

# Report for Field Survey on Banjir Bandang

**TANGGAL 30 MARET 2009**

**DI KAB. TANAH DATAR PROF. SUMBAR**



**Vol.1**

**8 April,2009**



**JICA Expert UENO Toshiyasu**

**SHIIBA Shusaku**

1. Schedule

6 April,2009    9:15-10:55    Jakarta to Padang (GA162)  
                         10:55-14:40    Padang to Batusangkar  
                         14:30-15:00    Meeting with Bupati Tanah Datar  
                         15:00-18:30    Field survey on Sungai Tarab  
7 April,2009    8:00-12:00    Field survey on Sungai Tarab  
                         12:00-15:00    Batusangkar to Padang  
                         15:00-16:00    Meeting with Kepala Dinas PU Prop. Sumatera Barat  
8 April,2009    6:00- 7:30    Padang to Jakarta(JT0351)

2. Member

UENO Toshiyasu (JICA Expert)  
SHIIBA Shusaku (JICA Expert)  
Haruyono Utomo (STC)  
PU staff

3. Location

Main disaster area is east side of Mt. Merapi  
(DI KAB. TANAH DATAR PROP. SUMBER, WEST SUMATRA)

4. Date of disaster

30, March 2009

5. Impact of disaster

Victims

Killed:            1 person  
Injured:           3 people  
Misshing:        6 people

Infrastructure

Bridge :           7 units  
Houses:           30 houses  
Schools:          2 units  
Irrigations:      4 units  
Others:            1 unit of mosque and 1 unit of market

6. Rainfall

55 mm, 8.5 hours

## 7. Meeting with Bupati Tanah Datar

Before field survey, we went to Pemerintah Kabupaten Tanah Datar. And we met District head of Tanah Datar, Mr, Shadiq Pashadique. We explained them the purpose of this field survey. In this area, there are still some tents and some officers discussed about countermeasure of the disaster.



Pemrintah Bupati Tanah Datar

## 8. Outline of Basin

Mt. Merapi is volcano(El.2891m). In the upper area, there are some collapses.



East side of Mt. Merapi

This collapse was formed in 6 March 2007 by earthquake. It is estimated that this collapse was formed in old days and product a lot of rock and sand.

And upper area is very steep slope. So if it rains, water runs down suddenly.

9. Each area's situation

a) Site: Rao Rao

In this area, riverbank and river basement was eroded.



b) Site: Pasia Laweh

In this area 1 unit of mosque and 1 unit of market are damaged.



c) Site:

In this area, bridge was destroyed.



d) Site:

In this area, debris flow attacked the roof of house.



e) Site:

In this area, flood attacked the house and 5 people was missing.



f) Site:

In this area, flash flood broke the bridge. The green bridge is under construction by army.



g) Site:

In this area, rocks sediment accumulated. And some houses were broken.



h) Site:

In this area, debris flow attacked the irrigation facility.





#### 10. Meeting with Kepala Dinas PU Prop. Sumatera Barat

After the field survey, we went to Kepala Dinas PU Prop. Sumatera Barat and reported about the field survey.



In Kepala Dinas PU Prop. Sumatera Barat

## 11. Comments

- 1) In the upper area, collapses product a lot of sediments. And the debris flows also product a lot of sediments by eroding riverbank and river basement. So large quantity sediments flew down to the lower area.
- 2) At the changing point of the incline to gentle, a lot of huge rocks and stones accumulated.
- 3) In the upper area, it is estimated that rainfall was more than 55mm.

## 12. Suggestions

- 1) When the bank protection works are constructed, crossing facilities are recommended to protect the river basement.
- 2) In the middle of river where accumulated a lot of sediments, it is better to remove them and make sand pocket.
- 3) At serpentine rivers, if it is possible, they should be changed to flow smoothly.