten Jember	<p><b>Satlak PB:</b></p> <p>1. Bakesbangpol Linmas/ Satlak PBP (Heri Setiawan)</p>	<p>- Make coordination with plantation about recent weather condition.</p> <p>- Help resident in conducting evacuation.</p> <p>- Reporting recent condition.</p> <p>- Make coordination with Head Desa Pakis (Zaini) and Kecamatan Panti (Yahya) about resident evacuation (Location, number, needs).</p> <p>- Reporting recent condition (rainfall level and water level on level 4) as well as about refugee condition in Desa Pakis to Bupati Jember.</p> <p>- Together with Kabupaten leaders (Muspida) to help evacuation by using facilities such as car, palankeen, etc to prepare help during evacuation process.</p> <p>- Make coordination with Head Desa Pakis (Zaini) and Kecamatan Panti (Yahya) about resident evacuation (Location, number, needs).</p> <p>- Handphone HT Evacuation tool:</p>  <p>c. Loader vehicle</p>  <p>c. Loader vehicle</p>  <p>c. Loader vehicle</p>  <p>a. Palankeen</p>  <p>b. Tent</p>  <p>c. Loader vehicle</p>

## Condition of Danger (Condition 6)

Rainfall Level : 5 (150 mm/hour)

Water Level : 5 (180 cm)

Status : Danger

No	Location	Stakeholder	Activity	Mechanism	Equipment
1.	Upstream Area of DAS (Kahendran Plantation)	1. Head RT 09 (Satuman) Others : 1. Opsinder of Kahendran Plantation (Trianto) 2. Vice Opsinder Kahendran Plantation (Supandi) 3. Security Kahendran Plantation (Senawi)	<ul style="list-style-type: none"> <li>- Stay in the evacuation site (under evacuation)</li> <li>- Monitor recent weather condition if still possible.</li> <li>- Give information that rainfall condition and water level is on status of DANGER.</li> <li>- Give information to resident that evacuation process is finished.</li> </ul>	<ul style="list-style-type: none"> <li>- Stay in the evacuation (under evacuation) by coordinating plantation area concerning with needs and list of refugee</li> <li>- Send information and coordination about rainfall level condition, water level on level 5 that means DANGER condition to:</li> </ul> <ol style="list-style-type: none"> <li>1. Security of PDP (Senawi)</li> <li>2. Opsinder (Trianto) and vice Opsinder (Supianto) of Kahendran Plantation Utara (Supianto)</li> <li>3. Vice Head Dusun Pakis (Sutrisno)</li> <li>4. Head Dusun Cempoko (Zaini)</li> <li>5. Head Desa Pakis (Zaini)</li> </ol> <ul style="list-style-type: none"> <li>- Inform resident that it is on DANGER condition and EVACUATION should be already finished, keep staying in the evacuation site and be aware to river water flow line because rainfall becomes heavier inserted</li> </ul>	  

			with landslide.
<b>2.</b>	Middlestream Area DAS Pakis (Dusun Pakis Utara)	<p>1. Vice Head Dusun Pakis Utara (Supianto)</p> <ul style="list-style-type: none"> <li>- Make coordination with Plantation.</li> <li>- Make coordination with other stakeholders that evacuation should be finished.</li> </ul>	<p>- Make coordination with Plantation.</p> <p>- Make coordination with other stakeholders that evacuation should be finished.</p> <p>- Make coordination with Kahendran Plantation (Mr. Satuman) about rainfall level water level and recent landslide.</p> <p>- Instruct resident of Dusun Pakis Utara that condition is DANGER and still help resident in EVACUATION site, keep staying in evacuation site and reminding each other that rainfall and water level reaches level five and inform resident that EVACUATION process should be finished.</p> <p>- Make coordination with:</p> <ol style="list-style-type: none"> <li>1. Head LMDH (Hartono)</li> <li>2. Head RT 08(Samsul) and</li> <li>3. RT 09 (Romi)</li> </ol> <p>About rainfall level and and water level that on level five and inform resident that EVACUATION process should be finished.</p> <p>- Report to Head Desa Pakis (Zaini) about resident evacuation condition</p>

		c. Loader Vehicle
	Evacuation site:	
3.	Downstream Area of DAS (Dusun Kalipakis Cempoko)	<p>1. Head Dusun Cempoko (Sutrisno)</p> <ul style="list-style-type: none"> <li>- Stay in the evacuation site</li> <li>- Make coordination with plantation</li> <li>- Help resident in conducting evacuation and the evacuation should be finished.</li> <li>- Make coordination with other stakeholders</li> </ul> <p>2. Communication tool</p>   <p>Handphone HT</p> <p>3. Speaker</p>  <p>4. Evacuation tool:</p>  <ul style="list-style-type: none"> <li>- Make coordination with:</li> <li>1. Head RT 02 (Senimin)</li> <li>2. Head RT 03 (Husaeri)</li> <li>3. Head RW 06 (Atri)</li> <li>4. Head RT 07 (Zainudin)</li> <li>5. Head RT 09 (Slamet)</li> </ul>

		<p>a. Palankeen</p>  <p>b. Tent</p>  <p>c. Loader Vehicle</p>  <p>5. Evacuation site:</p>	<p>1. Communication tool</p>   <p>Handphone HT</p>
	<p>6. Head RT 10 (Rahman)</p> <p>About rainfall level and water level that on level five and inform residents that EVACUATION process should be already finish.</p> <ul style="list-style-type: none"> <li>- Instruct to caretaker of mosque (Mahrus) to widespread information that it is on <b>DANGER</b> status to the resident thorough speaker and that evacuation should be already finish.</li> <li>- Report to Head Desa Pakis (Zaini) about resident evacuation condition</li> </ul>	<ul style="list-style-type: none"> <li>- In the evacuation site and make coordination with Kahendran Plantation about rainfall level, water level and recent landslide occurrence.</li> <li>- Instruct task force at village level secretary of village (A. Wahid) and treasurer of village (Agus) that it is on DANGER condition and still help resident in conducting EVACUATION and reminding each other that rainfall rainfall and water level is on level five and inform that EVACUATION process should</li> </ul>	
4.	Desa Pakis	Head Desa Pakis (Zaini)	<ul style="list-style-type: none"> <li>- Make coordination with plantation</li> <li>- Instruct task force to help resident in conducting evacuation and instruct that evacuation should be finished.</li> <li>- Make coordination with other stakeholders</li> </ul>

			<ul style="list-style-type: none"> <li>- be finished.</li> <li>- Reporting that EVACUATION process should be finished to:</li> </ul>
5.	Kecamatan Panti	4. Camat Panti (Drs. Yahya I.)	<ul style="list-style-type: none"> <li>- Help evacuation instruct evacuation should be finish.</li> <li>- Reporting condition to Satlak Kabupaten.</li> <li>- Together with Leader (Muspika) Panti help the evacuation by using facilities such as car, palankeen, etc and inform that evacuation should be finished.</li> <li>- Make coordination with desa Pakis (Zaini) about resident evacuation.</li> <li>- Reporting recent condition (rainfall level and water level is on level 5) and also refugee condition in Kahendran plantation as well as in Desa Klungkung to Satlak Kabupaten (Hery Setiawan- Bakesbang).</li> </ul>
6.	Kabupaten Jember	Satlak PB: 1. Bakesbangpol Linmas/ Satlak PBP (Heri Setiawan)	<ul style="list-style-type: none"> <li>- Make coordination with plantation about recent weather condition.</li> <li>- Helping resident in conducting evacuation.</li> <li>- Reporting recent condition.</li> <li>- Deploying additional other Satlak member if needed to help the refugee during the evacuation process (Social Agency, PMI, PU Pengairan, Resort Police, District Military) such as for location security, emergency kitchen, etc.</li> <li>- Keep making coordination with Head Desa Pakis (Zaini) and</li> </ul>

	<p>about rainfall condition, water level and recent landslide occurrence.</p> <ul style="list-style-type: none"> <li>- Make coordination with all Satlak member:           <ul style="list-style-type: none"> <li>a. District Military</li> <li>b. Resort Police,</li> <li>c. PU Pengairan Agency,</li> <li>d. Social Agency</li> <li>e. PMI</li> <li>f. Kecamatan Pantai and give information that Kahendran Plantation is heavy rain, rainfall and water level is on level 5 and instruct to help resident at the evacuation site, meanwhile rain goes heavier and condition is DANGER.</li> </ul> </li> <li>- Using existing equipments and evacuation (car, evacuation site, evacuation tent, etc) to evacuate the resident.</li> <li>- Require the residents to keep staying in the evacuation site because it is still under danger condition.</li> <li>- Take over command into centralized command at the evacuation site, conduct disaster site survey and make sure that condition is safe for resident to return home into residential area.</li> </ul>
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## **IX. CLOSING**

*Standard Operating Procedures (SOP) of Early Warning System for Banjir Bandang DAS Kalipakis is as result of stakeholders through Focus Group Discussion, Site Watching, and Table Top Exercise.* Thereby, this book has been well-understood before. YPM had arranged the result into systematic form namely SOP book. This book is expected to be utilized as handbook or guidance for community as well as stakeholders around catchment area (DAS) in anticipating and countermeasuring banjir bandang disaster.