

**THE PREPARATORY STUDY
ON
DISASTER MANAGEMENT PROGRAM
FOR
INDONESIA**

FINAL REPORT

SUPPLEMENT REPORT

**- FINDINGS FROM WEST SUMATRA EARTHQUAKE -
- 30 SEPTEMBER 2009 -**

MARCH 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

ORIENTAL CONSULTANTS CO., LTD.

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ABBREVIATIONS

Terms	English
ACI	American Concrete Institute
ADB	Asian Development Bank
AIFDR	Australia-Indonesia Facility for Disaster Reduction
AMeDAS	Automated Meteorological Data Acquisition System
APBN	State Annual Budget
ATC	Applied Technology Council
AusAID	Australian Agency for International Development
AWS	Automated Weather Station
BAKORNAS PB	National Coordinating Board for Disaster Management <i>(Badan Koordinasi Nasional Penanganan Bencana)</i>
BAKOSURTANAL	National Coordination Agency for Survey & Mapping <i>(Badan Koordinasi Survei dan Pemetaan)</i>
BAPPEDA	Regional body for planning and development <i>(Badan Perencanaan Pembangunan Daerah)</i>
BAPPENAS	National Development Planning Agency <i>(Badan Perencanaan Pembangunan Nasional)</i>
BGAN	Broadband Global Area Network
BMKG	Agency of Meteorology, Climatology and Geophysics <i>(Badan Meteorologi Klimatologi dan Geofisika)</i>
BNPB	National Disaster Management Agency <i>(Badan Nasional Penanggulangan Bencana)</i>
BPBD	Regional Disaster Management Agency <i>(Badan Penanggulangan Bencana Daerah)</i>
BPKP	State finance and development surveillance committee
BPPT	Agency for Assessment and Application of Technology <i>(Badan Pengkajian dan Penerapan Teknologi)</i>
CBDRR	Community Based Disaster Risk Reduction
CBS	Cell Broadcasting System
CEWS	Climatological Early Warning System
CSO	Civil Society Organization
DART	Deep-ocean Assessment and Reporting of Tsunamis
DEPHUT	Department of Forestry <i>(Departemen Kehutanan)</i>
DEPKES	Department of Health <i>(Departemen Kesehatan)</i>
DEPKEU	Ministry of Finance <i>(Departemen Keuangan)</i>
DEPKOMINFO	Department of Communication and Informatics <i>(Departemen Komunikasi dan Informatika)</i>
DEPSOS	Department of Social <i>(Departemen Sosial)</i>

DIBI	Data and Information of Disaster in Indonesia (<i>Data dan Informasi Bencana Indonesia</i>)
DISS	Disaster Information Sharing System
DKN	National Maritime Council (<i>Dewan Kelautan Nasional</i>)
DKP	Department of Marine and Fisheries Affairs (<i>Departemen Kelautan dan Perikanan</i>)
DLR	Deutschen Zentrum fur Luft und Raumfahrt
DPRD	State Parliament house (<i>Dewan Perwakilan Rakyat Daerah</i>)
DRI	Disaster Risk Index
DRR	Disaster Risk Reduction
DSS	Decision Support System
EIA	Environmental Impact Assessment
EOC	Emergency Operation Center
ESDM	Department of Energy and Mineral Resources (<i>Departemen Energi dan Sumber Daya Mineral</i>)
ETEWS	Earthquake and Tsunami Early Warning System
GFDRR	Global Facility for Disaster Reduction
GFZ	Deutsches Geo Forschungs Zentrum
GOA	Government of Australia
GOI	Government of Indonesia
GOJ	Government of Japan
GPS	Global Positioning System
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HFA	Hyogo Framework for Action
IBC	International Building Code
ICZM	Integrated Coastal Zone Management
IDR	Indonesian Rupiah
InaTEWS	Indonesian Tsunami Early Warning System
ITB	Bandung Institute Of Technology (<i>Institut Teknologi Bandung</i>)
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
JMA	Japan Meteorological Agency
KOICA	Korean International Cooperation Agency
LAPAN	National Institute of Aeronautics and Space (<i>Lembaga Penerbangan dan Antariksa Nasional</i>)
MDG	Millennium Development Goal
MEWS	Meteorological Early Warning System
MMI	Modified Mercalli Intensity
NAP	National Action Plan
NDMP	National Disaster Management Plan
NEITWS	National Earthquake Information and Tsunami Early Warning System
NGO	Nongovernmental Organization

NPO	Nonprofit Organization
ODA	Official Development Assistance
PGA	Peak Ground Acceleration
PSDA	Water Resources Management (<i>Pengelolaan Sumber Daya Air</i>)
PU	Department of Public Works (<i>Departemen Pekerjaan Umum</i>)
PP	Government Regulation (<i>Peraturan Pemerintah</i>)
PROTAP	Standard Procedure (<i>Procedur Tetap</i>)
RBO	River Basin Organization
RC	Reinforced Concrete
RDMP	Regional Disaster Management Plan
RENSTRA	Strategic Plan (<i>Rencana Strategis</i>)
RPJM	Medium-Term Development Plan (<i>Rencana Pembangunan Jangka Menengah</i>)
SAPROF	Special Assistance for Project Formation
SATKORLAK PB	Provincial Coordination Unit for Disaster Management (<i>Satuan Koordinasi Pelaksana Penanggulangan Bencana</i>)
SATLAK PB	District Coordination Units for Disaster Management (<i>Satuan Pelaksana Penanggulangan Bencana</i>)
SCDRR	Safer Communities through Disaster Risk Reduction
SKPD	Government Work Unit (<i>Satuan Kerja Perangkat Daerah</i>)
SMS	Short Message Service
SNI	Indonesian National Standard (<i>Standar Nasional Indonesia</i>)
SOP	Standard Operation Procedure
TCDP	Technical Cooperation for Development Planning
TCWC	Tropical Cyclone Warning Center
TRC	Quick Response Team (<i>Tim Reaksi Cepat</i>)
UBC	Uniform Building Code
UNDP	United Nations Development Program
UNP	University of Padang State (<i>Universitas Negeri Padang</i>)
UPT	Technical Executing Unit (<i>Unit Pelaksana Teknis</i>)
US	United States
USGS	U. S. Geological Survey
VPN	Virtual Private Network
VSAT	Very Small Aperture Terminal
WB	World Bank

CHAPTER 1 BACKGROUND AND OBJECTIVE

1.1 Background of the Study

In the course of the Preparatory Study, an earthquake occurred at 7.6 magnitude based on the Richter Scale (RC) at 71km depth along the middle coast of West Sumatra Indonesia (hereinafter referred to as “2009 West Sumatra Earthquake”) at 17:16 hours (local time) on 30 September 2009, where JICA was conducting the development study from April 2007 to March 2009 for “The Study on Natural Disaster Management in Indonesia.” The project located in Kabupaten Padang Pariaman, Kota Pariaman and West Sumatra Province. is a pilot case study.

Damages were widespread over West Sumatra Province, mainly at Kabupaten Padang Pariaman and Kota Pariaman which are close to the epicenter. Kota Padang, the capital of West Sumatra Province which is highly populated was also subjected to severe damages.

As of 18 October 2009, death incidence rose to 1,117 while the injured increased to 2,902. While damages to infrastructures were limited, numerous buildings were severely devastated including 2,164 schools, 51 hospitals and 254 government offices. Based on the latest update on 26 October 2009, a total of 250,578 residential buildings were damaged of which 114,483 were heavily ravaged.

Under this situation, the Government of Japan (GOJ) accepted the request from the Government of Indonesia (GOI) on the 1st of October, 2009, the day following the occurrence of the seismic activity, for the immediate mobilization of emergency assistance and support including the deployment of Emergency Relief Team composing of Rescue Team and Medical Team, provision of Emergency Relief Goods (tents, sleeping mats, blankets, and generators, etc.), among others.

As part of the assistance of GOJ, JICA immediately deployed an Investigation Team to West Sumatra for purposes of promptly grasping the rehabilitation and reconstruction assistance needs, in order to provide a continuous and orderly mode of assistance from emergency response to rehabilitation and reconstruction. Through the investigation, it was confirmed that the development of houses provided with appropriate measures against seismic activity is urgently needed, in order to prevent the occurrence of the same tragedy in the future.

The Preparatory Study is aimed at proposing New Projects for future implementation. The ultimate objective is to enhance the comprehensive capacity of Indonesia for disaster management based on actual damage brought about by the earthquake. In view of the foregoing, JICA decided to expand the scope of the original components of the Preparatory Study by the inclusion of the following study: 1) Emergency Response Operations Chronicle Survey, and 2) Large-scale RC Building Damage Survey. Thus, in December 2009, JICA deployed a Study Team to West Sumatra for one month to undertake the proposed tasks.

1.2 Objectives of the Study

The Study is aimed at improving the disaster management administrative ability of Indonesian officials through the components listed hereunder. In order to effectively implement the objectives of the program, the study results should be disseminated to relevant agencies concerned.

Component 1: Emergency Response Operations Chronicle Survey

- Verification of the issues on disaster emergency response operations implemented by GOI at the time the 2009 West Sumatra Earthquake occurred.
- Based on the results of the verification, the ways and means of improving the Emergency Response Capacity and Disaster Management Planning of GOI will be formulated.

Component 2: Large-scale RC Building Damage Survey

- Determining the structural components of RC buildings subjected to major damage.
- To provide recommendatory measures on how to improve the structural stability of major RC Buildings including the method of Retrofitting as measures against seismic forces.

1.3 Scope of the Study

Table 1.3.1 below summarizes the scope of the Study.

Table 1.3.1 Scope of the Study

<p>Component 1: Emergency Response Operations Chronicle Survey</p>	<p>Gathering of information through interrogation survey about the emergency response operations that were implemented based on the National/Regional Disaster Management Plans. Comparison of the information gathered with the National/Regional Disaster Management Plans based on the guidelines formulated by the JICA Study Team for The Study on Natural Disaster Management in Indonesia and other extracted issues.</p> <p>Verifying the actual usage of the National/Regional Disaster Management Plans for the preparation of recommendations.</p> <p>Confirming and analyzing the Instantaneous Response Assistance of Donors including their program for recovery assistances.</p> <p>Investigating, formulating, preparing and recommending future Regional Disaster Management Plan and Emergency Response Manual.</p>
<p>Component 2: Large-scale RC Building Damage Survey</p>	<p>Status survey of damaged buildings.</p> <p>Review of the large-scale building damage survey (conducted by GOI) and propose recommendations for possible improvements.</p> <p>Investigating and recommending for method of repair/rehabilitation and retrofitting of damaged buildings against seismic activity.</p> <p>Recommending measures for improvement/construction of RC buildings.</p>

1.4 Schedule and Members of the Study Team

The overall study covers the period December 2009 to February 2010. Table 1.4.1 hereunder shows the schedule of activities in Indonesia.

Field survey was implemented in December, 2009 for the collection of essential information in Jakarta, and West Sumatra Province. The results of the study were disseminated to relevant agencies in late January, 2010. During the dissemination, conferences were held for the intensive discussions of the study results with concerned GOI officials for which exchanges of ideas between the JICA Study Team and the participants were made to promote the use of the result.

Table 1.4.1 Study Schedule

Date	Component 1: Emergency Response Operations Chronicle Survey	Component 2: Large-scale RC Building Damage Survey
Stage 1 Field Survey (Information Collection)		
2 Dec. – 26 Dec.	2 Dec. – 7 Dec. Survey in Jakarta 8 Dec. – 21 Dec. Survey in Padang 22 Dec. – 26 Dec. Survey in Jakarta	2 Dec. – 3 Dec. Survey in Jakarta 4 Dec. – 21 Dec. Survey in Padang 22 Dec. – 26 Dec. Survey in Jakarta
Stage 2 Field Survey (Dissemination of Results)		
19 Jan.	-	9:00-11:00 ITB 16:00-18:00 PUCK
20 Jan.	Travel to Padang (Jakarta - Padang)	
	-	Preparatory Meeting with Provincial PU
21 Jan.	9:00-10:00 Discussion Meeting with Mr. Teddy Boen	
	14:00-18:00 Discussion Meeting at Provincial SATKORLAK	14:40-17:00 Discussion Meeting at Provincial PU 19:00-20:00 Discussion Meeting at Andalas University
22 Jan.	10:00-11:30 Discussion Meeting at Kabupaten Padang Pariaman SATLAK	Supplementary Survey 14:00-17:00 Discussion Meeting at Kota Padang
23 Jan.	Supplementary Survey in Kabupaten Padang Pariaman	
24 Jan.	Travel to Jakarta (Padang – Jakarta)	
25 Jan.	9:30-10:30 BNPB	
	-	13:00-15:30 BPPT

Table 1.4.2 below shows the member lists of the Study Team

Table 1.4.2 Members of the Study Team

Name	Designation
Mr. Ryoji TAKAHASHI	Team Leader/Emergency Response Planning
Mr. Taichi OGINO	Emergency Response Activity Survey/Dissemination
Mr. Kazuhiro MIYATAKE	Damaged Building Survey (Collection of Information, Assessing the status/extent of Damage)
Mr. Akio HAYASHI	Survey of Damaged Buildings (Construction Method to Avert Possible Damage of Buildings due to Seismic Forces)

1.5 General Outline of West Sumatra Earthquake, 30 September, 2009

1.5.1 Characteristics of Earthquake

The earthquake occurred along the middle coast of West Sumatra on 30 September, at 17:16 hours, local time. The area is located in a region where the Australian plate descending under the Eurasian plate toward northeast. In recent years, earthquakes in the region have occurred frequently, at 8.5 intensity on the Richter Scale (RS) in 2005 and 2007, and 9.1 intensity on the RS in Aceh in 2004. In particular, the areas along the coast of Kabupaten Padang Pariaman are prone to the occurrence of possible earthquake considering the long seismic inactivity gap. While the earthquakes were triggered at the edge of the plates; they are considered to have occurred inside the sinking plate. Table 1.5.1 and Figure 1.5.2 show the outline of the earthquake.

Table 1.5.1 Background Information of the earthquake.

Time Date	17:16, 30 th , September, 2009
Epicenter	0.72S, 99.85E
Depth	71km
Magnitude	Mw = 7.6

Source: USGS; 2009

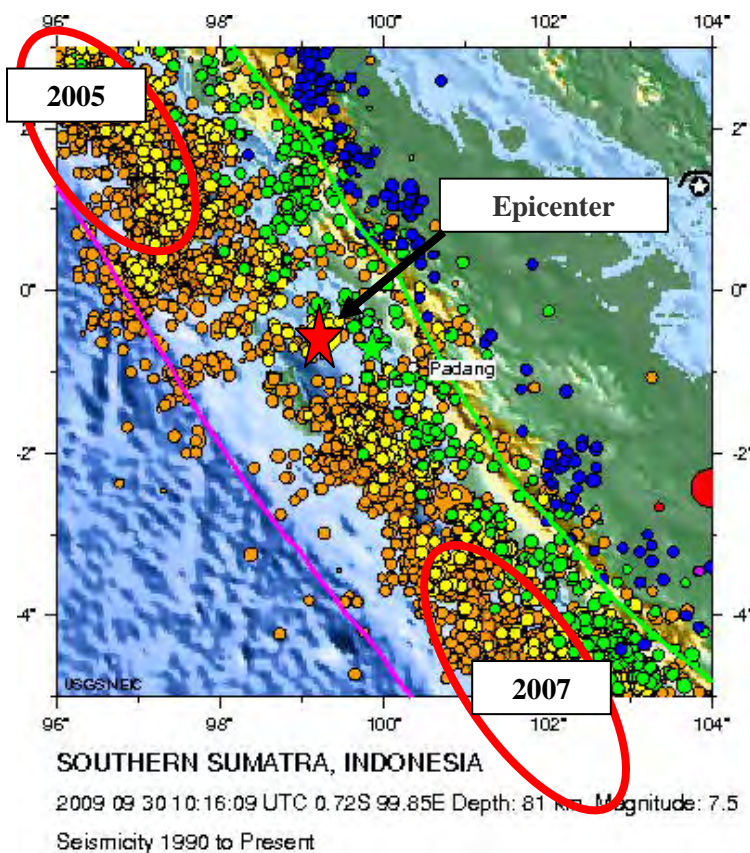


Figure 1.5.1 Recent earthquake activities and Seismic Centers

Source: USGS; 2009

Regrettably, at the time the earthquake occurred, the seismic intensity was not properly measured due to the absence of a strong motion sensor. Based on information from USGS, the maximum seismic intensity ranged from VII to VIII. However, based on the observed spatial spread of building damages, it can be considered that the feature of ground motion greatly differed by topography. In Particular, a certain individual in Kota Pariaman informed that he was still standing with his legs widely spread at the instant the earthquake occurred. On the other hand, someone in the mountainous region of Kabupaten Padang Pariaman said that he stumbled at the moment the earthquake occurred. The occurrence of the two incidences were understandable because the earthquake took place in two different landscapes, one in a flat area and the other in a mountainous terrain.

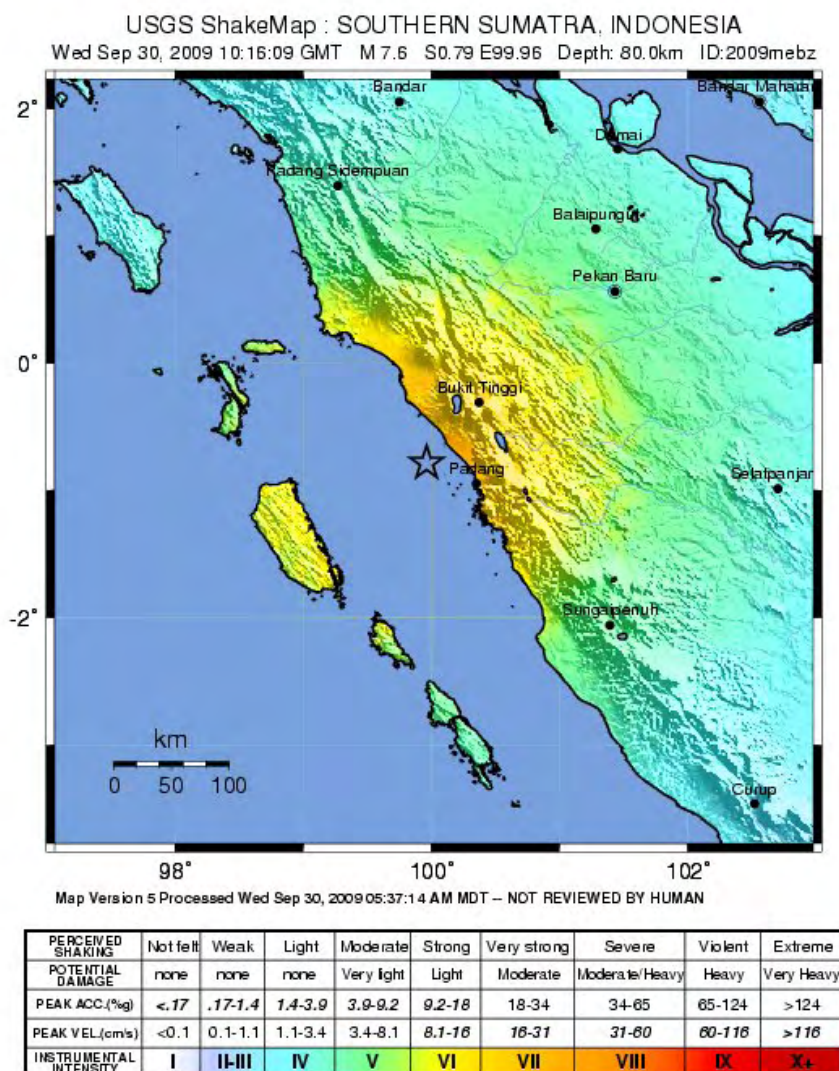


Figure 1.5.2 Distribution of seismic intensity (MMI)

1.5.2 Status of Damages

Field surveys were conducted mainly in Kota Pariaman and Kabupaten Padang Pariaman, the study area of the Project. Additional survey was also conducted in Kota Padang, the capital of West Sumatra Province.

Kota Padang which is highly populated in particular incurred severe damage. Kota Pariaman, Kabupaten Padang Pariaman and Kabupaten Agam, which are the closest to the epicenter, also incurred considerable damages. .

1) Human Casualties

Human casualty incidences in Kota Padang and Kabupaten Padang Pariaman in particular were quite serious. Human victims for the whole of West Sumatra comprise of 1,117 death toll, 1,214 severely injured 1,688 minor injuries, 2 missing and 410 inhabitants with abandoned houses. Table 1.5.2 shows the lists of human fatalities.

Table 1.5.2 Human Casualties

No	Location	Death	Injured		Missing	IDP*
			Severe	Minor		
1	Kota Padang	313	431	771	2	
2	Kota Pariaman	32	148	278	-	
3	Kota Solok	3	-	-	-	
4	Kota Padang Panjang	-	6	14	-	
5	Kab. Tanah Datar	-	-	-	-	
6	Kab. Padang Pariaman	675	527	528	-	
7	Kab. Mentawai Archipelago	-	-	-	-	
8	Kab. Agam	80	90	47	-	
9	Kab. Solok	-	-	5	-	
10	Kab. Pasaman	-	-	-	-	
11	Kab. West Pasaman	5	5	25	-	410
12	Kab. South Pesisir	9	7	20	-	
Total		1,117	1,214	1,688	2	410

Source: Operation Command Center of National Agency for Disaster Management, 18 October, 2009

*Internally Displaced Persons

2) Damage to Building Facilities and Residential Houses

Damage to building facilities in Kota Padang generated by the earthquake showed widespread devastation. Large buildings, including governmental facilities, commercial facilities, and hotels crumbled extensively in all spots and locations. Widespread devastation to residential buildings occurred in Kota Padang but Kabupaten Padang Pariaman and Kota Pariaman incurred limited damages. Residential buildings particularly in the old downtown areas in China Town especially buildings with flimsy structures incurred profound damages.

While the few mid-to-high-rise buildings mostly 3-story high in Kota Pariaman and Kabupaten Padang Pariaman did not incur total damage, the 1 to 2-story residential houses were heavily damaged. Table 1.5.3 hereunder shows the total devastations. Of the total, 250,578 destruction, 114,483 houses incurred severe damage, 67,184 incurred medium damage, and 68,913 houses sustained light damage. The situation in Kota Padang, Kabupaten Padang Pariaman, and Kota Padang in particular was quite devastating.

Table 1.5.3 Damage to Building Facilities & Residential Houses

No	Location	Pre-Disaster Condition		Severe Damage	Medium Damage	Light Damage	Total Damage
		Number of House	Number of Households				
1	Kota Padang	150,421	178,970	33,597	35,816	37,615	107,028
2	Kota Pariaman	15,154	17,124	6,514	3,960	2,931	13,405
3	Kota Solok	11,234	12,805	2	2	6	10
4	Kota Padang Panjang	9,177	10,941	17	164	413	594
5	Kab. Tanah Datar	82,717	89,400	28	115	105	248
6	Kab. Padang Pariaman	91,069	86,690	57,788	16,430	13,694	87,912
7	Kab. Mentawai Archipelago	16,191	17,188	3	0	136	139
8	Kab. Agam	97,907	112,029	11,796	3,797	4,353	19,946
9	Kab. Solok	80,211	89,863	145	243	357	745
10	Kab. Pasaman	53,925	59,454	197	13	931	1,141
11	Kab. West Pasaman	75,580	78,236	3,240	3,046	2,862	9,148
12	Kab. South Pesisir	102,903	112,387	1,156	3,596	5,510	10,262
Total		786,489	865,087	114,483	67,182	68,913	250,578

Source: Damage and Loss Assessment, BNPB; 26 Oct, 2009

3) Infrastructure and Lifeline Damage

The total damage and loss to infrastructures and lifelines were estimated at Rp. 963 billion. Damage to roads and bridges affected several transportation networks in West Sumatra although damage occurred in limited area. The earthquake also damaged the supply and distribution of lifeline facilities including telecommunications, energy, and utility works such potable water supply system, and sanitary facilities.

Table 1.5.4 Damage and Loss to Infrastructures and Lifelines (Rp. billion)

	Damage	Loss	Total	Private	Government
Roads & Bridges	294	0	294	0	294
Telecommunication	33.6	19.7	53.3	52.3	1
Energy	46.3	6	52.3	0	52.3
Clean Water	232.3	7.1	239.5	107	132.5
Sanitation	323.9	0	323.9	323.9	0
Total	930.1	32.8	963	483.2	479.8

Source: Damage and Loss Assessment, BNPB; 26 Oct, 2009

CHAPTER 2 EMERGENCY RESPONSE CHRONICLE SURVEY

Mitigation and preparedness efforts before the occurrence of a catastrophe are recognized as the most important aspects in disaster management to alleviate damages against the calamity. Should disaster occur repeatedly, there is a need to improve promptness and effectiveness in consultations/coordination with stakeholders for emergency responses to mitigate the incidences of casualties and preventing additional secondary disaster from occurring. However, due to the involvement of numerous stakeholders during emergency response, coordination among the various institutions, groups and individuals is in reality a difficult task. For this reason, experience gained from the occurrence of previous disasters is an important tool in improving emergency response. In light of the foregoing, the West Sumatra Earthquake that occurred on 30 September, 2009, is valuable and effective resources as bases in assessing the emergency response activities provided by the central and local governments coupled with the supports from International Agencies, NGOs, Communities, and among other stakeholders.

During the field survey, the Study Team visited Jakarta and West Sumatra, and interviewed relevant officials of BNPB, West Sumatra SATKORLAK, Kabupaten Padang Pariaman SATLAK, Kota Pariaman SATLAK including International Agencies such as AusAID, UNDP. The primary purpose is to determine topics of concern that were gained by the occurrence of the calamity as basis in drawing up appropriate emergency response measures for the future. Moreover, from 2007 to 2009, JICA was also assisting the formulation of the Regional Disaster Management Plan (hereinafter referred to as “RDMP”) for the Kabupaten Padang Pariaman, and Kota Pariaman, the areas subjected to nastiest damage during the West Sumatra Earthquake in 30 September 2009. The components as bases in improving the measures to be adopted for the formulation of the RDMP, are discussed hereafter.

2.1 Objectives and Methodology of the Survey

The objectives and methodology used for the survey are described as follows;

1. Chronological gathering of emergency response activities information conducted by GOI and major international agencies for the West Sumatra Earthquake that occurred on 30 September 2009.
2. The information was collected through published documents supplemented with interview surveys of relevant organizations.
3. The result of forgoing activities are the bases in improving future emergency response measures as revisions to the current utilized to improve emergency response Disaster Management Plans and PROTAP.

2.2 Emergency Response Operations (Case of West Sumatra Earthquake, 30 September, 2009)

This measure was formulated based on the interviews/dialogues with relevant GOI officials, information gathered from mass media and press releases by concerned agencies. It does not however, contain all the activities conducted during the emergency response operations in the 2009 West Sumatra Earthquake due to limitation of time surveyed.

2.2.1 Present Emergency Response System of GOI

This section describes the current mode of emergency response of GOI in the national and regional level. At present, as illustrated in Figure 2.2.1, each government level has disaster management agency, and in local level government of Province and Kabupaten/Kota, they are under preparation to establish permanent disaster management agencies as Local Disaster Management Agency (BPBD), while SATKORLAK/SATLAK are temporal body to handle disaster management.

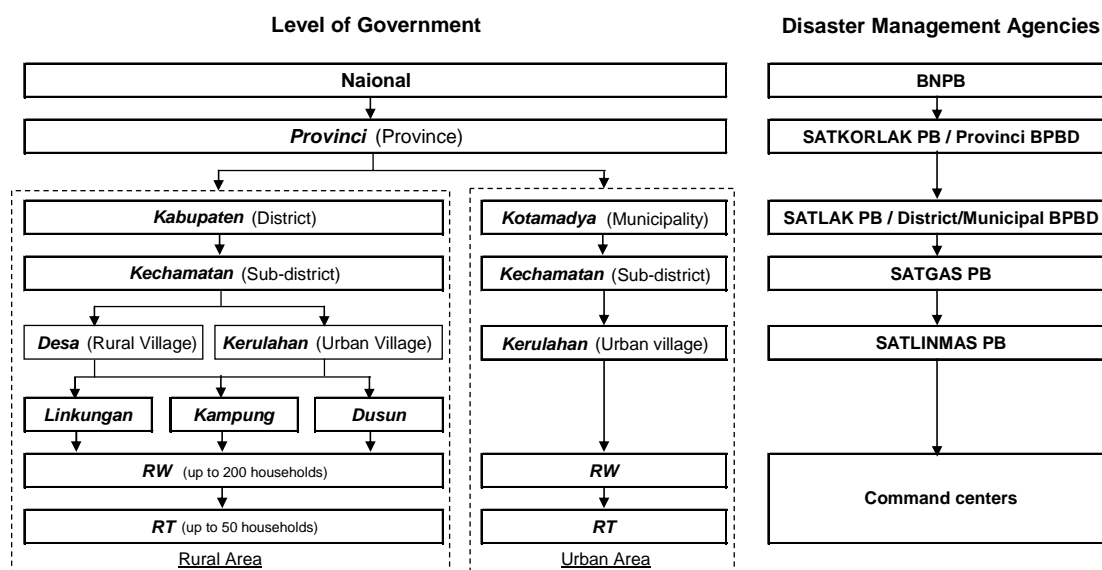


Figure 2.2.1 Level of Government and Disaster Management Agencies in Indonesia

1) Central Government

(1) National Disaster Management Agency (BNPB)

BNPB was established in 2008 to enhance comprehensive disaster management capacity in national level. In the event of a major disaster, BNPB is mandated to launch emergency response operation through information gathering, determining the necessity of mobilizing to disaster areas needed for the coordination of emergency response operations. In this case, due to the urgency of

the situation, BNPB could initiate immediate operations while appealing for assistances from the local government. Currently, BNPB is the leading agency for handling disaster management including emergency response operations with the use of available infrastructures/facilities in accordance with pertinent regulations as described hereunder.

A. National Emergency Operation Center (NEOC)

The Emergency Operation Center at the national level is located at the 4th floor of BNPB.

EOC is the implementing organization mandated to execute the functions of emergency preparedness and/or disaster management in normal and emergency situations. This group which is the central command is provided with control facilities. The roles of EOC are: 1) to collect, gather, analyze and provide data and information, 2) to deliver decisions for the protection of life and property, maintain continuity of the operations, within the range covered by applicable law, 3) disseminating the result of the decisions to all concerned agencies and individuals. EOC is provided with organic staffs and equipped with the following facilities: 1) compartment provided with basic facilities including network and server, 2) information system such as computers, GIS and database software, spatial and statistical data, 3) communication system such as land line telephones, fax, internet, cellular phone, satellite phone, BGAN satellite phone, walkie-talkie and radio transmission, and 4) SOP. The main server is provided with UPS good for eight (8) hours of operations. EOC however, is not provided with standby generating sets to be used in the event of prolonged power failures.



B. BNPB Quick Response Team (TRC)

The Quick Response Team (TRC) of BNPB was enacted on December 17, 2008. Its role is to provide essential guidelines to personnel of TRC for the prompt and precise implementation of

emergency response in the event of a disaster. This group falls under the Head of BNPB Regulation Number 9 of 2008. BNPB TRC is tasked primarily to conduct speedy and accurate assessment of disaster areas on specific period of time. This will involve the locating of disaster areas, quantification of victims, damaged infrastructures and facilities, disruptions of public services, determining the availability of natural and artificial resources, and providing precise advices for the proper execution of the disaster management program effectively. Additionally, they are also tasked to assist SATKORLAK/ Provincial BPBD/ SATLAK/ District BPBD in coordinating all related sectors during the entire stages of the emergency operations/activities.

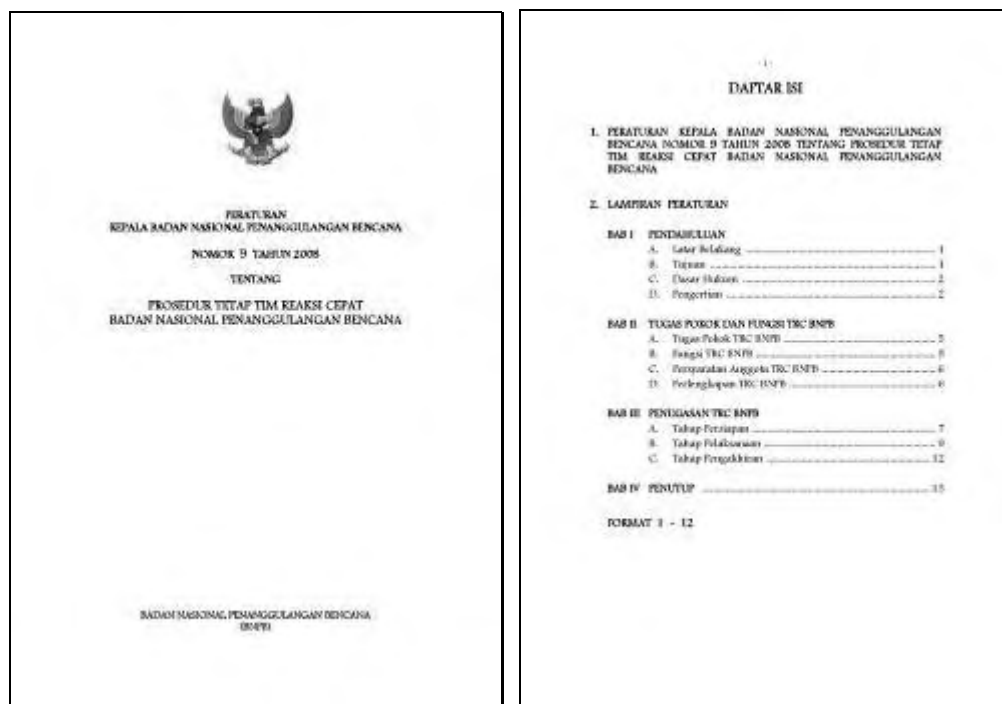


Figure 2.2.2 Head of BNPB Regulation No 9/2009 regarding Permanent Procedure of BNPB Quick Response Team

C. Emergency Response Command

The Head of BNPB Regulation Number 10 of 2008 was conceived to provide Guidelines for Disaster Emergency Response Command. This body was also enacted in 17 December 2008. This regulation was ratified prior to the passing of Head for BNPB Regulation No. 9 as mentioned earlier. This regulation was ratified to integrate the whole disaster emergency operations with BNPB/BPBD, related organization/agencies, National Army, and National Police for the speedy, precise, effective, efficient and coordinated actions. This guideline covers the following: 1)

Preliminary Disaster Information, 2) Deployment of TRC, 3) Declaring the level of disaster, and 4) Formation of Disaster Emergency Response Command.

The frequent use of EOC, BNPB in the event of disasters is based on these regulations.

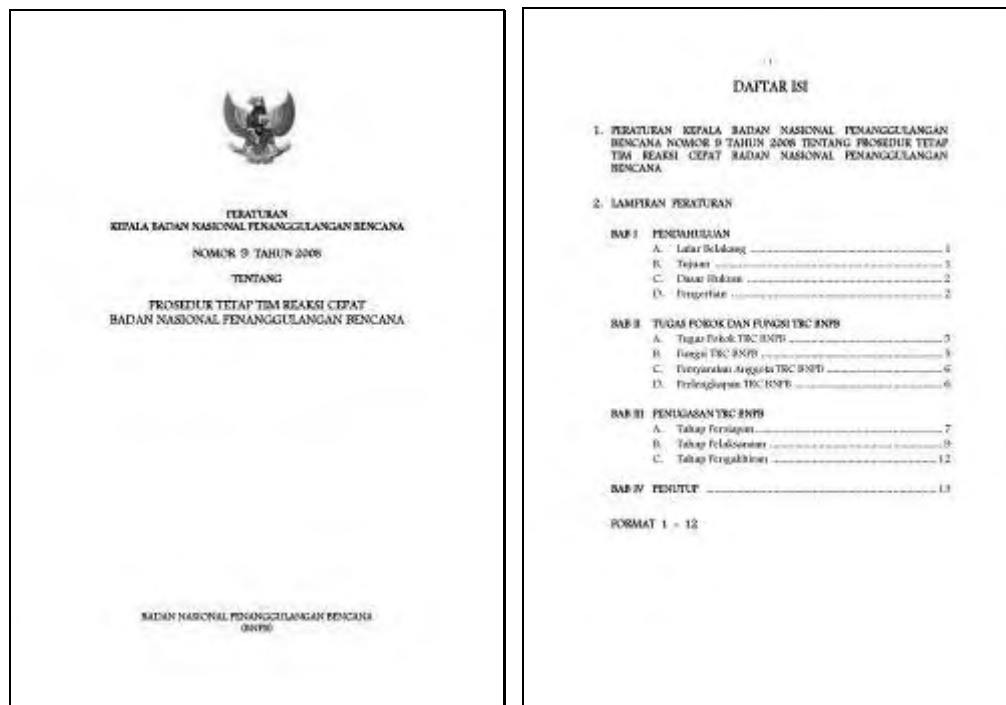


Figure 2.2.3 Head of BNPB Regulation No 10/2009 regarding Guideline on Disaster Emergency Response Command

(2) National Search and Rescue Agency (BASARNAS)

BASARNAS (National SAR Agency) was established in 1972 with the name BASARI (Indonesian SAR Agency), which is a GOI respond for joining the ICAO (International Civil Aviation Organization, 1950) and IMO (International Maritime Organization, 1955). Its function is to manage the aviation and maritime disaster and to support other disaster emergency response by providing search and rescue activities. Since its establishment, BASARNAS was positioned under the Ministry of Transportation.

In 2007, GOI issued the Presidential Regulation No. 99/2007, which transform the BASARNAS into a ministerial level agency and positioned directly under the President.

In order to cover whole of Indonesia, BASARNAS is assisted by 24 SAR regional offices in form of Technical Implementer Units (UPT) which also act as the local representative of BASARNAS in coordinating the SAR operation. For the establishment of these offices, the criteria were based on the disaster potential in the region, so that not every province has one. These offices have the task to execute the initial action, coordination and mobilization of all SAR potential in a SAR

operation. They also have the obligation to conduct the training and education of SAR in their respective work area.

Table 2.2.1 List of Regional SAR Offices: <city (province)>

1. Banda Aceh (NAD)	9. Surabaya (East Java)	17. Mataram (West Nusa Tenggara)
2. Medan (North Sumatera)	10. Pontianak (West Kalimantan)	18. Kupang (East Nusa Tenggara)
3. Pekanbaru (Riau)	11. Banjarmasin (West Kalimantan)	19. Ambon (Maluku)
4. Padang (West Sumatera)	12. Balikpapan (East Kalimantan)	20. Sorong (West Papua)
5. Palembang (South Sumatera)	13. Makassar (South Sulawesi)	21. Biak (Papua)
6. Tanjung Pinang (Riau Island)	14. Kendari (South East Sulawesi)	22. Timika (Papua)
7. Jakarta (Capital city)	15. Manado (North Sulawesi)	23. Merauke (Papua)
8. Semarang (Central Java)	16. Denpasar (Bali)	24. Jayapura (Papua)

Source: BASARNAS, 2010

Every regional offices are assisted by 2 (two) SAR Post (totally 48 in all Indonesia). This post has the task to conduct regular patrol/observation in their working area and to train the community to be aware and to be able to help the disaster victims in the first phase whenever disaster occurred before the team from regional office arrive in the location.

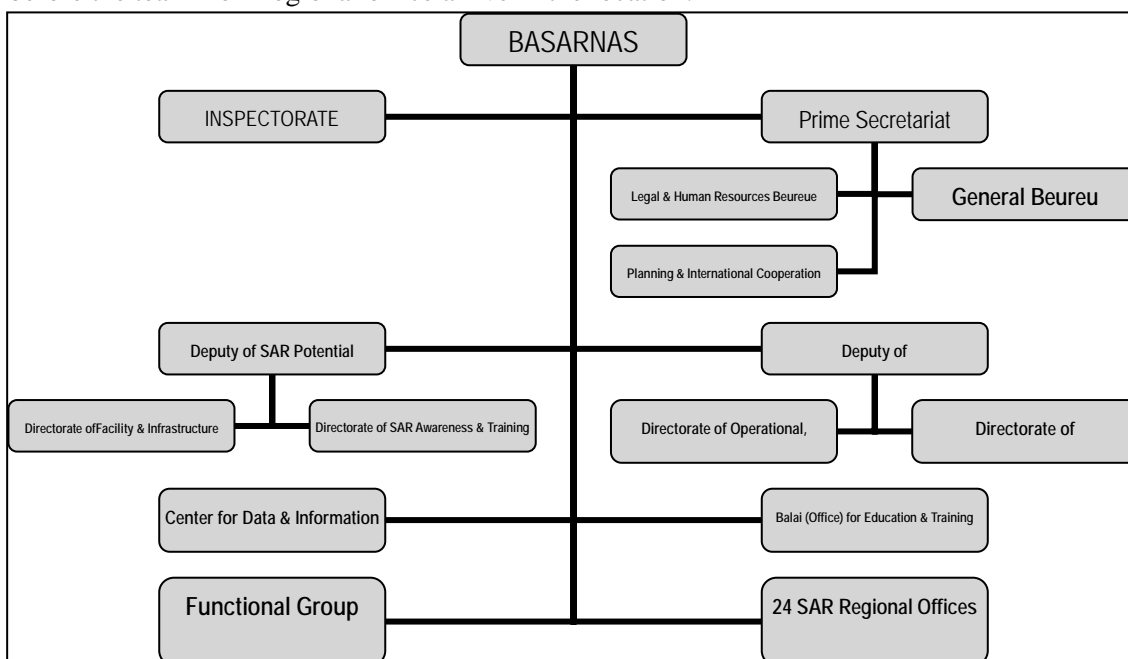


Figure 2.2.4 Organization Chart of BASARNAS

Source: BASARNAS, 2010

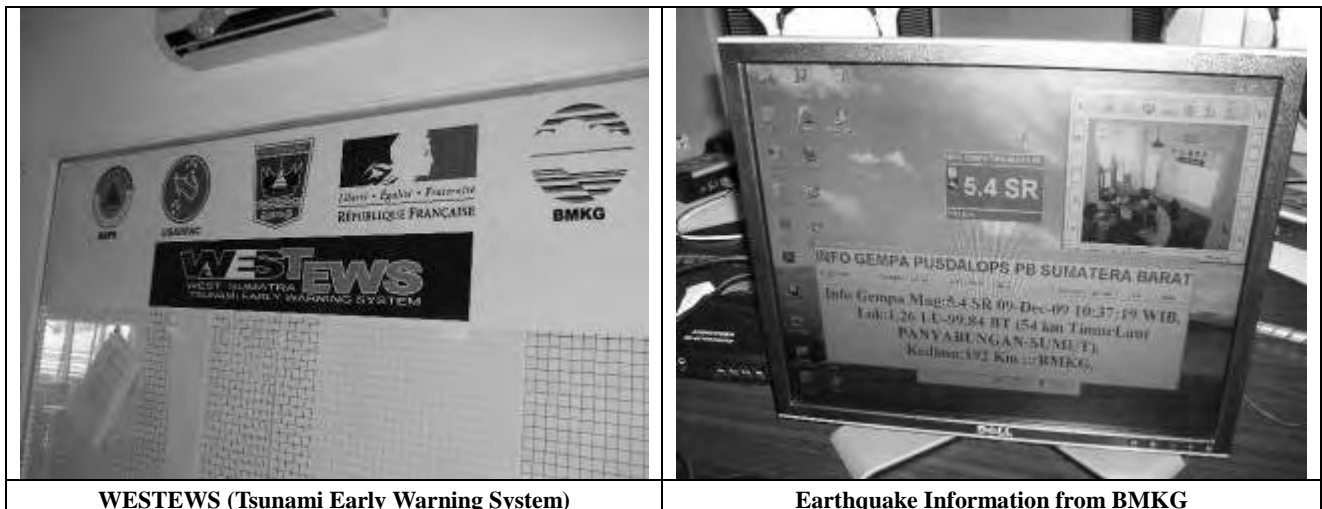
2) Province (West Sumatra Province SATKORLAK)

For major disaster, which cannot be handled solely by Kabupaten/Kota, West Sumatra Province Government, SATKORLAK will take the lead as the window in assisting the smooth implementation of emergency response operations. In this case, SATKORLAK will collect the information concerning the extent of damages from affected Kabupaten/Kota government to assess the needs for essential supply assistances including SAR, dissemination of relief goods, and among other activities.

(1) West Sumatra Province Emergency Operation Center (EOC)

West Sumatra Province EOC has been established in cooperation with French Government. EOC is located at the back of Governor's Office. This agency was established to alert the public about the possible occurrence of tsunami through InaTEWS (Indonesia Tsunami Early Warning System) and WESTEWS (West Sumatra Tsunami Early Warning System), and other mass communication facilities and command control stations. EOC is provided with similar layout as those with EOC of BNPB. They are housed in existing building.





(2) West Sumatra Province Standard Procedure for Disaster Management and Refugee Handling (West Sumatra PROTAP)

West Sumatra PROTAP was declared under a Governor Decree on 25 September 2002, defining the emergency response operations by SATKORLAK. The constituents of PROTAP are composed of the following: 1) General, 2) Mechanism, 3) Principles of Activities, 4) Organizational Structure of Disaster Management and Refugee Handling, 5) Task and Obligation, 6) Work procedure, 7) Activity Program of SATKORLAK, 8) Reporting, 9) Coordination and Controlling, and 10) Closure of Activities. The type of operation to be conducted however was not clearly identified in the PROTAP.

Under the PROTAP, the activities of SATKORLAK for emergency response period consist of 6 Sectors as follows: 1) Observation and Planning, 2) Operation and Refugee Handling, 3) Potential, Logistic, Cooperation and Community's Participation, 4) Data, Documentation, Information and Publication, 5) Refugee Handling, and 6) Secretaries of SATKORLAK. Figure 2.2.5 shows the organizational structure of SATKORLAK for West Sumatra Province.

SATKORLAK is a temporal unit for the handling of disaster management. Regrettably however, it has weak points that need to be enhanced based on Head of BNPB Regulation No.3/2008 concerning Establishment of BPBD (Regional Disaster Management Agency) enacted on 11 November, 2008. It is noted in this connection that all provincial governments are mandated to establish BPBD as a permanent agency for disaster management. In view of the above, West Sumatra Province is expected to establish BPBD in 2010.

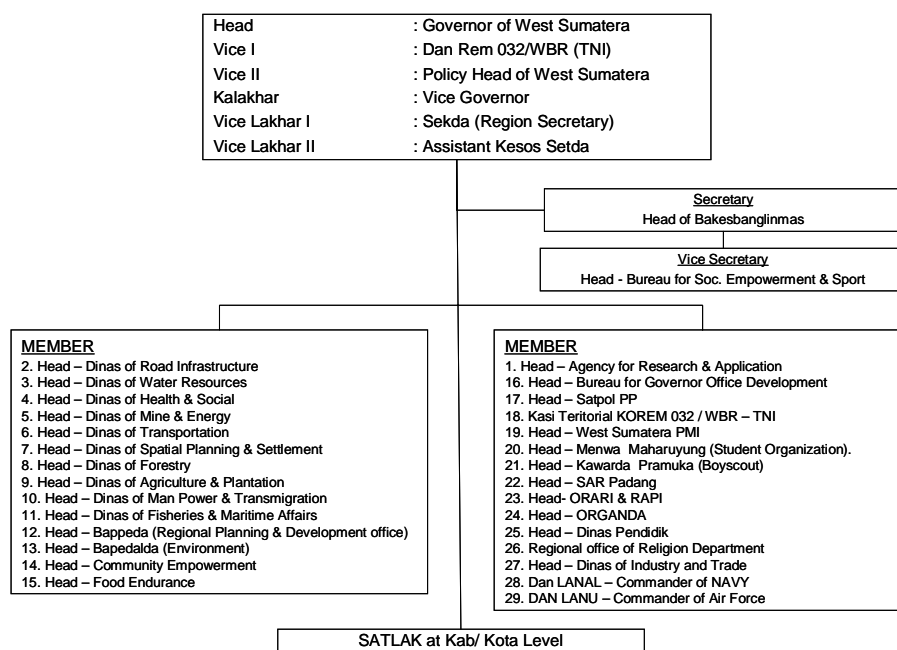


Figure 2.2.5 Structure of SATKORLAK

Source: PROTAP, West Sumatra Province, 2002

Each sector has tasks as shown in Table 2.2.2.

Table 2.2.2 Activities Sector of SATKORLAK

<p>1. Observation and Planning Sector Implements the formulation of policy and the arrangement of coordination in the field of observation and planning. These tasks involve the following activities:</p> <ol style="list-style-type: none"> Setting up plans and programs, guidelines, standard and procedure for preparedness and assistance as well as casualty rescue. Prepare data and mapping of disaster-prone areas. Setting up plans and programs for emergency relief, repatriation and evacuation of casualties and refugee handling. Implementation of coordination with SATLAK PBP of Regency/City on the context of observation and planning for Disaster Management and refugee handling pursuant to the relevant Regency/City's security and situation. Preparation of essential materials/documents as needed for meetings/conferences. Planning of disaster management schemes in collaboration with adjoining provinces in the framework of averting of calamities along the border.
<p>2. Operation and Refugee Handling Sector Implements the formulation of policy and arrangement of synchronization in the field of operation and refugee handling. These tasks involve the following activities:</p> <ol style="list-style-type: none"> Setting up operational procedures in Disaster Management and refugee handling. Synchronizing and setting up of guidelines, standards and procedures for rescuing and safeguarding, empowerment, placement and socialization of refugees. Setting up plans and programs for field operation and safeguarding of refugees, repatriation and relocation. Setting up plans, guidelines and program for social reliefs for casualties and psychiatric counseling for those mentally affected by the disaster. Provision of assistance for technical guidelines and equipment required for Disaster Management and refugee handling. Provide assistance for ways and means of securing accommodations needed in the event of disaster. Evaluation and documentation of field operations and refugee handling as well as repatriation and relocation. Preparing of plans, program, guidelines, standards and procedures for needed rehabilitation and reconstruction after a disaster.

3. Logistic, Cooperation and Community's Participation Sector

Implements the formulation of policy and the preparation of logistic and coordination for cooperation and community's participation in Disaster Management and refugee handling.

These tasks involve the following activities:

- a. Setting up work programs for implementation of logistics, cooperation and community's participation in refugee handling.
- b. Provision of counseling by boosting the participation of business communities and non-profit organizations in Disaster Management.
- c. Implementing established guidelines and administration for the procurement and storage of aid and distribution of goods for victims and refugees.
- d. Provide assistance essential for Disaster Management before, during and after the occurrence in coordination/synchronization with the activities of other service/agency/work unit.
- e. Recording the number of personnel and facilities/equipment essential for Disaster Management and refugee handling.
- f. Evaluation and reporting the implementation of task o for the logistic sector, teamwork and community's participation.

4. Data, Documentation, Information and Publication Sector

Implements the collection, management and preparation of data and information as well as the development of information system for disaster and refugee handling.

These tasks involve the following activities:

- a. Collecting, managing and providing technical information data and developing technical information system for disaster and refugee handling.
- b. Preparation of information for affected communities on casualties, destructions and refugee handling.
- c. Assisting the press and media on disaster and refugee handling.
- d. Establishing of plans, programs and procedures for data collection, documentation, information and publication for Disaster Management and refugee handling.
- e. Collection of information and dissemination of information for disaster-prone areas.
- f. Evaluating and preparing report for purposes of documentation and publication for the implementation of Disaster Management programs.

5. Refugee Handling Sector

Implements the organization of documents, standards and procedures for refugee placement.

These tasks involve the following activities:

- a. Setting up/preparing of plans, programs, guidelines, standards and procedures for refugee repatriation and relocation.
- b. Setting up of data/management for evacuation area.
- c. Carrying out in coordination with SATLAK the mode of refugee handling.
- d. Preparation of needed personnel and equipment in response to the need of refugees.
- e. Providing of assistance to refugees.
- f. Evaluate and report the implementation of evacuation for the victim.
- g. Prepare the establishment of plan and program on refugee reconsolidation and socialization.

6. SATKORLAK Secretaries

Implements the analysis, technical training, provision of financing and administration and provision of administrative and technical services.

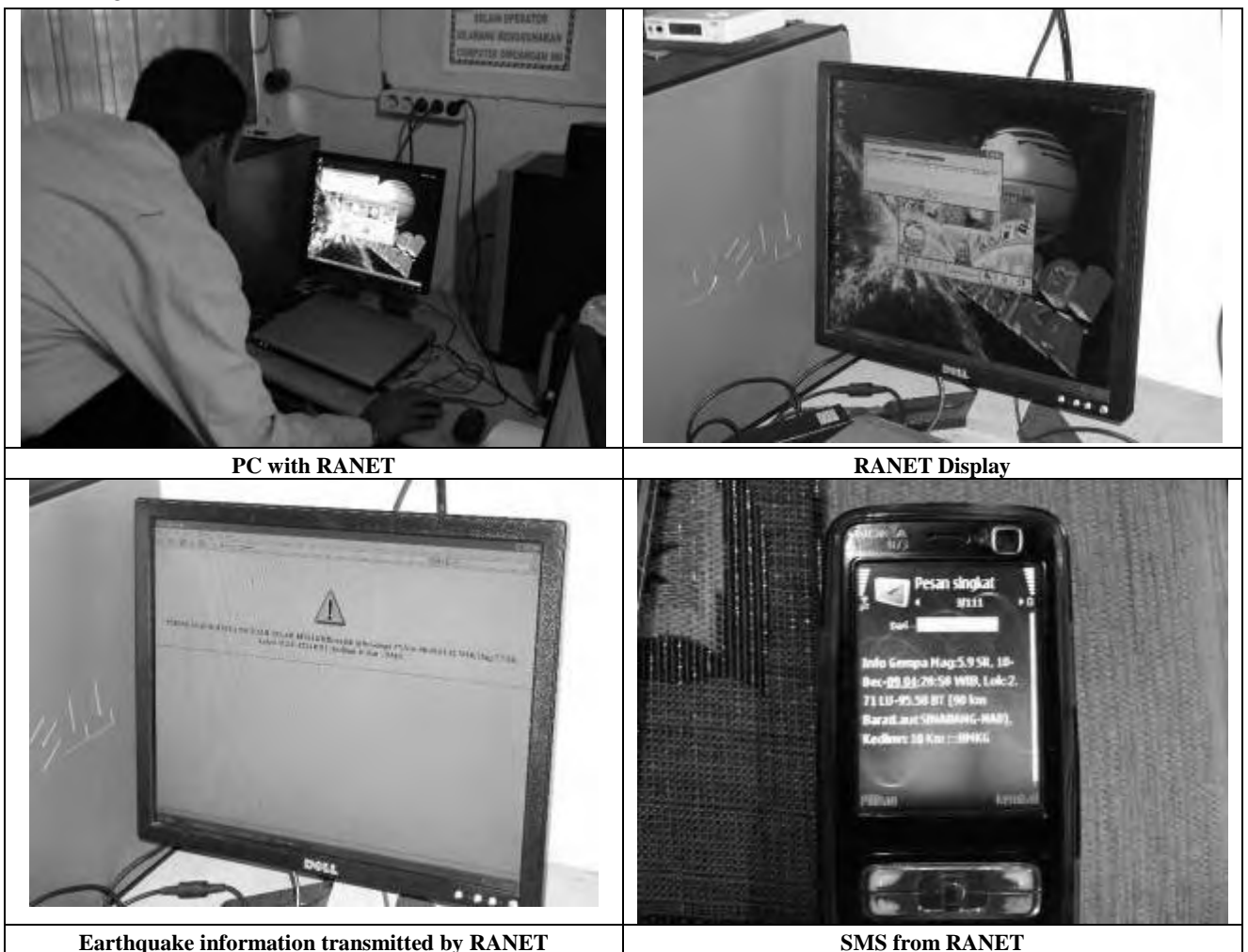
- a. Setting up plans, programs, extension of services, monitoring and training for Disaster Management including refugee handling.
- b. Preparation of plans for the implementation of procurement of materials and goods, inventory management and equipment demobilization for Disaster Management and refugee handling.
- c. Setting up of implementation plans for Disaster Management and refugee handling.
- d. Provision of administrative services for the implementation of SATKORLAK.
- e. Compilation of data for SATKORLAK for the entire West Sumatra area.
- f. Setting up of activity program plan for SATKORLAK.
- g. Coordination for the preparation of personnel and equipment to be mobilized for Disaster Management.
- h. Conducting daily the Command Post of SATKORLAK in Badan Kesbang Linmas Office.
- i. Receiving of reports and dissemination of information regarding the disaster situation to relevant parties.
- j. Receipt and distribution of donated aids for devastated areas and refugee handling in coordination with the Chairman for efficient use.
- k. Preparing and distributing of reports to relevant parties.
- l. Analysis of information data for Disaster Management, refugee handling and social support.

3) Kabupaten (Kabupaten Padang Pariaman SATLAK)

For major disaster that could not be handled by Kabupaten/Kota, Provincial government support will be sought for immediate response. In SATLAK is the coordinating agency of Kabupaten/Kota government, in the handling of emergency response operations. For purposes of illustration, this section will briefly describe the current mode of emergency response to Kabupaten Padang Pariaman.

(1) Kabupaten Padang Pariaman Emergency Operation Center (EOC)

Kabupaten Padang Pariaman is not yet provided with EOC establishment. The small office of Bakesbang Linmas (National Unity Agency) is provided with a Desk Top Computer with software RARNET (Earthquake Information System provided by BMKG). The system contains the registry of mobile phones and in the event an earthquake information occurrence is received, it is automatically transmitted to registered SMS. This system appears to be insufficient and while there are plans to provide permanent station with essential devices as command control center in cases of a disaster, to date, the same has not yet been realized in most Kabupaten/Kota government.



(2) Kabupaten Padang Pariaman Standard Procedure for Disaster Management and Refugee Handling (Kabupaten Padang Pariaman PROTAP)

Kabupaten Padang Pariaman PROTAP is under the Bupati (Head of District/Kabupaten) Decree issued in January 2008, delineating the emergency response operations by SATLAK. PROTAP includes the following components: 1) Introduction, 2) Organization, 3) Early Warning System, 4) Emergency Response, 5) Logistic Distribution System, and 6) Closure of Activities. The PROTAP however did not identify the type of operations to be pursued.

Under the PROTAP, SATLAK activities for emergency response consists of 6 Sectors, namely: 1) POLRI, 2) Health Service, 3) Social Office, 4) Transportation and Telecommunication Services, 5) Household and Utilities Board and 6) Public Work Service. Figure 2.2.5 shows the organizational structure of Kabupaten Padang Pariaman SATLAK.

SATLAK is also a provisional unit in handling disaster management. It has weak points which need to be continuously improved to enhance its disaster management capacity in accordance with the Head of BNPB Regulation No.3/2008 concerning the establishment of BPBD (Regional Disaster Management Agency) enacted on 11 November, 2008. All local governments are mandated to abide with this regulation, but for Kabupaten/Kota BPBD, this is optional. However, due to the exceptionally high awareness of disaster management in Kabupaten Padang Pariaman, the establishment of BPBD is currently under consideration in Kabupaten Parliament. Upon approval BPBD will be officially established and will be provided with 22 organic staffs to support and assist in enhancing the disaster management capability of Kabupaten Padang Pariaman.

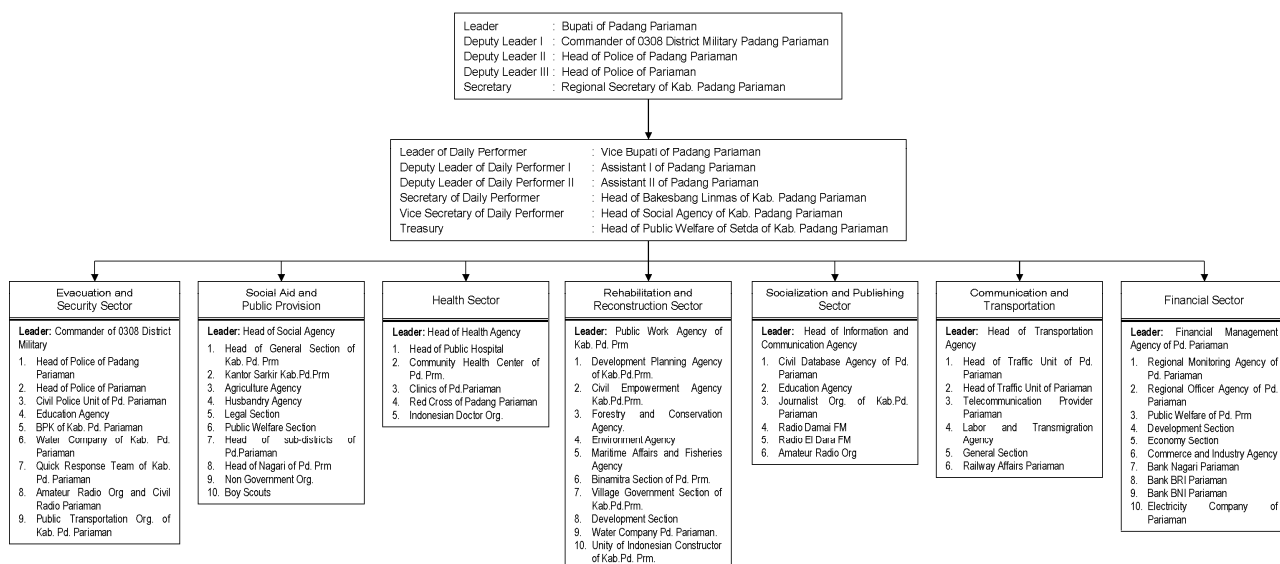


Figure 2.2.6 Organizational Structure of SATKORLAK

Source: PROTAP, Kabupaten Padang Pariaman, 2008

Table 2.2.3 describes the tasks of each Sector.

Table 2.2.3 Activities of Sector of SATLAK

POLRI	Conduct of security activities for Evacuation areas 30 minutes after the crisis period has elapsed.
Health Service	Provision of medical health, and tents for medication/ surgery at evacuation areas 60 minutes after calamity has elapsed. .
Social Office	Build shelters/ tents in every evacuation points, conduct victims' assessment and make public kitchens 3 to 6 hours after the crisis' period.
Transportation and Telecommunication Services	Pursue the repairs of damaged transportation routes and telecommunication lines within 4 hours after catastrophe occurred.
Household and Utilities Board	To undertake the immediate distribution of the logistics to all Evacuation centers within 6 hours after the crisis occurred.
Public Work Service	To provide heavy equipment, machineries and materials to facilitate the restoration of important facilities and utilities for every evacuation centers, within 6 hours after calamity occurred.
Social Office	Conduct the assessment of basic needs for evacuees within 24 hours after the occurrence of crisis.
Household and Utilities Board	Conduct funerals for the departed within 2 days of the crisis time.

2.2.2 Emergency Response Operations by GOI

A major earthquake with relatively high intensity occurred off the coast of Padang on September 30, 2009. In order to avert the spread of damage relevant stakeholders responded as promptly and effectively as possible based on experience gained from previous calamities. Documenting the emergency response of GOI is considered essential to improving the method of future emergency responses. This section therefore describes the system adopted by GOI in response to the crises by each government echelon including the National level with BNPB as the lead agency, Provincial level with SATKORLAK as the lead institution for West Sumatra Province, and Kabupaten Padang Pariaman SATLAK as the lead organization for Kabupaten/Kota level.

The Emergency Response Operations conducted by each stakeholder for the 2009 West Sumatra Earthquake are summarized in Table 2.2.6, Table 2.2.7, and

Table 2.2.8.

Day 1:

The earthquake struck just before sunset on 30 September 2009, with continuous strong tremors lasting about 1 minute causing many buildings including residential houses and major RC structures to collapse. Inhabitants were scared of the occurrence of Tsunami and as a result hurriedly evacuated to higher grounds. The abrupt chaotic movements of people caused traffic jams and accidents. Lifelines including electrical supply were disconnected, and due to the sudden surge of traffic telecommunication facilities/system malfunctioned. The deplorable condition was further aggravated by the loss of fresh water supply due to widespread pipe leakages. The abrupt loss of electricity and telecommunications left the devastated areas isolated. Owners of portable radios and generators tried as best they could to gather information about the earthquake and the amount of havoc it inflicted to West Sumatra.

SATKORLAK and SATLAK tried as best to congregate at certain times after the disaster occurred although aftershocks were still being felt. Responsible agencies in all levels, including the National government, Provincial SATKORLAK, Kabupaten/Kota SATLAK held their first meeting within 3 hours. The local level in Kabupaten/Kota, tried to investigate the extent of damage but due to the breakdown of utility lifelines coupled with heavy rains in the Kabupaten Padang Pariaman Area, the extent of damage could not be determined. The National Government then decided to deploy the Quick Response Team together with Ministers and UNOCHA coordination team the following morning on 1 October. Many international agencies also prepared to take actions by deploying workforce on 1 October. At this instant however, specific activities could not be undertaken in disaster affected areas on day 1.

Day 2:

At 1:30 am, the Governor of West Sumatra arrived in Padang, who at the time of the disaster was in Jakarta. An Emergency Response Efforts began to establish a Headquarter at the Governor Residence due to limited space of the Emergency Operation Center located across the street in front of the Governor's Office Before noon, BNPB's Quick Response Team and Investigation Team arrived in Padang and held coordination meetings and started actual emergency response operations. Numerous other response teams also arrived in Padang and started information gathering to grasp the immediate needs of emergency response assistance. Additionally, 2 locally based organizations, TNI and BASARNAS, initiated the search and rescue missions. Relief goods from Jakarta brought by the Investigation Team started the distribution of goods, but due to shortage of trucks coupled with the absence of information about the havoc, proper distribution of the relief good could not be undertaken. The absence of information about the extent of havoc also made it difficult to determine the quantity of relief goods for distribution. Most Health Centers (PUSKESMAS) also crumbled or were heavily damaged and therefore were not available to provide the needed medical treatment to victims. For this reason, the National Government had to deploy medical teams as well.

Day 3-7:

The first International Rescue and Medical Mission from Japan and Switzerland arrived in the morning of 2 October. Upon arrival, they started to gather information for the rescue operations in Padang with the collaboration of SATKORLAK. The President of Indonesia arrived in Padang and visited Pariaman the area most devastated by the onslaught of the earthquake. After 3 days of silence, information regarding damages from Kabupaten/Kota gradually started to trickle. Supply of relief goods could then undertaken by extent of damage to residential buildings as illustrated in Figure 2.2.7.

From the 3rd day the disaster occurred, information about damages was collected from Villages, Sub-Districts, Districts, Provinces, BNPB, twice daily as illustrated in Figure 2.2.8. And BNPB announced human casualty status and damage status as summarized in Table 2.2.4 and Table 2.2.5

After 4 days on 3 October, lifelines gradually started to recover except for water supply.

On the 6th day on 5 October, SAR operations were terminated.

1 Week – 1 Month:

Electrical supply to Kabupaten Padang Pariaman recovered on 9 October. Emergency Response Period was passed on to disaster victims for the supply of relief goods. Emergency Response

period was completed on 31 October, 1 month after the disaster occurred. Preparation is underway for the needed rehabilitation and reconstruction of infrastructures and facilities.

As can be seen in the above discussions, emergency response operations have been speedy and efficient as compared with previous efforts. This enhancement was made possible by observing the emergency response operations formulated by GOI with the support of International donor agencies.

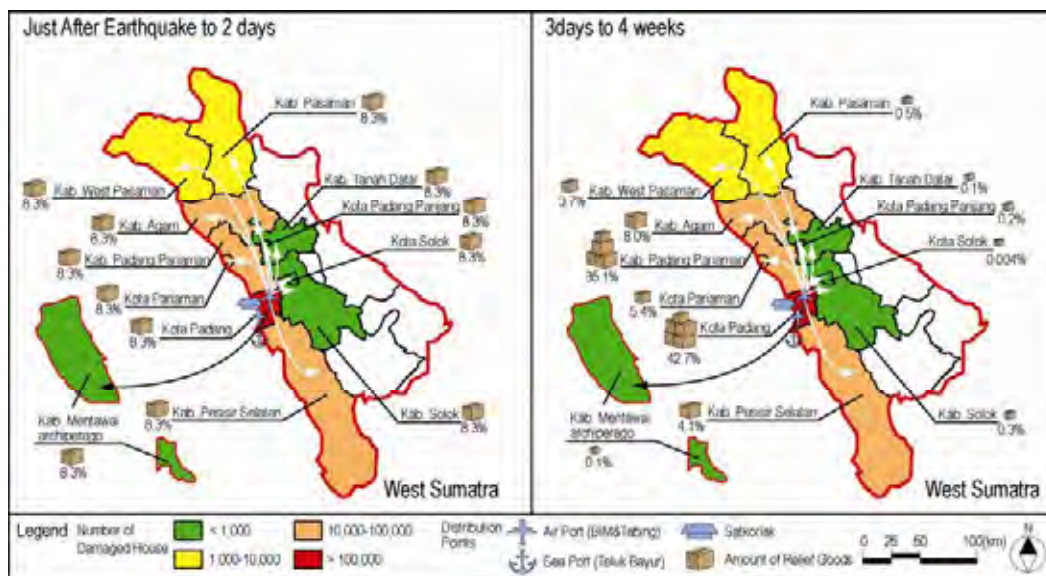


Figure 2.2.7 Relief Goods Distribution

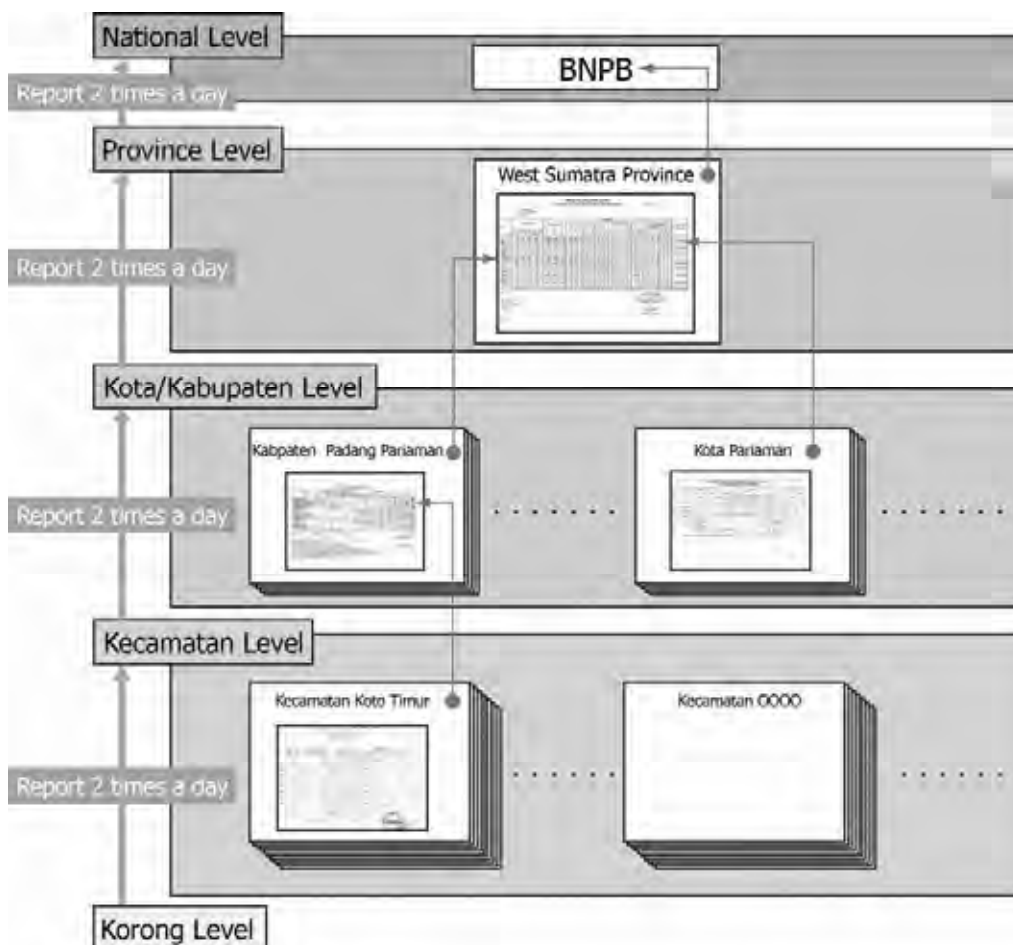


Figure 2.2.8 Reporting Process of Information about Damages

Table 2.2.4 Human Casualty Status

Date (October)	Human Casualty				
	Missing	Death Toll	Heavily Injured	Slightly Injured	Displaced
1	-	2	-	-	-
2	-	390	2,181 (injured)		
3	-	451	240	2,530	329
4	307	548	349	2,570	349
5	343	608	596	897	736
6	295	625	744	1,343	410
7	295	704	745	1,343	410
8	296	739	863	1,356	410
9	237	784	867	1,374	410
10	237	784	867	1,374	410
11	241	807	891	1,365	410
12	241	809	891	1,366	410
13	241	809	891	1,366	410
14	1	1,115	1,214	1,688	410
15	2	1,117	1,214	1,688	-
...
31	2	1,195	619	1,179	-

Source: BNPB Crisis Center daily report, 2008

Table 2.2.5 Damage Status

Date (Oct)	Housing			School			Health Facility			Offices			Road			Bridge		
	RB	RS	RR	RB	RS	RR	RB	RS	RR	RB	RS	RR	RB	RS	RR	RB	RS	RR
1	-	-	10															
2	32	-	10	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

3	13,040	3,830	6,737	59	23	18	-	-	-	-	-	-	-	-	-	-	-	
4	21,738	6,721	9,620	71	37	47	2	1	2	71	26	41	11	-	2	2	-	1
5	88,272	43,323	47,076	241	175	87	25	7	10	120	37	61	27	1	4	4	-	1
6	101,653	48,967	49,026	887	575	457	38	17	12	153	60	59	27	2	4	4	1	1
7	101,653	48,967	49,026	887	575	457	38	17	12	153	60	59	27	2	4	4	1	1
8	121,679	55,206	57,510	1,385	989	734	55	35	28	234	79	77	162	40	27	9	10	1
9	121,679	55,206	57,510	1,385	989	734	55	35	28	234	79	77	162	40	27	9	10	1
10	121,679	55,206	57,510	1,385	989	734	55	35	28	234	79	77	162	40	27	9	10	1
11	135,100	62,772	66,585	1,386	1,018	773	35	35	35	241	83	75	168	65	26	16	29	7
12	135,333	62,882	66,852	2,073	1,306	1,115	35	35	35	241	83	75	167	65	26	16	29	7
13	135,333	62,882	66,852	2,073	1,306	1,115	35	35	35	241	83	75	167	65	26	16	29	7
14	135,299	65,306	78,591	2,073	1,306	1,115	35	35	35	241	83	75	167	65	26	16	29	7
15	135,448	65,380	78,604	2,164	1,447	1,137	51	50	52	254	83	105	178	63	51	21	30	17
...
31	119,005	73,733	78,802	2,114	1,364	1,147	235	94	66	246	103	74	170	82	33	15	41	5

Date (Oct)	Irrigation			Religious Facility			Market		
	RB	RS	RR	RB	RS	RR	RB	RS	RR
1									
2	-	-	-	1					
3	-	-	-	-	-	-	-	-	-
4	28	19	17	6	7	10	-	1	-
5	28	19	21	573	237	122	-	-	-
6	28	19	21	659	364	245	11	8	-
7	28	19	21	659	364	245	11	8	-
8	33	19	21	1,182	521	339	36	20	18
9	33	19	21	1,182	521	339	36	20	18
10	33	19	21	1,182	521	339	36	20	18
11	96	26	23	1,237	582	404	37	22	22
12	82	40	9	1,237	582	404	37	22	22
13	82	40	9	1,237	582	404	37	22	22
14	82	40	9	1,237	582	404	37	22	22
15	147	144	27	1,003	1,119	649	49	16	20
...
31	144	153	29	1,331	693	464	55	43	59

Note: RB: Rusak Berat (heavily damaged), RS: Rusak Sedang (moderately damaged), RR: Rusak Ringan (slightly damaged)

Source: BNPB Crisis Center daily report, 2008

Table 2.2.6 Emergency Response Operations by each Implementer in Chronological Order (Day 1 to Day2))

	BNPB and National Level Agencies			SATKORLAK and Provincial Level Agencies			SATLAK and Kab/Kota level Agencies (Kab PP & Kota Pariaman)			Government of Japan (JICA) (Rescue team, Medical team)			International Agencies & Donors			Others (domestic NGO, local communities, etc)			
	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	
1st Day (30 Sep)	5.16 pm	First Earthquake (7.6 RS)		First Earthquake, followed by major electricity & communication malfunction			First Earthquake, followed by major electricity & communication malfunction										People in panic! Self Evacuated to higher location	Local community	
	< 5 min	Earthquake Warning	BMKG	< 5 min	Did not receive earthquake information - RANET not function - Crisis Center building was badly damaged - 5 Staffs were still in office		< 8 pm	Did not receive earthquake information - RANET not function	Both SATLAK		Received Request for Support from GOI			Earthquake Warning	GDACS		Did not receive official earthquake information	Local community	
				< 15 min	CCTV check! No significant sea level changed	Crisis Center - SATKORLAK													
	5.38 pm	Second Earthquake (6.2 RS)		5.30 pm	Informed the community (no tsunami) through amateur Radio	Crisis Center - SATKORLAK													
				6.00 pm	Minangkabau airport closed	Airport authority													
	< 5 min	Earthquake Warning	BMKG	6.30 pm	Earthquake Live Broadcast	RRI					Information collection	JICA							
				7.00 pm	Official earthquake information from local BMKG (Padang Panjang) - by radio	SATKORLAK													
	8 pm	Coordination meeting: 1) Sent TRC team 2) Disaster Level: Province 3) Emergency Response Phase = 2 months 4) Coordinator for both National & International aspect= BNPB	Vice President	8pm - 11 pm	1) Communication Posko established 2) First unofficial meeting	SATKORLAK	8pm - 12 am	1) First Gathering 2) Limited site visits	3 SATLAK members (Kab PP)		Decided to dispatch pre-investigation team from JICA Indonesia and Investigation Team from JICA Headquarter			Preparation	UNOrgs AusAID		Started looking for information from Radio & TV (those who owned portable generator) Self initiative SAR operation (limited coverage)	Local communities	
	9pm - 12 am	Coordination meeting	BNPB		Initial Emergency health assistance in City of Padang	Dinas of Health; Hospitals, Puskesmas, etc		1) Official SATLAK Meeting 2) Limited site visits	SATLAK Kota										
				12.00 am	Padang airport reopened (9.45 pm) Official meeting	Airport authority SATKORLAK													
2nd Day (1 Oct)				1.30 am	Governor landed in Padang, followed by coordination meeting	Governor													
	6 am - 12 pm	Ministers headed to Padang	Public Works, Social, Health, Home Affairs, Transportation & Public Welfare, BNPB	6am - 12 pm	Posko tent set up in front of Governor residence	SATKORLAK	6am - 12 pm	Distribution of tents & limited food items.	SATLAK & Dinas of Social Kab. PP					UN Joint Mission left for Padang	UNOCHA, WHO, UNDP, UNICEF, etc.		Media & NGOs left for Padang		
		Other teams left for Padang	BNPB Rapid Response Team & others		Coordination Meeting	6 Ministers, Governor & SATKORLAK		Posko established	SATLAK Kota	12:10 am	JICA Investigation Team(3 persons) left Japan.	JICA							
		WS Main Posko established (BNPB assisted SATKORLAK)	BNPB		WS Main Posko established (BNPB assisted SATKORLAK)	SATKORLAK		Bupati arrived in Kab. PP	Kab. PP					UNDAC team arrived in Padang to support international SAR teams	UNDAC		Medical teams & relief goods	PMI	
		Implemented Site visits	BNPB + 6 Ministers		Started Massive SAR operation	TNI, Basarnas		Started Massive SAR operation	TNI, local communities		Pre-Investigation Team from JICA Indonesia arrived in Padang and Started Information Collection for Accepting Japan Disaster Relief Team	JICA					Started Massive SAR Operation	local communities; NGO: TNI	
		Emergency clean water facilities, toilets and tents	Public Works		Opening two field hospital	WS Health Crisis Center											Medical supplies & personals and food items	South & North Sumatera government	
	1 - 5 pm	Sent 10,000 tents	Social Affairs	1 - 5 pm	Sent Relief goods to Kab.Pesisir Selatan	SATKORLAK	1 - 5 pm	Emergency Health assistance	Dinas of Health; Hospitals, Puskesmas, etc					Rapid response Team (4 member) arrived in Padang	AusAID		Supported emergency response activity	various national organization	
		Emergency coordination Post to support airlines offering extra flights	Transportation		Provided heavy equipment for USAR operation in city of Padang	SATKORLAK													
		Prepared 15,000 tons of Rice	BULOG		Stand by 24 hours in Posko	SATKORLAK													
		Deployed health personals & medical supplies	Dep of Health																
		Mobilization of SAR & health assistance personals	TNI																
		Provided air transportation for relief goods	TNI - Air Force																
		Deployed naval hospital	TNI - Marine																
		GOI requested for International USAR assistance	BNPB																
	6pm - 12 am	Set up Coordination desk at the airport of Padang	BNPB	6pm - 12 am			6pm - 12am	Picked up Posko tents in Minangkabau Airport	SATLAK Kab PP					Set up desk at the airport of Padang for coordination (OCHA)	OCHA				
	Coordinating the relief goods transportation from Jakarta to Padang	BNPB					Initial damage information	SATLAK Kota					UN OCHA coordinating the 1st UN/NGO/Donors meeting	OCHA					
							SAR operation ended in Kota Pariaman	SATLAK Kota	9:05 pm	Rescue team (61 persons) & Medical team (14persons) left Japan	Rescue & Medical team		UN OCHA set up coordination desk in WS Posko	OCHA					
													Number of International USAR teams arrived in Padang						

Table 2.2.7 Emergency Response Operations by each Implementer in Chronological Order (Day 3 to Day 5)

	BNPB and National Level Agencies			SATKORLAK and Provincial Level Agencies			SATLAK and Kab/Kota level Agencies (Kab PP & Kota Pariaman)			Government of Japan (JICA) (Rescue team, Medical team)			International Agencies & Donors			Others (domestic NGO, local communities, etc)		
	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor
3rd Day (2 Oct)	6am - 12 pm	Lead the emergency response operation	BNPB	6am - 12 pm	Distributed relief goods & Coordination of Humanitarian relief	SATKORLAK	6am - 12 pm	Official Posko established	SATLAK Kab PP	3:05 am	arrived at Jakarta.	Rescue & Medical team	Massive International USAR operation in city of Padang	Australian (ADF & USAR team) arrived and start operation in Padang	AusAID	Providing assistance in Food distribution	surrounding provinces	
								Distribute limited relief goods to community	Both SATLAK	9:40 am	arrived at Padang	Rescue & Medical team						Additional health team
	Started collect Damage info	SATLAK Kab PP						Secured the space for the Base of Operation in front of the governor's house of west Sumatra in Kota Padang.										
	President visited Padang	President						Implement survey on medical needs in the city and suburbs.	Medical team									
	1-5 pm	Lead the emergency response operation	BNPB					1 - 5 pm	President visited Pariman	President	12:10 pm	Second group of medical team (9 persons) left Japan.						Medical team
										BASRNAS arrived in Kab PP	Kota Padang							
6pm - 12 am			6pm - 12 am	Coordinating operational of heavy equipment to recover transportation route	SATLAK Kab PP													
					Started publishing damage information	SATLAK Kab PP	5:20 pm	Start the Rescue activity with rescue dogs at Anbanchan Hotel.	Rescue team	Sending heavy equipment for SAR	Jambi Prov.							
4th Day (3 Oct)	Lead the emergency response operation	BNPB	Continuation of previous day activity	Continuation of previous day activity	Continuation of previous day activity				0:00 am - 4:30 am			Started the search effort at Central Market.	Rescue team	International NGOs arrived in Kab. PP	Rallying together to support victims	local communities		
									11:45am	Started the search effort at collapsed stores, schools, banks, and other buildings on the Andaias street in Padang.	Rescue team							
										Selected in front of Kota Pariaman office as the site to operate, Set up simple tent, Start the clinic, 43 people were treated.	Medical team							
										The Second Team Arrived at Padang and Joined in the first Team.								
										Accepted the information that 200 people were buried, dispatched 1 small team to Nagari Tandike Village in Kab. PP.	Rescue team							
5th Day (4 Oct)	Lead the emergency response operation	BNPB	Continuation of previous day activity	Continuation of previous day activity	Continuation of previous day activity	SATKORLAK + BNPB			morning	Rescue activity at Rocky Hotel in Padang.	Rescue Team	Start humanitarian relief including health assistances	PMI					
										Base of operation accepted a female (a suspected skull fracture), treat her and send her to the Hospital in the city.	Rescue Team							
	Started operating open kitchen in selected area	Social Affairs								Search the 6 sites above in total at this time, but fail to find survivors.	Rescue Team							
										Emergency Relief goods arrive at Padang by chartered plane from Singapore.								
										Set up Cross Tent as the Field Clinic, start full-scale treatment. Treat 140 people.	Medical team							

Table 2.2.8 Emergency Response Operations by each Implementer in Chronological Order (Day 6 to 1 Month)

	BNPB and National Level Agencies			SATKORLAK and Provincial Level Agencies			SATLAK and Kab/Kota level Agencies (Kab PP & Kota Pariaman)			Government of Japan (JICA) (Rescue team, Medical team)			International Agencies & Donors			Others (domestic NGO, local communities, etc)						
	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor	Time	Activity	Actor				
6th Day (5 Oct)		Closure of USAR phase (4 pm)	BNPB		Continuation of previous day activity. Provincial Government confirmed the emergency phase will last for one month rather than the two months initially declared	SATKORLAK + Prov. Government		Continuation of previous day activity		morning	Made a disision of the end of urban search and rescue activities with SATKORLAK and coodinating center of UN.	Rescue team		USAR ended (4 pm)								
										17:30 pm	Implemented the handover ceremony of Emargency Relief goods at the governor's house.											
		Lead the emergency response operation	BNPB							8:30 am-7:15 pm	Opened the field clinic, and operated medical activities. Treat 194 people.	Medical team							International teams shifted to Humanitarian Relief			
7th Day (6 Oct)		Lead the emergency response operation	BNPB		Continuation of previous day activity	SATKORLAK		SAR & death victims evacuation were officially ended, but still extended in selected area	SATLAK Kab PP	morning	Completed preparation for withdrawal.	Rescue team		Australian USAR left Padang	AusAID							
										2:26 pm - 4:00 pm	Trip (Kota padang- Jakarta)				Other USAR teams left Padang							
										8:30 am - 19:00 pm	Implemented of medical care. Treat 280 people	Medical team										
											Because of damaging local hospital, chronic disease patients also visit in addition to injuries caused by disasters. The number of visitors become too large.											
Week 2 - 4 (7 Oct-31 Oct)		Continued to lead the Emergency response operation	BNPB		Started DALA (Damage and Loss Assessment)	Bappeda		Local SAR & death victims evacuation ended in 13th day (Kab. PP)	SATLAK Kab. PP		Provided activity information to the embassy and deputy of BNPB(7th Oct)	Rescue team		WB support BAPPEDA to prepare DALA								
		ULP (relief fund) distribution	BNPB		ULP distribution to Kab/Kota level	SATKORLAK		ULP distribution to community	Both SATLAK	Left Jakarta with JL726(7th Oct), arrive at Narita airport in the morning on 8th Oct, dissolve themselves.	Rescue team	US Navy medical team ended operation										
		Relief goods distribution to remote & isolated area using helicopters	BNPB, TNI & Police		Damage information verification	Both SATLAK				Implimented medical care every day till 12th Oct. in total, 1,447people were treated.	Medical team	Assisted the relief goods distribution to remote & isolated area with helicopters										
		Posko ended (31st October)	BNPB							Posko ended (31st October)				Posko ended (31st October)						Confirmed the schedule of withdrawal, providing medical supplies, and trip to JPN on 11th Oct.	ADF ended operation (3rd week)	AusAID
								AusAid office closed (5th November)	AusAID	Some NGO were still active until Dec 2009												

1) **BNPB and National Level Agencies**

Table 2.2.9 shows the chronology of emergency response operations conducted by BNPB and the central government agencies. After the earthquake has occurred, BMKG transmitted SMS through RANET to relevant organizations in all levels. However, due to electrical and telecommunications failures, local government officials particularly the Kabupaten/Kota level was unable to receive information about the occurrence of an earthquake. Under the prevailing situation, no report from the local government was made about the extent of damage in the area. The earthquake which occurred just after working hours, made it also difficult to gather information on the scope of damages.

At 8 PM, less than 3 hours after the earthquake occurred, the Vice President held a coordination meeting with relevant ministers about the emergency response operations to be undertaken. The result was to deploy a number of teams including some ministers and head of BNPB for the transport of emergency relief supplies, swift response team and medical personnel at 6 AM the following morning from Halim Airport. Certain troubles however were encountered on the availability of aircrafts because only one plane landed from Halim so that the other teams including the UN group had to depart from Soekarno Hatta Airport at 9 AM.

After the arrival of the team before noon time, the first coordination meeting with province SATKORLAK was held at around noon time on 1 October. Consequently, substantial emergency response operations had commenced thereafter.

Table 2.2.9 Emergency Response Operations at the National Level

DAY 1 (30 September)	
<p><i>On 30 September at 5:16 pm, a 7.6 intensity RS earthquake (at depth of 71km) struck off the coast of West Sumatra.</i></p> <p><i>A second 6.2 magnitude RS earthquake struck at 5:38 pm.</i></p> <ul style="list-style-type: none"> ▪ <i>Telecommunications and power lines broke down disrupting communication networks, phone lines and electrical supply</i> ▪ <i>Minangkabau International Airport closed and re-opened at 9.45 pm</i> 	
~ 5 minutes after the earthquake	<ul style="list-style-type: none"> ▪ USGS disseminated information about the earthquake ▪ BMKG prepared & distributed information about the earthquake. They alerted the inhabitants of aftershocks and persuaded the public to stay outdoors. Due to major electrical and communications¹ breakdown, relay of this information to local governments was not possible.
8 pm	<ul style="list-style-type: none"> ▪ The Vice President held a coordination meeting with relevant ministers to discuss emergency measures to be taken. The result was to deploy a team including some ministers and head of BNPB for bringing in of emergency relief goods, rapid response team and medical personnel and to visit Padang the following morning.
> 8 pm	<ul style="list-style-type: none"> ▪ TNI has arranged for transportation support, logistics and evacuation of affected inhabitants to refuge centers. ▪ BASARNAS deployed teams from regional offices in Sumatera (Medan & Pekanbaru) to Padang City and Padang Pariaman District
DAY 2 (1 October)	
Morning	<ul style="list-style-type: none"> ▪ The first plane left Jakarta for Padang. Some Ministers² including the Heads of BNPB were the first team to arrive in Padang at about 9 am. The other teams followed thereafter, including BNPB Rapid Response Team & the media.
Noon	<ul style="list-style-type: none"> ▪ Several Ministers visited Padang & Pariaman. ▪ BNPB set up a command post in Padang City, provided Rapid Response Team & relief supplies. ▪ PU provided potable water facilities, tents and emergency toilets. ▪ The Social Affairs group provided 10,000 tents for accommodations of displaced victims. ▪ The Ministry of Transportation opened numerous Emergency Coordination Posts to support airlines offering extra flights to accommodate the multiplying humanitarian aid workers bound for the affected areas. ▪ The State Logistics Agency (BULOG) donated 15,000 tons of rice. ▪ Health Department provided additional funds in support to emergency health responses; deployed health personnel; and medical supplies. ▪ Numerous other health institutions also provided health assistances. ▪ The West Sumatra Crisis Center Health Department opened two field hospitals in Padang. South and North Sumatra governments also sent medical supplies and personnel, and food supplies. ▪ TNI has mobilized personnel to conduct SAR & health assistances. (1 ambulance and 68 personnel) ▪ The Air Force provided air transport in support to delivery of aid relief supplies. ▪ Marine National Armed Forces of Indonesia deployed an offshore/naval hospital to Padang. ▪ POLRI provide 2 planes (F-50), a helicopter & some personnel. ▪ Emergency response teams from various national organizations also deployed support emergency responses. ▪ The national Health Department deployed 200 medical personnel. ▪ The Indonesian Red Cross (PMI) sent medical team and supplies. ▪ UNDAC³ deployed a Team to Padang in support to International SAR teams
Night	<ul style="list-style-type: none"> ▪ OCHA coordinated the first UN/NGO/Donor Coordination Meeting in Padang, with

¹ Two cellular operator are still operated, but with extremely heavy traffic.

² Coordinating Minister of People Welfare (Kesra), Transportation (Dephub), Social, Health and PU

³ United Nation Disasters Assessment & Coordination

	<p>the house of the Mayor as the base of operations.</p> <ul style="list-style-type: none"> ▪ BNPB & OCHA set up reception desks at Padang Airport. ▪ OCHA has set up a coordination counter in West Sumatra POSKO at the Governor's residence. ▪ A number of international SAR teams arrived in Padang to support the government⁴ emergency operations.
DAY 3 (2 October)	
Day/Night	<ul style="list-style-type: none"> ▪ ICT Emergency Response Team established an internet connection through VSAT in POSKO⁵. ▪ BNPB continued to lead the emergency response operation in West Sumatra by providing SAR, NFIs (non food items), food supplies, temporary accommodations and coordination of social humanitarian activities.. ▪ The military sent one hospital boat, "KRI Suharso" to Padang. ▪ TNI had activated crisis center at 4 points; provide food & NFI items, heavy equipments, personnel, etc. TNI also had mobilized 4 ships, 5 planes & helicopters to support the relief aid transportation. ▪ BASARNAS with local & international community started the massive USAR activities in Padang. ▪ Neighboring provinces continued to provide assistances for the distribution of food supplies and NFI assistance. ▪ Lampung province deployed additional health teams and Jambi Province mobilized heavy equipment to support SAR. ▪ Community members convened to assist victims. ▪ More SAR teams from Germany, Hungary and the United Kingdom were deployed to Padang on 3 October. A number of SAR teams, medical personnel, assessor teams and water purification experts were mobilized. Some were on standby ready to mobilize upon notice. It is however noted that based on the government's assessment, sufficient SAR personnel were already deployed. ▪ A number of International and national NGOs have deployed teams to the affected areas to provide medical supplies and personnel; logistical support; NFIs; potable water; bulldozers; clothing; food items; generators; mobile health clinics; fuel; post-traumatic counseling for affected children and radio station kits to channel information to affected communities.
DAY 4 (3 October)	
Day/Night	<ul style="list-style-type: none"> ▪ BNPB continued to lead the emergency response operation in West Sumatra providing SAR, NFIs, temporary shelters and the coordination of the social aspects of humanitarian community. ▪ Water engineers were deployed to help repair damaged utilities of water facilities in Padang. ▪ Meeting between vice president & governor of WS: no more additional SAR team is required. ▪ BASARNAS regional office in Medan sent some equipment and 2 small planes for assessment activities in the isolated area. ▪ 16 SAR teams were deployed on the ground with 48 search dogs. International SAR teams have been supporting and complementing national SAR teams operating in various disaster sites. A Russian Field Hospital with 41 staffs; three trucks; two buses; one van were deployed to Padang Pariaman district. Rescue assessments have been completed in 24 areas; early reports show that there is limited opportunity for heavy rescue operations. Assessments were planned for 5 October for nine other locations in Padang and three sectors outside Padang (mainly small towns and villages). ▪ On 5 October, a team of 75 French civil security personnel, six search and rescue dogs; 25 tons of equipment and two personnel from the MFA Crisis management centre arrived in Padang. The team provided support for SAR, health care and potable water supply and sanitation.

⁴ Including: Qatar, United Arab Emirates, Singapore, Australia, Germany, Turkey, Korea, Switzerland, Japan, Hungary and Russia. In addition to personnel a number countries have provided emergency relief items; technical support; IT equipment; medicine; equipment.

⁵<http://mediacenter.or.id/bencana-alam/tahun/2009/bulan/10/tanggal/03/2400/koneksi-internet-gratis-di-padang-sudah-tersedia.html>

Day 5 (4 October)	
Day/Night	<ul style="list-style-type: none"> ▪ BNPB continued to lead the emergency response operation in West Sumatra by providing NFIs, food items, temporary shelters and coordination of complementary support for humanitarian community. ▪ BNPB recommended the closure of the Rescue Operations period. International SAR teams have been informed to prepare for departure; a departure centre was set up at the airport. Out of 21 teams, 13 already departed, four were scheduled to depart within the next 3 days; four teams remained for transition in providing humanitarian assistance. Teams were requested to share exit plans for the accommodation of other teams on available space for chartered flights.. UK SAR team carried a structural safety survey of two large buildings and a school in Padang. ▪ TNI had provided following supports: 1,600 soldiers, relief aid transportation by planes & ships from Jakarta and 1 hospital boat ▪ POLRI had mobilized 1,200 police to establish the security, support the SAR activities, relief aid distribution, health services, etc. POLRI ha provided 3 planes F-50 and 5 helicopters.
Day 6 (5 October)	
Day/Night	<ul style="list-style-type: none"> ▪ The Government of West Sumatra has confirmed that the emergency period will last for one month instead of two months as initially estimated. The Humanitarian Response Plan in support of the Government will last for 90 days. The reconstruction and rehabilitation stage will commence on 1 November and scheduled for completion by March 2010. ▪ BNPB announced the closure of the Rescue Operations period (at 4 PM). ▪ UNDAC reported the presence of 112 NGOs and seven UN organizations conducting humanitarian operations in West Sumatra.
Day 7 (6 October)	
Day/Night	<ul style="list-style-type: none"> ▪ BNPB reported to commence the emergency recovery period by the second week of October for completion by the end of October. All data will be collected in two weeks for analysis. The four major priority areas are: Agam; Padang Pariaman; Padang; and Pariaman City. ▪ Listed hereunder is the timetable of government activities. <ul style="list-style-type: none"> ○ Evacuation: 1st & 2nd week of October ○ Provision of basic services: Up to end of October ○ Emergency recovery period: 2nd - 4th week of October ○ Data collection of damages: 2nd - 3rd week of October ○ Verification of damages: 3rd – 4th week of October ○ Community grouping: 4th week of October up to 2nd week of November ○ Training to be conducted by structural experts: 4th week of October to 1st week of November ○ Fund disbursement: 1st – 2nd week of November ○ Physical rehab recon: mid November up to end of April 2010 ▪ Distribution of relief items in isolated areas is conducted by helicopters of the Indonesian Air Force. ▪ National USAR teams continued to conduct search operations of possible casualties in collapsed buildings. ▪ With the continuing departure of international SAR teams, focus was shifted to humanitarian coordination due to the increasing number of humanitarian team arrivals in Padang.
Week 2 – 4 (7 October – 31 October)	
Day/Night	<ul style="list-style-type: none"> ▪ BNPB continued to lead the emergency response operation in West Sumatra by providing NFIs, food items, temporary shelter and the coordination of complementary support from the humanitarian community. ▪ POLRI provided support in identifying the disaster victims and set up trauma centers in Kota Padang & Kabupaten Padang Pariaman ▪ TNI& POLRI checked the isolated area & provided security in relief aid distribution points. ▪ TNI also supported the rubble clearing activities.

	<ul style="list-style-type: none"> ▪ WB in coordination with BAPPEDA started the Damage and Lost Assessment (DALA) ▪ POSKO ended its operation on October 31, 2009.
After 1 Month (1 November-)	
Concerned local government agencies in coordination with BAPPEDA will pursue all rehabilitation and reconstruction works.	

Source: 1) Dr. Priyadi Kardono – Head of Center for Data and Information (BNPB), 2) OCHA Situation Report (No.1 – No.20), 3) Media publications, 4) Daily Pusdalops Reports (1st – 31st October 2009).

2) Province (West Sumatra Province SATKORLAK)

Table 2.2.10 shows the chronology of emergency response operations conducted by West Sumatra Province SATKORLAK. Following the occurrence of the earthquake, BMKG transmitted SMS through the RANET to members of SATKORLAK. However, as mentioned earlier, due to electrical breakdown, the telecommunication system became inoperable so that the first official information was obtained only after 2 hours through HT from the local BMKG in Padang Panjang.

The EOC building was slightly damaged and due to office space constraints temporary accommodation has to be set up by tents in front of SATKORLAK office. At 8 PM, less than 3 hours following the occurrence of the earthquake, the first unofficial meeting was held with the participation of few government officials. After the meeting, controlled emergency response operations commenced. After the arrival of the investigation team from the central government the following morning, a coordination meeting was held and thereafter substantial emergency response operations started.

At the start, information from Kota Padang was limited. Particularly, insufficient information could only be obtained from the suburban areas including Kabupaten Padang Pariaman and Kota Pariaman where severe damage could most likely have occurred due to their proximity to the epicenter.

The emergency response operations in West Sumatra have comparatively improved due to the experience gained from the aftermath of the 2007 earthquake. The awareness of the local government/community from previous disasters is considered to have enhanced in general their capacity/capability towards emergency response operations/activities.



Entrance to Rupsdalops at the Governor House
 Left side table is Information Desk for distribution of information on calamities
 Setting of Wi-Fi connection in this area



Information on Havoc by Kota/Kabupaten



Information Desk and Head of EOC, Mr. Ade Edward



Recruitment Advertisement (car rental, interpreter, hotel, and etc.)



Photos about the Destructions



Mapping Information (Epicenter and Map of Kabupaten/Kota)



UN On-site Operations Coordination Center at the Governor's House



Delivery of Relief Supplies by Trucks from the Governor's House



Setting of National Level Station at the Governor's House Main Station of BNPB provided with Video Communication System Center



Donor Coordination Meeting at BAPPEDA BAPPENAS and BNPB hosted the meeting with the participation of AusAID, JICA, UNDP and WB



SAR Activity at Ambachang Hotel



Red Cross Ship at Teluk Bayur Seaport



Source: Oriental Consultants Co. Ltd. Pictures taken on 5 - 7 October, 2009

Table 2.2.10 Emergency Response Operations at the Provincial Level

DAY 1 (30 September)	
<p><i>On 30 September at 5:16 pm, a 7.6 magnitude RS earthquake at depth of 71km struck off the coast of West Sumatra;</i></p> <p><i>A second 6.2 RS earthquake struck at 5:38 pm.</i></p> <ul style="list-style-type: none"> ▪ <i>Telecommunications and power lines broke down disrupting communication networks, phone lines and electrical supply</i> ▪ <i>Minangkabau International Airport closed and reopened at 9.45 pm</i> 	
6.30 pm	<ul style="list-style-type: none"> ▪ EOC / crisis center building was slightly damaged. All communication lines to BNPB/BMKG were out of service due to electrical breakdown. RANET⁶ not functioning. ▪ Through the CCTV camera in Padang beach, EOC confirmed no Tsunami threat. EOC staff started to contact the local radio station with HT to disseminate the information. RRI provided live broadcast about the earthquake in Padang.
7 pm	<ul style="list-style-type: none"> ▪ First official earthquake information was obtained from BMKG Padang Panjang through HT ▪ Inhabitants with portable generator started to look for information from the radio and/or TV.
8 pm	<ul style="list-style-type: none"> ▪ Communication Emergency POSKO was established in front of the EOC building. ▪ First unofficial meeting was held with few government officials. ▪ Dinas Kesehatan (health institution) started coordination for medical treatment activities. ▪ TNI/SAR started SAR activities in limited places. Numerous community based gatherings actively mobilized at their own initiative.
12 pm	<ul style="list-style-type: none"> ▪ First official meeting chaired by the Vice Governor (Kalakhar SATKORLAK) was held at the Governor’s residence. All head of government units attended the meeting. Meeting focused on action plans & coordination.
DAY 2 (1 October)	
1.30 am	<ul style="list-style-type: none"> ▪ Governor landed in Padang
Morning	<ul style="list-style-type: none"> ▪ POSKO tent was established in front of the Governor’s residence. ▪ First government official including the BNPB Head and concerned Ministers from Jakarta landed in Padang. ▪ Coordination meeting was held at the Governor’s residence ▪ Site visits. One team remained in Padang to survey the inner city. The other team surveyed other regions, including Padang Pariaman, Pariaman, Agam, among others.

⁶ Earthquake information dissemination system, provided by BMKG, installed in EOC

Noon	<ul style="list-style-type: none"> ▪ BNPB & SATKORLAK set up a command post with POSKO tent in front of the Governor's residence. ▪ Rapid respond team (TRC) from BNPB landed in Padang and started immediate site surveys. ▪ UN Joint mission together with other NGOs and media arrived in Padang⁷. ▪ GOI requested for International USAR⁸ assistance
Night	<ul style="list-style-type: none"> ▪ First relief supplies from BNPB arrived in Padang. ▪ First USAR team departs for Padang
DAY 3 (2 October)	
morning	<ul style="list-style-type: none"> ▪ The President landed in Padang for on-site survey. ▪ First international USAR team arrived in Padang at 7 am. USAR operated round the clock.
Noon	<ul style="list-style-type: none"> ▪ Arrival of the President in Pariaman.
Night	<ul style="list-style-type: none"> ▪ SAR activities carried on, provision of relief goods, among others. ▪ Distribution of relief supplies to local government (SATLAK) started and ended on October 31.
Day 4 (3 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of SAR activities, provision of relief goods, and distribution to SATLAK. .
Day 5 (4 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Dissemination of Press Releases started.
Day 6 (5 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities ▪ USAR period ends at 4 pm. ▪ Provincial Government confirmed the emergency phase to last for one month instead of two months as initially estimated.
Day 7 (6 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities.
Week 2 – 4 (7 October – 31 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Distribution of ULP⁹ to local governments started for redistribution inhabitants whose houses were hardly damaged. ▪ Local SAR activity ended at the 13th day after disaster occurred (with the last at hotel Ambachang).¹⁰ ▪ Inventory of residential houses/building began on the 15th by Andalas University). It was completed on 12 December 2009. (The data was used for the Action Plan was from October 27, 2009). ▪ 2nd Week: The Governor made an official pronouncement about the extent of province-wise damages. ▪ TNI & other International donors started distribution of relief goods to isolated areas by helicopters. ▪ POSKO ended its operations on October 31, 2009
After 1 Month (1 November-)	
All rehabilitation & reconstruction projects will be implemented by related local government agencies in coordination with BAPPEDA.	

Source: 1) Mr. Sudirman Gani – Head of Bakesbangpol & Limas (Secretary of SATKORLAK), 2) Mr. Ade Edward – Head of Community Protection Unit, Bakesbangpol & Limas (Head of POSKO Secretariat), 3) UNOCHA Presentation: International Earthquake Response – for International SAR information.

⁷ Situation Report no 2.

⁸ USAR = Urban Search and Rescue

⁹ ULP = Uang Lauk Pauk, a policy that each victim of the earthquake will receive IDR 5000 (50 cents) per day – one household will be paid maximum 5 person (situation report no.11).

¹⁰ <http://mediacenter.or.id/berita/tahun/2009/bulan/10/tanggal/12/2731/evakuasi-pencarian-korban-di-padang-dihentikan.html>

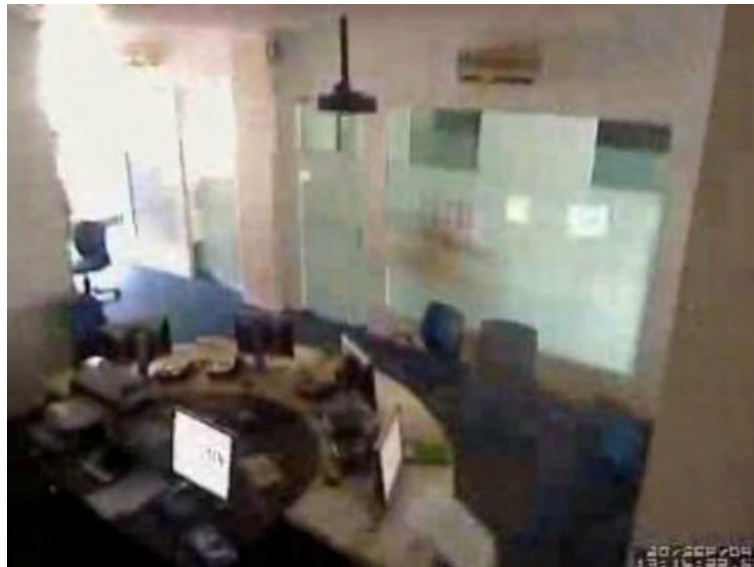


Figure 2.2.9 EOC of West Sumatra Province during Seismic Tremors

Figure 2.2.10 and Figure 2.2.11 illustrate the layout of West Sumatra Province Emergency Response Headquarter (West Sumatra RUPSDALOPS). The layout was discussed in the meeting on 1 October at 4 am. Due to limited space in EOC which was also slightly damaged, the West Sumatra RUPSDALOPS provisionally established their base of operation at the Governor's House together with the front space of the Governor's Office adjacent the road.

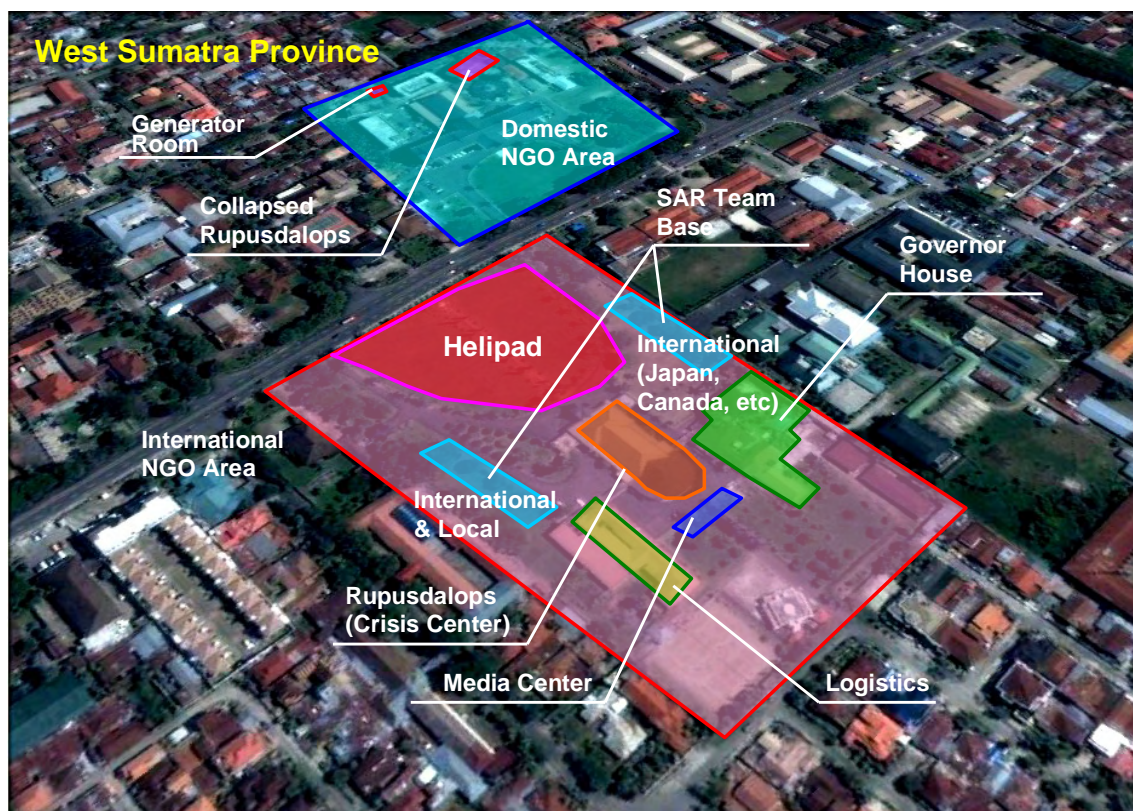


Figure 2.2.10 Perspective View of West Sumatra Emergency Response Headquarters

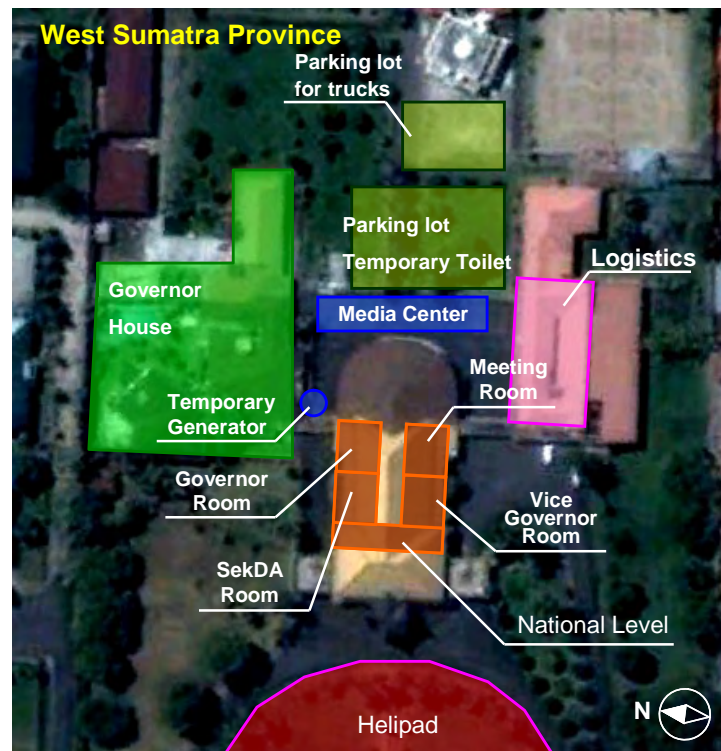


Figure 2.2.11 Layout of West Sumatra Emergency Response Headquarter (Main Part)

3) Kabupaten (Kabupaten Padang Pariaman/Kota Pariaman)

Table 2.2.11 and Table 2.2.12 show the layout of the base of operations for emergency response of Kabupaten Padang Pariaman and Kota Pariaman SATLAK. As mentioned earlier, the damages brought about by the earthquake to the electrical supply system in the calamity areas have caused telecommunication facilities inoperable. Therefore, while BMKG sent SMS through RANET to members of SALAK the message was not received. As a result, initial information was relayed through the TV for some with portable generators or over the Radio.

Because office buildings were severely damaged, the Head of SATLAK opted to establish an EOC base at the open space in Alun Alun in front of Bupati Office for Kabupaten Padang Pariaman, and the open space in front of the Mayor's Office for Kota Pariaman. At 8 PM, less than 3 hours following the earthquake, the first unofficial meeting attended by few government officials was held, and after the meeting controlled emergency response operations was initiated. Because of the occurrence of heavy downpour in the area that time, field surveys could not be implemented smoothly, and twilight was fast approaching. Consequently, the inspections were decided to be undertaken the following morning due to the absence of lighting facilities.

Scared of the occurrence of tsunami, inhabitants along the coastal areas fled to higher grounds causing chaos and traffic jams. Attempts were also made by the community to rescue casualties trapped inside collapsed buildings and saved many of people alive.

At the start, most of the relief goods were transported to Kota Padang area for gradual transshipment to Kabupaten Padang Pariaman and Kota Pariaman region based on information about the destructions in the locality.



POSKO at Kota Pariaman. The Office Building in Kota was damaged and no longer usable. Temporary accommodation had to be established in front of the building



**Registration Desk
 Guest has to register at the Desk. Information about the status of damage is obtainable from the Desk**



Japan Medical Team Post in Kota Pariaman Office for treatment of casualties



Patients Seating and Waiting for Medical Treatment



Disaster Information for Kota Pariaman



Stock Room inside the Damaged Kota Padang Office



POSKO at Padang Pariaman. Large open space in front of Kabupaten Office



Information Desk at Kabupaten Padang Pariaman



Damage Information Sheet prepared by each Kecamatan (Sub-District)



Daily Press Meeting at Kabupaten Padang Pariaman, with Bupati (Head of District), and Head of Police



Arrival of Relief Goods from Saudi Arabia



Bupati of Kabupaten Padang Pariaman Inspecting Areas with Significant Landslides



POSKO at Kabupaten Padang Pariaman

Heliport at Kabupaten Padang Pariaman

SAR operations hindered by Erosions

Unloading of Relief Goods at Kecamatan POSKO

Source: Oriental Consultants Co. Ltd. Pictures taken on 5 - 7 October, 2009

Table 2.2.11 Emergency Response Operations in Kabupaten/Kota Level (Kabupaten Padang Pariaman)

DAY 1 (30 September)	
<p><i>On 30 September at 5:16 pm, a 7.6 magnitude RS earthquake at depth of 71km struck off the coast of West Sumatra;</i> <i>A second 6.2 magnitude RS earthquake struck at 5:38 pm.</i></p> <ul style="list-style-type: none"> ▪ <i>Telecommunications and power lines broke down disrupting communication networks, phone lines and electrical supply.</i> ▪ <i>Minangkabau International Airport closed and reopened at 9.45 pm</i> ▪ <i>It was heavy rain in Padang Pariaman</i> 	
5 – 8 pm	<ul style="list-style-type: none"> ▪ There was no official information from BMKG, BNPB or provincial government to SATLAK. ▪ RANET¹¹ was not operational. ▪ SATLAK was unable to alert the community. ▪ People started to look for information from the radio or TV for those who own portable generators.
~ 8 pm	<ul style="list-style-type: none"> ▪ Convening of 3 SATLAK members (Kalakhar¹², Secretary + POSKO Coordinator) – for unofficial meeting.

¹¹ Earthquake information dissemination system, provided by BMKG. 1 (one) device is installed in Kesbanglimas office of Kab. Padang Pariaman. It will sent up SMS automatically to registered users if any earthquake occurred.

¹² Kalakhar = Ketua Pelaksana Harian = SATLAK daily operational Head → Vice Bupati; Head of SATLAK is Bupati.

	<ul style="list-style-type: none"> ▪ Kalakhar was designated to prepare for the distribution of tents for the community. ▪ Collection of information was attempted. Site inspections limited. ▪ No definite activity was undertaken for this day.
DAY 2 (1 October)	
Morning (6 am)	<ul style="list-style-type: none"> ▪ Arrival of inhabitants from Kecamatan to SATLAK & the Social Department. 23 temporary shelters (tents) were provided. Dinas Social distributed limited food supplies to the victims.
Noon	<ul style="list-style-type: none"> ▪ Kalakhar directed all Camat¹³ members to gather food supplies to be paid afterwards. SATLAK did not stock food supplies. ▪ Kalakhar directed to establish temporary POSKO in the meeting room of Bupati office. ▪ Arrival of Bupati to Padang Pariman from Jakarta. First SATLAK official meeting conducted. Site inspections started immediately thereafter. ▪ SATKORLAK requested SATLAK to collect POSKO tents from Minangkabau Airport. This was the initial assistance of BNPB. ▪ The fire brigade prepared for emergency support in the event needed. ▪ Coordination for medical treatment of casualties victims in hospitals, community health center and field hospitals started.
Night	<ul style="list-style-type: none"> ▪ SATLAK collected POSKO tents from Minangkabau Airport.
DAY 3 (2 October)	
Morning	<ul style="list-style-type: none"> ▪ Establishing of POSKO disaster information hotline station in front of Bupati Office. Staffs were requested to be on 24-hour standby to be called at any moment as needed. ▪ Establishment of 17 POSKO to all Kecamatan level with offices to be located to Government owned buildings that were not destroyed by the calamity. ▪ Establishment of limited POSKO at selected Nagari level primarily for casualties of the disaster. ▪ Meeting chaired by Bupati for the preparation of the President's inspection. ▪ Gathering of information about destructions started to arrive from Kecamatan and Nagari level.
Noon	<ul style="list-style-type: none"> ▪ Arrival of BASARNAS from Kota Padang. ▪ Inspection of the President to Pariaman. ▪ Coordination of the mobilization of heavy equipments for the repair of access routes to isolated areas.
Night	<ul style="list-style-type: none"> ▪ Distribution of 1000 boxes of rice donated by the President. ▪ Information dissemination to the communities about the current condition by radio broadcast and amateur radio broadcasting. Reports were submitted to SATKORLAK (provincial government).
DAY 4 (3 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Relief goods started to arrive. ▪ Evacuation of selected landslide victims. ▪ Preparation of temporary evacuation sites and distribution of tents, blankets and food supplies. . ▪ Distribution of relief goods to 17 Kecamatan level POSKO. Distribution of goods by Kecamatan level POSKO to Nagari POSKO. In some cases, distribution to community field POSKO is made directly.
DAY 5 (4 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities

¹³ Head of Kecamatan

DAY 6 (5 October)	
Day/Night	▪ Continuation of previous day activities
DAY 7 (6 October)	
Day/Night	▪ Continuation of previous day activities,
WEEK 2 – 4 (7 October – 31 October)	
Day/Night	<ul style="list-style-type: none"> ▪ SAR activities were officially terminated, except in selected areas which were extended up to day 15. ▪ Local & Foreign NGOs actively participated in supporting SATLAK in early recovery activities. ▪ Emergency Respond activities were officially closed on 31st October, except in two Kecamatan¹⁴ which are still provided with numerous IDP accommodated in temporary shelters.

The following information was also gathered from Kabupaten Padang Pariaman for specific assistance relative to the emergency response operations.

1. NGOs that actively participated in emergency response operations should report to SATLAK before starting activities. However, there is no need to report the result of their activities at the closure of their support. This is the reason SATLAK has no documentation about their operational activities. Approximately 200 institutions participated during the emergency response period.
2. Operations of International SAR team closed around the second week of October. Other SAR activities were extended up to the 15th day in response to community needs. The first international team arrived by the 3rd or 4th day after disaster struck. Operations include SAR, evacuation, medical treatment and provision of basic needs.
3. Entry of BASARNAS from Kota Padang to Kab. Padang Pariaman on the 3rd day. There were no local BASARNAS at the Kab level in Padang Pariaman.
4. Distribution of UPL
 GOI made it a policy to provide financial support of IDR 5000 (USD 50 cents) per day to all victims whose houses were heavily damaged, at maximum of 5 members per household. In total, BNPB handed out some IDR 27 Billion (USD 2.7 million) based on the following mode of disbursement: Governor → Bupati → Camat → community.
 The financial support was disbursed thrice during the emergency response period, with the 1st disbursement on 8th October and the 2nd and 3rd disbursements on the 30th of October.
5. The Government also intended to provide financial supports to the deceased at IDR 2.5 million (USD 250) per victim. The death toll for Kab. Padang Pariaman alone is more than 600. Financial support for the deceased still remains to be disbursed and as of December 16 disbursement has not yet been made. The General Hospital of Kota Pariaman is the center for treatment of casualties. Other hospitals and certain PUSKESMAS in Padang Pariaman which were still operational during the emergency response also supported the treatment activities.

¹⁴ Kecamatan Patamuan & Kecamatan Lima Koto Timur

Figure 2.2.12 and Figure 2.2.13 illustrate the layout of Kabupaten Padang Pariaman Emergency Response Headquarters.

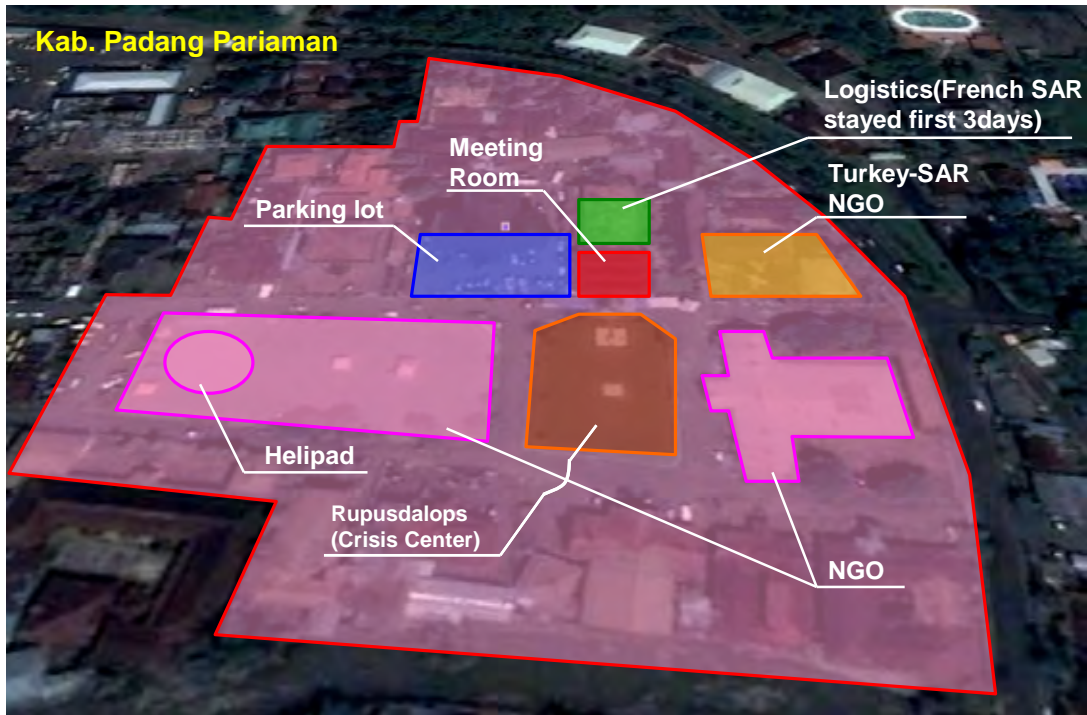


Figure 2.2.12 Perspective View of Kabupaten Padang Pariaman Emergency Response Headquarters

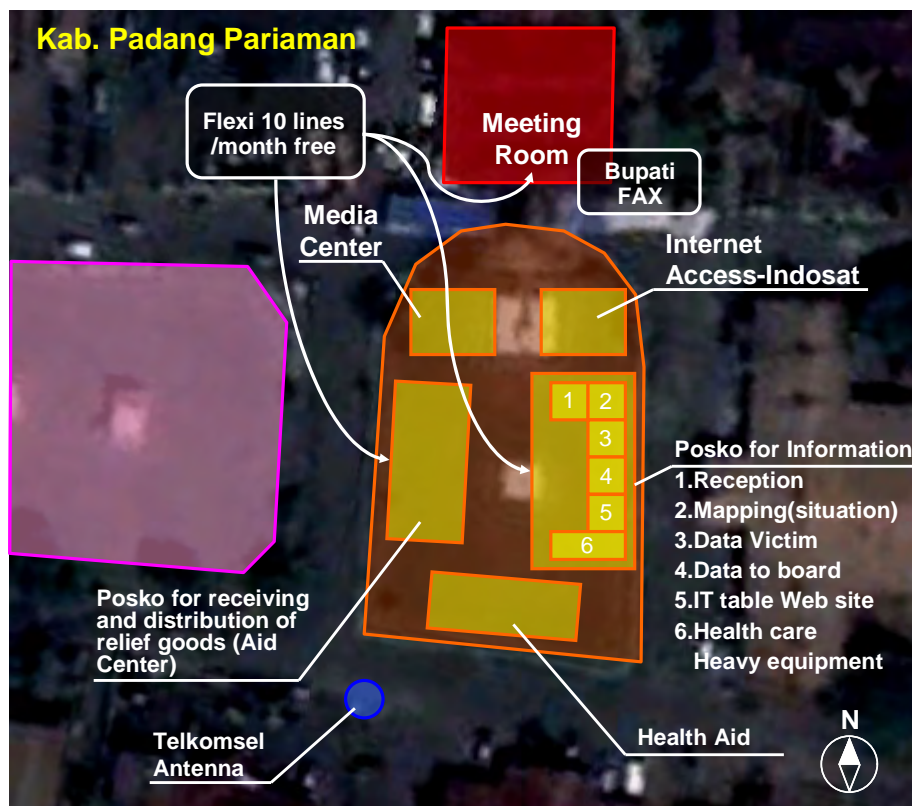


Figure 2.2.13 Layout of Padang Pariaman Emergency Response Main Headquarters (Main Part)

Table 2.2.12 Emergency Response Operations in Kabupaten/Kota Level in Kota Padang

DAY 1 (30 September)	
<p><i>On 30 September at 5:16 pm, a 7.6 intensity RS earthquake at depth of 71km struck off the coast of West Sumatra;</i> <i>A second 6.2 RS earthquake struck at 5:38 pm.</i></p> <ul style="list-style-type: none"> • <i>Telecommunications and power lines broke down disrupting communication networks, phone lines and electrical supplies</i> • <i>Minangkabau International Airport closed and reopened at 9.45 pm</i> • <i>Heavy downpour occurred in Pariaman at that time</i> 	
5 – 8 pm	<ul style="list-style-type: none"> ▪ There was no official information from BMKG, BNPB or provincial government to SATLAK. ▪ SATLAK was unable to alert the community ▪ After securing the safety of their loved ones, some members of SATLAK (including the mayor) made site inspections of their surroundings to assess the extent of damage. ▪ Some mobile phones especially for XL and Flexi although usable have very limited connection rate.
~ 8 pm	<ul style="list-style-type: none"> ▪ The first official SATLAK Meeting was chaired by Mayor in his residence. Almost all head units (<i>SKPD</i>) attended the first meeting, including PU, community leaders, military, police and others. ▪ SAR activities were initiated by the local community with the support of the military.
DAY 2 (1 October)	
Morning	<ul style="list-style-type: none"> ▪ SATLAK set up tents for POSKO at 3pm. ▪ POSKO was established in front of Walikota (Mayor) office.
Noon	<ul style="list-style-type: none"> ▪ Head of BNPB and 2 ministers inspected Pariaman. ▪ Coordination for (medical) treatment of casualties started. The focal point of treatment is RSUD Aisyiah.
Night	<ul style="list-style-type: none"> ▪ Arrival of relief goods from BNPB to Pariaman. ▪ SAR activity ended. Total death toll: 46 ▪ Initial information from Kecamatan about damages started to flow.
DAY 3 (2 October)	
morning	<ul style="list-style-type: none"> ▪ Preparation for the President’s inspection. ▪ Continue the Coordination of medical treatment for casualties continued.
Noon	<ul style="list-style-type: none"> ▪ President’s inspection to Pariaman.
Night	<ul style="list-style-type: none"> ▪ Distribution of relief goods to Kecamatan & other villages. ▪ Arrival of International SAR teams but were requested to proceed to Kab. Padang Pariaman
DAY 4 (3 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities. ▪ Electricity & other line life started to function in some areas.
DAY 5 (4 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities
DAY 6 (5 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities
DAY 7 (6 October)	
Day/Night	<ul style="list-style-type: none"> ▪ Continuation of previous day activities,
WEEK 2 – 4 (7 October – 31 October)	
Day/Night	<ul style="list-style-type: none"> ▪ After the 2nd week → Andalas University started the verification of damage & recording of data. The data is still being verified by dinas PU for completion by the second week of December 2009. ▪ Domestic and international NGOs actively supported/assisted the local

	<p>government for early recovery activities.</p> <ul style="list-style-type: none"> Emergency Respond activities officially ended on 31 October.
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Figure 2.2.14 and Figure 2.2.15 illustrate the layout of Kota Pariaman Emergency Response Headquarters.

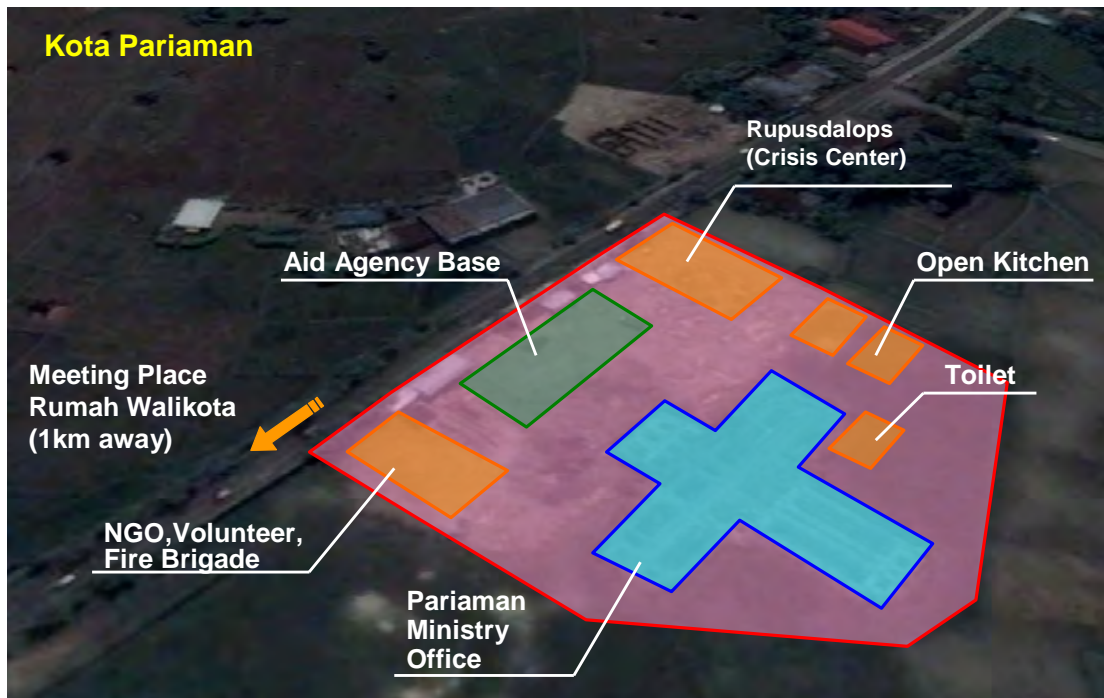


Figure 2.2.14 Perspective View of West Sumatra Emergency Response Headquarter

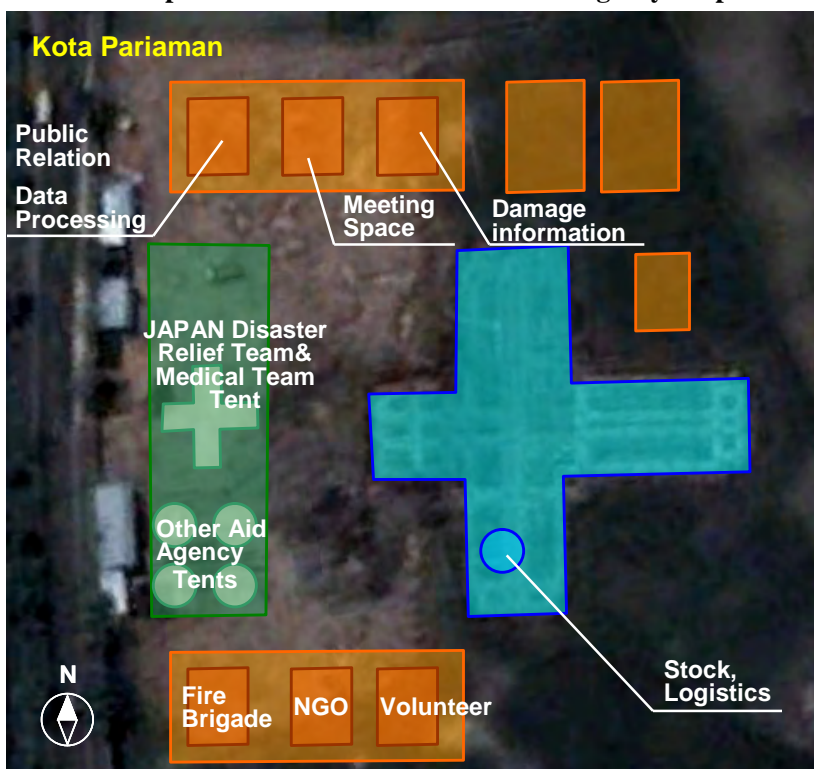


Figure 2.2.15 Layout of West Sumatra Emergency Response Headquarter (Main Part)

2.2.3 Emergency Response Operations by International Agencies

Supports from the International agencies from emergency response to rehabilitation and reconstruction were vigorous. This section describes the emergency response activities conducted by International Agencies.

1) Assistance from the Government of Japan through JICA

Upon the receipt of GOI's request on October 1, 2009 for emergency assistance relative to the calamity generated by the earthquake, GOJ through JICA Indonesia responded immediately by deploying personnel to Padang. Simultaneous with the foregoing operations, GOJ prepared the Japan Disaster Relief Team comprising of Rescue Missions and Medical Workforce with JICA as the Implementing Agency. These Teams together with the Swiss SAR Team among other nations were the first to be deployed in disaster areas.

(1) Deployment of 65 Rescue team personnel

Head: International emergency assistance officer, Ministry of Foreign Affairs

Deputy Head: International disaster relief office, Director, JICA, and 3 personnel.

The member configuration:

- Police Personnel: 20
- Fire and Disaster Management Affairs personnel: 16
- Coast Guard Personnel: 12
- Medical team Personnel: 5
- Administrator and Public relations Personnel (JICA): 7
- Rescue dogs: 3

(2) Deployment of 23 Medical team Personnel

Head: Area Coordinator, Ministry of Foreign Affairs

Deputy Head: Council officer Procurement department, JICA, and 1 person

The member configuration:

- 3 Doctors
- 8 Nurses
- 1 Pharmacist: 1person
- 4 Technicians
- 4 Administrators (JICA)

(3) Provision of Relief Goods costing ¥2,500 million (including transport costs)

Blankets: 1,500 units

Sleeping pad: 900 units

Tents: 100units

Generator: 80 units

Cord Reel: 80 units

Water purifier: 35 units

Table 2.2.13 Emergency Response Operations of JICA

DAY	Rescue team	Medical team
DAY 1 (30 September)		
	<ul style="list-style-type: none"> ▪ Information collection by JICA Indonesia 	
DAY 2 (1 October)		
Morning	<ul style="list-style-type: none"> ▪ Acceptance of requests from GOI by GOJ 	
12:10	<ul style="list-style-type: none"> ▪ 3 JICA inspection team) left Japan to Indonesia 	
Noon/Night	<ul style="list-style-type: none"> ▪ Arrival of JICA Indonesia staffs to Padang to pursue preparatory works for the arrival of the Rescue and Medical team ▪ 61 Rescue staffs & 14 Medical staffs left Japan at 9:05 pm 	
DAY 3 (2 October)		
Morning	<ul style="list-style-type: none"> ▪ Arrival of Rescue team and Medical team to Jakarta at 3:05. ▪ Arrival in Padang at 9:40 am. ▪ Obtaining of space in front of the Governor's house in Kota Padang, West Sumatra as base of operations. 	
		<ul style="list-style-type: none"> ▪ Conducted survey for medical needs in the city and suburbs.
Noon		<ul style="list-style-type: none"> ▪ Second group of 9 medical staffs left Japan.
Night	<ul style="list-style-type: none"> ▪ Rescue activity with trained dogs started at Ambachang Hotel. 	
DAY 4 (3 October)		
Day/Night	<ul style="list-style-type: none"> ▪ Search effort conducted for the Central Market. ▪ Search effort conducted for collapsed stores, schools, banks, and other buildings along Andalas street in Padang. ▪ Accepted the request to rescue 200 buried inhabitants. A small staff of Rescue Team was dispatched to Nagari Tandike Village in Kabupaten Padang Pariaman. 	
		<ul style="list-style-type: none"> ▪ Established base of operation in front of Kota Pariaman office. Set up tent as emergency treatment center. Clinical treatment of 43 casualties started. ▪ Arrival of the Second Team in Padang. Unison with the first Team.
DAY 5 (4 October)		
Day/Night	<ul style="list-style-type: none"> ▪ Rescue activities conducted at Rocky Hotel in Padang. ▪ Base of operation accepted a female victim suspected of skull fracture. She was treated and sent to a city hospital. ▪ Search conducted in 6 sites for the above but failed to find survivors. 	
		<ul style="list-style-type: none"> ▪ Set up Cross Tent as Field Clinic. Accomplished full-scale treatment of 140 casualties.
DAY 6 (5 October)		
Day/Night	<ul style="list-style-type: none"> ▪ Decision to end urban search and rescue activities in consultations with SATKORLAK and coordinating center of UN. 	
		<ul style="list-style-type: none"> ▪ Opening of a surgical field clinic. Surgery was conducted for 194 victims.
	<ul style="list-style-type: none"> ▪ Turnover ceremony for Emergency Relief goods conducted at the Governor's house. 	
DAY 7 (6 October)		
Day/Night	<ul style="list-style-type: none"> ▪ Completion of preparation for withdrawal. ▪ Departure from Kota Padang to Jakarta 	
		<ul style="list-style-type: none"> ▪ Conducted medical treatment to 280 casualties. ▪ Spread of chronic disease due to destruction of hospitals. Patients in addition to casualties of the disaster were admitted for treatment thereby significantly

		increasing the number of medical treatment.
WEEK 2 – 4 (7 October – 31 October)		
Week 2 – 4	<ul style="list-style-type: none"> ▪ Submitted activity report to the embassy and the deputy of BNPB on 7 Oct. ▪ Left Jakarta for Japan by JL726 on 7th Oct. Arrival at Narita airport in the morning of 8 Oct. Team members disbanded thereafter. 	<ul style="list-style-type: none"> ▪ Conducted daily medical care up to 12 Oct. Conducted treatment to 1,447casualties. ▪ Schedule of withdrawal confirmed. Hand over of medical supplies. Return trip to JPN on 11 Oct. ▪ Left Kota Pariaman on 13 Oct. Narita airport arrival: Early morning of 14 Oct. Team members disbanded thereafter.

Source: JICA, 2009

2) International Agencies

Numerous international agencies were represented through the UN organization. International NGOs¹⁵ also deployed personnel and emergency relief goods to disaster stricken areas in West Sumatra Province. Table 2.2.14 hereunder describes the chronology of emergency response operations conducted by donor International Agencies.

Table 2.2.14 Emergency Response Operations of International Agencies

DAY 1 (30 September)		
<i>USGS: Earthquake Warning</i>		
<i>GDACS¹⁶ sent disaster information through e-mail within 30 minutes after disaster occurred.</i>		
Night	<ul style="list-style-type: none"> • All international agencies were on stand by because there was no clear information about the consequences brought about by the earthquake. • There was no indication whether GOI would allow international emergency response assistance. • UN and other international agencies based in Indonesia decided to deploy initial rapid response team the following day. 	
DAY 2 (1 October)		
Morning	WHO, UNDP, UNICEF, etc.	UN Joint Mission (UNDAC) left for Padang
Noon	UNDAC	Arrival in Padang.
	AusAID	Arrival of 4 staffs Rapid Respond Team d in Padang.
	GOI	GOI requested for International USAR assistance.
Night	UNOCHA	Setting of up of information/coordination desk at PadangAirport
		UN OCHA set up coordination desk in West Sumatra POSKO
		1st UN/NGO/Donor meeting
	AusAID	Arrival of USAR (Urban Search and Rescue Team) in Padang in the evening.
Others	Arrival of a number of International USAR teams including those from Japan in Padang.	

¹⁵ ACT, ADRA, Mercy Corps, Oxfam, World Vision

¹⁶ The Global Disaster Alert and Coordination System with Joint Initiative of the United Nations and the European Commission

DAY 3 (2 October)		
Day/Night	AusAID	Arrival of Australian Defense Force (ADF). USAR operation started.
	Others	Arrival of the first batch of NFI (non Food items) in Padang. PMI (Indonesian Red Cross) conducted the distribution.
Massive International USAR operation started in Padang City.		
DAY 4 (3 October)		
Day/Night	Arrival of International NGOs in Kabupaten Padang Pariaman.	
DAY 5 (4 October)		
Day/Night	Continuation of arrivals.	
DAY 6 (5 October)		
Day/Night	BNPB terminated USAR operations at 4pm. International teams shifted to Humanitarian Relief operations.	
DAY 7 (6 October)		
Day/Night	AusAID	37 USAR members left for Padang and started operations.
	Others	Other USAR teams left for Padang
WEEK 2-4 (7 October – 31 October)		
Day/Night	AusAID	ADF stayed in Padang up to the 3 rd week of October. Medical Team stationed in Padang Pariaman (Sungai Geringging) work round the clock. Water Engineer was deployed to Padang. Construction Engineers worked up to 5 th November. Closure of AusAID office in Padang.
	UNDP	Assisted in clearing of debris caused by landslides to open roadways.
	WB	Financial support to Bappeda for the formulation of DALA
	Others	Assisted in the distribution of relief goods to remote & isolated areas by helicopters
	US Navy	US Navy medical team ended operation

Source: 1) UNDP, 2) AusAID, 3) WB: West Sumatra DALA (Damage & Loss Assessment) , 4) OCHA situation Report No. 1 – 20

Note: Total 196 international organizations had participated in WS earthquake (UNOCHA Situation Report No. 11), which include: 23 SAR Teams; 8 Military; 9 Red Cross/ Red Crescent; 12 donors; and 10 UN Agencies.

The following information was also gathered for specific assistance relative to the emergency response operations.

Scope of International contribution:

- (1) **Participation of 21 International SAR team** from 1st – 7th October 2009
- (2) **Participation of UNDAC¹⁷** from October 2 to 15, in assisting the government prepared the organization of the coordination structure to facilitate assessment processing and managing information.
- (3) **Convening of 10 CLUSTERS** from October 4¹⁸
- (4) **Financial Assistance:** HRP, CERF& ERF and FTS
 - **Participation of HRP (Humanitarian Response Plan)** in providing basic needs of victims for the first 90 days or until 9th October @ USD 38 millions for 74 projects. To be implemented by: 11 UN agencies, IOM & 18 international NGOs.

¹⁷ United Nations Disaster Assessment and Coordination

¹⁸ Agriculture (head: FAO); Early Recovery (UNDP); Food & Nutrition (WFP); Telecommunication (WFP); Logistic (WFP); Education (Save the Children & UNICEF); Shelter (IFRC); Water & Sanitation – WASH (UNICEF); Protection (UNICEF/Oxfam/ UNFPA); and Health (WHO).

- **Assistance from CERF** (Central Emergency Response Fund) & **ERF** (Emergency Relief Fund).
- **Assistance from FTS (Financial Tracking System)** → in tracing assistance from donors to recipient¹⁹, website <http://ocha.unog.ch/fts2>

**Table 2.2.15 Estimated International Donor Assistance, traced through FTS
 (Including HRP & others as of 25th November 2009)**

Country	Amount (US\$)
USA	11,478,838
Central Emergency Response Fund (CERF)	6,121,482
Germany	4,777,397
European Commission (ECHO)	4,338,270
China	4,000,000
England	3,602,273
Australia	3,130,288
Denmark	2,420,856
Canada	2,297,795
France	2,223,838
Sweden	1,988,658
Private Sector (individual & organizations)	1,987,958
...	... and so on
Japan	277,469
....	... and so on
Total	US\$ 57,464,615

¹⁹ Including UN, NGO, Red Cross & Red Crescent, and bilateral assistance

2.3 Effective Utilization of Regional Disaster Management Plan and Issues of Concern Formulated by Joint Cooperation of GOI and JICA

From 2007 to 2009, JICA implemented “the Study on Natural Disaster Management in Indonesia” in support to the formulation of RDMP in Kabupaten Padang Pariaman, and Kota Pariaman as the pilot study areas. RDMP comprise of 4 components: 1) General, 2) Pre-disaster plan, 3) Emergency response plan, and 4) Post-disaster plan. All essential activities and responsible agencies were indicated thereat. The emergency response plan is not a manual and therefore do not specify appropriate step by step procedures to follow when disaster occurs. It is however essential to evaluate the components of the plan as actually implemented in the field, not as an emergency response operations like those which occurred for the 2009 West Sumatra Earthquake. Should inconsistencies be discovered or if there are certain points that need to be improved, revision of the RDMP for enhancement should be made accordingly. This section describes the effective use of the RDMP as formulated by joint cooperation of GOI and JICA. Comments and observations of the RDMP are welcomed for possible improvement.

2.3.1 Comparison of Regional Disaster Management Plan (RDMP) with Actual Emergency Response Operations

The Draft Study Version, of the National Disaster Management Plan and Regional Disaster Management Plan were formulated in cooperation/consultation with relevant Government officials. The NDMP document for BNPB is being finalized and for this reason comparison of the components of the RDMP and NDMP is not possible. Moreover, the NDMP does not contain detail activities for emergency response operations, so that it is not possible to verify the reliability of operations relative to the Draft Disaster Management Plan.

As mentioned earlier, the RDMP is not a manual to be followed. Comparing the plan with actual emergency response operations is therefore not advisable. However, comparison can made with the actual emergency response operations for the 2009 West Sumatra Earthquake.

Figure 2.3.1 shows the components of the RDMP Emergency Response Plan for Kabupaten Padang Pariaman. As indicated, the plan necessitate for implantation of activities in emergency response operation by Kabupaten Padang Pariaman Officials. These include: 1) The establishment of Emergency Response Headquarter, 2) Gathering of Information about Damages/Destructions and Dissemination of Information, 3) Search and Rescue Missions, 4) Evacuation, 5) Food, Water, and Daily Commodities Distribution, 6) Health Treatment, among other activities to be undertaken by responsible agencies.

To facilitate the comparison of the actual emergency response operations with the planed RDMP for Kabupaten Padang Pariaman as an example, Table 2.3.1 indicates the actual activities conducted. As shown the Plan actually indicated certain difficult tasks considering current

capacity of Kabupaten officials. Some problems were encountered and need to be modified and updated accordingly based on the experience gained from the 2009 West Sumatra Earthquake Disaster.

Section 3 Emergency Response	Disaster Emergency Response Plan	Chapter 1	Emergency Response System
		Chapter 2	Disaster Information Gathering and Dissemination Plan
		Chapter 3	Request for Supports
		Chapter 4	Sediment Disaster Measures
		Chapter 5	Tsunami Disaster Measures
		Chapter 6	Rescue, First Aid, Medical Treatment Measures
		Chapter 7	Fire Fighting Measures caused by Earthquake
		Chapter 8	Safety Control/Transportation Measures
		Chapter 9	Debris Removal Measures
		Chapter 10	Emergency Transportation Measures
		Chapter 11	Disaster Response Activities by Residents & Private Enterprises
		Chapter 12	Evacuation Measures
		Chapter 13	Panic Prevention Measures
		Chapter 14	Rescue/Aid Measures
		Chapter 15	Search for Missing Victim and Casualty Treatment
		Chapter 16	Cleaning, Hygiene, and Epidemic Prevention Measures
		Chapter 17	School Disaster Management Measures
		Chapter 18	Residence and Building Management
		Chapter 19	Emergency Measures for Lifeline
		Chapter 20	Hazardous Materials Measures
		Chapter 21	Acceptance Plan of Foreign Assistance

Figure 2.3.1 Table of Contents of Emergency Response Plan in RDMP (Kabupaten Padang Pariaman)

Table 2.3.1 Contents of Emergency Response Plan in RDMP and Actual Emergency Response Operations

Number	Title	Responsible Agency	Actual Emergency Response Operations
Chap. 1	Emergency Response System		The earthquake occurred after working hours. As a result, mobilization was delayed. The first official meeting was held 3 hours later. Rupsdalops were established on 2 October at an open space in front of Bupati Office. The plan was fairly implemented.
1.1.	Initial Response System (IRS)	Bupati Office	
1.2.	Rupsdalops PBP (Emergency Response Headquarters) and SATLAK	Bupati Office	
1.3.	Rupsdalops PBP Staff Mobilization	Regional Secretary	
1.4.	Staff Mobilization for Tsunami Warnings	Transportation Agency	
Chap. 2	Disaster Information Gathering And Dissemination Plan		Communication facilities were decommissioned for 4 days due to the catastrophe. Disaster Information started to trickle to the Province from 2 October. Damage Information Format was based on the earthquake that occurred in 2007, for report twice daily to the affected Province. For 4 days, Flexi telephone facilities were the only mode of information dissemination of damages to the Province. 4 days thereafter information were transmitted by fax. Dissemination of information was limited and did not include information as to when lifeline facilities are expected to recover, and as to when distribution of relief goods will be conducted.
2.1	Communication Tools	Transportation Agency, Information & Communication	
2.2	Establishing Disaster Communication Operation System	Transportation Agency, Information & Communication	
2.3	Collection of Disaster Information	Information & Communication	
2.4	Publication of Disaster Information	Information & Communication	
Chap. 3	Request For Supports		Bupati requested support to the Provincial Government. The surrounding Provinces and Kota/Kabupaten also sent relief goods directly to Kabupaten Padang Pariaman which was distributed by Kota Pariaman.
3.1.	National and Provincial Levels	Social Agency	
3.2.	Peripheral Kabupatens	Social Agency	
3.3.	Disaster Management Related Organizations	National Unit Agency	

3.4.	Military, etc.	Commander of District Military	
3.5.	Volunteers	National Unit Agency	
Chap. 4	Measures Against Landslides/Erosions		Numerous major landslides occurred coupled with death tolls. To prevent the occurrence of secondary disaster, it is essential to restrict access to landslide areas due to the prevalence of large quantity of debris. Moreover, appropriate actions could not be taken due to lack or shortage of heavy equipment.
4.1.	Warning, Evacuation, and Guidance Measures	National Unit Agency	
4.2.	Preventive Measures against Secondary Disaster	Public Works Agency	
4.3.	Publication and Dissemination of Information to Communities	Information & Communication	
Chap. 5	Measures against the occurrence of Tsunami Disaster		Tsunami did not occur.
5.1.	Receiving and Transmitting Weather Forecasts and Warnings	Transportation Agency, Army, Police, BMG	
5.2.	Measures after the Occurrence of Tsunami	SATLAK	
5.3.	Evacuation without Warning Alerts	Bupati and Wali Nagari	
Chap. 6	Rescue, First Aid, Medical Treatment Measures		The community attempted to rescue victims trapped under collapsed buildings. BASARNAS had difficulties in accessing the disaster areas, either from the north or the south because the roads were devastated. The Local SAR team was activated and supported with the arrival of the International SAR team on 2 October. Most Health Centers collapsed and no longer available for medical treatment of casualties. Arrival of domestic and international medical teams has to be awaited.
6.1.	Rescue, First Aid, Medical Treatment Measures	Health Agency	
6.2.	Medical Treatment System	Health Agency, Red Cross	
6.3.	Procurement of Medicines and Medical Equipments	Health Agency	
6.4.	Psychiatric Health Care	Health Agency, Religion Board	
Chap. 7	Fire Fighting Measures Caused By Earthquake		Hazard due to fire did not occur.
7.1.	Fire Fighting Organization	Fire Fighting Office	
7.2.	Emergency Call and Mobilization	Transportation Agency	
7.3.	Information Collection System	Information & Communication	
7.4.	Fire Fighting Activity	Fire Fighting Office	
7.5.	Initial Fire Fighting Activity	Fire Fighting Office	
Chap. 8	Safety Control/ Transportation Measures		Immediately after the occurrence of the earthquake, lowland inhabitants panic from the occurrence of tsunami and evacuated to higher grounds. This caused chaos and traffic jams. A few days thereafter, except for road affected by landslides or erosions, r traffic subsided and there is no need for a control. Safety control was not needed in most places. Vehicle owners/operators had to rush acquiring fuel stored in tanks due to lack of petrol. Petrol owners sold the commodity at 6 times the normal price.
8.1.	Safety Control Measures by Police	Police	
8.2.	Sea Safety Control and Security Measures	KAMLA and Air & Water Police	
8.3.	Road Transport Management	Transportation Agency	
Chap. 9	Debris Removal Measures		Removal of debris is one among the most serious problems encountered due to the collapsed of numerous buildings/houses.
9.1.	Target of Removal	Public Works Agency	
9.2.	Team of Removal	Public Works Agency	
9.3.	Method of Removal	Cooperation	
9.4.	Temporary Storage Sites for Debris	Environment Office	
Chap. 10	Emergency Transportation Measures		Fortunately, damage to public infrastructures including roads and bridges were minimal. Most of the road network linking Kabupaten/Kota was already repaired.
10.1.	Securing Transport Equipments	Transportation Agency	
10.2.	Securing Transportation Network	Public Works Agency	
Chap. 11	Disaster Response Activities By Community And Private Enterprises		Components of the RDMP were fairly implemented.
11.1.	Disaster Response Activities by Citizens	Bupati	
11.2.	Disaster Response Activities by Community Groups	Bupati	
11.3.	Disaster Response Activities by Private Enterprises	Private Enterprises	

Chap.12	Evacuation Measures		By and large evacuation in the region was located in large open spaces fronting each house. It is noted in this connection that certain evacuation centers were conceived based on the RDMP. As such, evacuation was also made to designated evacuation areas.
12.1.	Evacuation Plan	Bakesbang Linmas	
12.2.	Announcement of Evacuation Warnings	Bakesbang Linmas	
12.3.	Set up of Alert Area	Bakesbang Linmas	
12.4.	Advice for Evacuation and Transfer	Bakesbang Linmas	
12.5.	Set up of Temporary Evacuation Site and Its Management and Operation	Bakesbang Linmas	
Chap. 13	Panic Prevention Measures		Most inhabitants were scared of from the occurrence of Tsunami due to the unavailability of information. With proper information panic of inhabitants escaping to higher grounds could have been avoided.
13.1.	Panic Prevention due to Lack of Information	Regional Police	
13.2.	Transportation for Panic Prevention	Transportation Agency	
13.3.	Panic Prevention during Evacuation	Bupati	
13.4.	Panic Prevention at Public Facilities	Regional Police	
Chap. 14	Rescue/Aid Measures		For 10 days, there was confusion and shortage of relief goods including food, water, daily necessities. For a few days the populace suffered from stocking of necessities. 3 days after, however, relief goods started to arrive, and after 10 days, dissemination of relief goods normalized. Relief goods were delivered to: Rupsdalops Province, 2 Airports, and 1 Seaport. For the first 2 days delivery was not equally made due to damages. After the determination of the causes, delivery to Kabupaten/Kota was smoothly conducted.
14.1.	Food Provision	Social Agency, Red Cross	
14.2.	Water Provision	Regional Water Company	
14.3.	Daily Commodity Provision	Social Agency, Transportation Agency	
14.4.	Acceptance of Goods from Outside Disaster Affected Area	Social Agency	
14.5.	Set up of Temporary Toilet	Health Agency, Public Works Agency	
Chap. 15	Searching For Missing Victim And Casualties Treatment		The activities of International SAR were coordinated by UNOCHA. For the first few days, however, overlapping of activities was encountered due to insufficient coordination. Most of victims were killed instantly. Efforts by the international SAR Team to rescue the casualties alive were futile.
15.1.	Searching for Missing Victim and Casualties Treatment	SAR, Health Agency, Bakesbang Linmas	
15.2.	Autopsy and Transport of Casualties	Health Agency	
15.3.	Identification of Casualties	Health Agency	
15.4.	Casualties Treatment	Health Agency	
15.5.	Burial or Cremation of Casualties	Public Works Agency and Public Welfare Agency	
15.6.	Provision of Information to Community	Information & Communication	
Chap. 16	Cleaning, Hygiene, And Epidemic Prevention Measures		No epidemic problems occurred.
16.1.	Health Care and Hygiene Measures	Health Agency	
16.2.	Solid Waste Management	Public Works Agency	
16.3.	Human Waste Management	Environment Agency	
16.4.	Epidemic Preventive Measures	Health Agency	
Chap. 17	School Disaster Management Measures		Many of school buildings collapsed. Fortunately, the earthquake occurred after school hours. To restart schooling, numerous NGOs assisted in building temporary school facilities. Numerous international donors and NGOs planed to construct new school buildings in place of the collapsed buildings.
17.1.	Management of School Facilities	Education Agency	
17.2.	Measures for Students and Pupils	Education Agency	
17.3.	Procurement and Provision of School Supplies, etc.	Education Agency	
17.4.	Management of Education Facilities	Education Agency	
Chap. 18	Residence And Building Management		Kabupaten Officials conducted the initial survey for damage buildings. Due to the absence of an agreed format, the assessment of damages varies from one staff/group to the other. Moreover, the survey plan does not contain methodology details needed to update the substance/essence of the survey.
18.1	Investigation of Damaged Buildings	Public Works Agency	
18.2	Survey of Damaged Residential Land	Public Works Agency	
18.3	Construction of Temporary Housing and Emergency Restoration of Damaged Buildings	Public Works Agency, Red Cross	
Chap. 19	Emergency Measures For Lifeline		Electrical supply recovered in 10 days in most areas, while telecommunication facilities were the first among all lifelines to recover in 4-5 days period. The use of mobile phones by the populace is the reason for the early recovery of communication facilities. Most places use water tanks and as such did not cause serious water shortage. However, damage water distribution supply pipes still need to
19.1	Information of Lifeline Recovery	Bakesbang Linmas	
19.2	Water Supply Facility	Public Works Agency and Regional Water Company	
19.3	Electric Supply Facility	National Electric Company	
19.4	Telecommunication Facility	Telkom	

			be fixed in most places.
Chap. 20	Hazardous Material Management		No specific actions were taken for the management of hazardous materials.
20.1	Hazardous Materials Storage Facility	Police	
20.2	Vehicles for Transporting Hazardous Materials	Police	
Chap. 21	Acceptance Plan Of Foreign Assistance		Kabupaten officials with the support of international agencies and NGOs attempted to record and coordinate all the activities. Moreover, dissemination of information was pursued through their own homepage.
21.1	Information Sharing with National and Provincial Organizations	Bakesbang Linmas	
21.2	Acceptance of Foreign Assistance	Bakesbang Linmas	

2.3.2 Issues of Concern for the Emergency Response

1) Issues of Concern for the Survey

While the earthquake was relatively strong, no major Tsunami was not observed although some researchers mentioned the occurrence of nominal Tsunami but did not incur major damages to public infrastructures including airports, roads and bridges. This situation helped speed up the emergency response operations in accessing destructed areas.

Based on the foregoing observations, the following issues of concern were considered:

- Numerous RC buildings and residential houses have collapsed causing the majority of death tolls.
- Breakdown of telecommunication facilities and stoppage of Electrical supply slowed down the emergency response operation activities.
- The occurrence of the earthquake at night time caused difficulties in pursuing initial emergency responses.
- The EOC building was slightly damaged but could not be used as base for emergency response due to insufficient working space and breaking down of the communication system including the TEWS.
- Satellite phone was not provided due to the high rate and cost of maintenance. At the time the disaster occurred, the validity of the prepaid voucher has already expired and subscription of the other one was still under renewal.
- The due date of certain food items included in the relief supplies of some international NGO has already expired.
- InaTEWS warning system was not functioning at the time the disaster occurred. Only 1 out of the 6 was functioning.
- Proper coordination was not undertaken on how to undertake the surveys for damage building facilities. For this a resurvey is needed to verify the surveys conducted by Andalas University. The Format used in obtaining information about damages for the Province, Kabupaten/Kota, and Kecamatan was not standardized making the results difficult to summarize.
- There was insufficiency of heavy vehicles/trucks for use during the 1st week of emergency response period.

- Petrol was purchased by certain individuals for stocking purposes. At the height of the crisis, the petrol was resold at exorbitantly high prices causing the shortage of petrol in disaster affected areas.
- Assistancess from International agencies and NGOs were managed by UNOCHA, in order to avoid confusion accepting massive assistances; also they were obliged to register in Province, and Kabupaten/Kota. However, some of NGOs had not registered or on the leave they did not informed what they had assisted by informing results of their activities. This situation made difficult to summarize progress and result of assistances. In Kabupaten Padang Pariaman, they opened HP for international assistances to register through webpage, however, not all international agencies and NGOs registered in this webpage, the method was not succeeded.

In most cases, the breakdown of telecommunication facilities and electrical supply system caused the delay of emergency response operations. This also made the coordination among relevant agencies difficult and strenuous.

2) Issues of Concern for Emergency Response Operations based on the Evaluation Meeting coordinated by BNPB from 22 December – 24 December 2009

For the evaluation of the emergency response operations undertaken for the calamity generated by the earthquake, BNPB with the support of UNOCHA held conferences from 22 to 24 December, 2009 or 3 months after the occurrence of disaster. Listed hereunder is the result of issues of concern arising from the meeting for possible improvement.

(1) Problem raised by BNPB

- BPBD which is not yet officially established has to obtain directives from SATKORLAK under the command system. Under the d system BNPB's function is for coordination purposes only.
- The Rapid Response Team (TRC) did not properly/efficiently operate, due to erratic information.
- The organization of management for relief aid including logistics & equipment needs to be improved, particularly for BIM²⁰, Tabin airport and Teluk Bayur seaport.
- Local government officials were unable to provide pick up assistances of volunteers from BIM.
- POSKO mobilization should be speedier to improve the control of functionality.

²⁰ Minangkabau International airport

- Administration difficulties in obtaining the logistics & equipments needed for the handling and transporting of relief goods coming from both air & sea in varying forms, shapes, sizes and packaging such as bulk cargo, unitized cargo and loose cargo. Cargo arrival through BIM, Tabing Airport and Teluk Bayur Seaport is frequent necessitating round the clock operations.
- Insufficiency of staffs of BNPB/BPDB to handle the entry points of relief goods.
- Lack of administration support for equipments and devices such as computers, printers, fax machines, photocopy machines, telephone facilities, among others.
- Because BPBD is not yet officially established, distribution of relief supplies to affected communities was not properly and efficiently executed.

(2) Issues of concern raised by UNOCHA

- Telecommunication problems in the early days of the emergency response operations.
- No clear information on Needs → Rapid assessment was a weak point that needs improvement.
- Not all concerned parties participated in cluster coordination meetings.
- Culture and Languages.

Problems for the mobilization phase:

- Lack of precise & reliable data: data on damages from remote villages; mode of distribution of relief goods, (who will do, what to do, etc.)
- Focal point of what to do: who is in charge?
- Access: transportation to isolated areas.
- One unified framework for distribution of relief aids.

(3) Problems raised by the Local NGOs

- NGOs had difficulties coordinating with both SATLAK & SATKORLAK of POSKO especially for the lack of support to access responsible offices for each of the emergency response activities, i.e., who is the responsible officer for SAR, logistics, media, data, secretariat, etc.

- Lack of coordination regarding the tasks distribution/responsibility among UNOCHA, BNPB and SATKORLAK for POSKO Province.
- Local NGOs were not involved in meetings organized by UNOCHA which caused disintegration of works thus subjecting the NGOs to operate on its own. This created operational/functional for the fair distribution of relief aids.
- Each relief aid distributor has varying SOP causing confusion to the local NGOs. This aired numerous complaints from both the community and the distributors.

Challenges:

- Lack of well trained human resources appropriate to the needs of both the community & relief aid distributors. Some volunteers created unexpected problems.
- Every international organization issued their own assessment form. These forms must be filled by the community to be eligible for relief aid. Relief aid in some cases, never reach its destinations despite the filling of numerous forms. This created problems for the volunteers who are at the frontline of the communities.
- In many cases, the relief aids were not suited to the needs of the casualties due to lack of relief goods and information.
- Lack of financial resources to manage the emergency response activities.
- Barrier between the NGOs & government official exist causing communications to pass through long channels thus creating poor coordination and in the worst scenario confusion.
- No clear definition about the position of the NGOs for disaster management, including their rights & obligations.

2.3.3 Impact of RDMP for the Actual Implementation of Emergency Response Operations

The 2009 West Sumatra Earthquake that occurred just off the coast of Kota Pariaman and Kabupaten Padang Pariaman is the location where the JICA pilot disaster study are being implemented “The Study on Natural Disaster Management in Indonesia” commenced in April 2007 for completion by March 2009. Four types of disaster studies were conceived for Kota Pariaman and Kabupaten Padang Pariaman. These comprise: 1) Earthquake, 2) Tsunami, 3) Flood, and 4) Landslides in selected target disaster areas. Based on these conditions, possible hazards were formulated and risk maps were prepared. Regional disaster management plans were then formulated based on the maps for which community based disaster risk management activities were conducted in selected communities from May to October 2008.

The RDMP is divided into 3 disaster management category, comprising: 1) Preparedness / Mitigation Measures, 2) Emergency Response Measures, and 3) Rehabilitation/Reconstruction Measures, with essential activities to be implemented by responsible institutions/groups.. Considering that Preparedness/Mitigation Measures will require certain duration of time, huge funding will be required although it is not possible to observe the visible effects immediately after the formulation of the plan. However, it is important to note that whether or not an emergency response operations are implemented as indicated in the plan, certain issues of concern have to be clarified for improvements of the preparedness scheme to cope with the possible occurrence of future disaster.

RDMP is a flexible plan to be revised and updated periodically as needed by utilizing lessons gained from past disasters. The proposed RDMP is the first version to be adjusted as needed according to local requirement and conditions. This section therefore briefly describes the effective utilization of the research for “The Study on Natural Disaster Management in Indonesia.”

1) Utilization Impact of the Results of the Development Study

The procedure for Emergency Response Operations are formulated in the form of PROTAP (Document indicating Emergency Response Procedures) for the Provinces, of Kabupaten/Kota. Pursuant to pertinent laws, emergency response operations in event of disaster will be implemented based on the PROTAP. The Emergency Response Plan for Regional Disaster Management for Kabupaten Padang Pariaman and Kota Pariaman were formulated based on the requirements of PROTAP for which the activities and responsibilities of each agency should be clarified. The proposed RDMP is deemed prepared in more detail than PROTAP. Based on interviews with Bupati of Kabupaten Padang Pariaman and SATLAK and the National Unity

Agency, which conducted emergency response operations, the following aspects were confirmed and incorporated into the JICA Study.

- Most of Emergency Response Operations were implemented through responsible agencies indicated in RDMP. In the case of RDMP each activity is allocated to a definite Agency.
⇒ In many cases, the absence of clear demarcation of activities cause confusion and duplication of operations among the stakeholders.
- Emergency Response Headquarters as Command Center was established as planned in the RDMP
⇒ In the plan, if a designated building is damaged, other locations are designated. However, if all designated locations are damaged or not suitable for use, establishment should be made at an open space fronting Kabupaten Office for Kabupaten Padang Pariaman and Kota Office for Kota Pariaman.
- Damage Information should be systematically gathered based on the following order: 1) Village ⇒ 2) Sub-District ⇒ 3) District/City ⇒ 4) Province ⇒ 5) BNPB
⇒ From the 3rd day, periodic reports to the Province should be made twice daily to help grasp the damage condition in the affected regions.
- Evacuation sites shall be designated in advance to be incorporated into the RDMP
⇒ For Kota Pariaman, evacuation sites were provided in advance which facilitated the accommodation of evacuees.
- Information about Damage, Utility Recovery, and Supply of Relief Goods Provision should be pursued through District ⇒ Sub-District ⇒ Village as planned in the RDMP.
⇒ Information dissemination to the citizenry should be conducted periodically. This role was taken by the community radio station for Kabupaten Padang Pariaman based on information gathered from Kabupaten officials.
- Comparing the emergency response operations before the formulation of the RDMP, promptness and effectiveness of activities of government officials were greatly improved.
⇒ Based on the information provided by Bupati Kabupaten Padang Pariaman in a Daily Press Meeting, Bupati brought with them a copy of the RDMP as reference material (eg. Setting up an alert area not to enter by citizens).
- By carrying out community education through community based disaster risk management activities prepared by many local and international donor countries including JICA, people will become aware of earthquake generated Tsunami and many escaped to higher grounds. This occurrence was experience from the Tsunami that occurred in Ache.

⇒ Tsunami Early Warning System did not function properly and reliable information was not available to the citizenry. As a result, the populace panicked and evacuated immediately to higher grounds. The abrupt evacuation generated chaos, traffic jams and eventually unwarranted accidents/mishaps.

Although not directly related with the emergency response operations for the 2009 West Sumatra Earthquake, the following were efforts made by Kabupaten Padang Pariaman.

- Based on Bupati's decision, after the completion of the JICA Study, the funds for disaster management will be increased by 4 times.
- Broadening of community based disaster risk management activities will be implemented with JICA assistance.

Fundamentally, the formulation of RDMP is expected to mitigate the (Disaster Reduction) degree of damages through preparedness and implementing of mitigating measures before the occurrence of disaster. However, the disaster time was shortened after the plan was formulated because Kabupaten Padang Pariaman government was unable to implement specific mitigation measures against damages. The vulnerability of buildings against seismic forces was pointed out, and in order not to repeat the same catastrophe, at least the "Built Back Better" for reconstruction is being adopted. In order to pursue the "Built Back Better" policy for the reconstruction phase, design and construction of structures should be seismic resistant and this could only be undertaken with strong leadership of local government officials with the understanding of the community for the protection and safety of their family.

2.3.4 Recommendations for Future Improvement of Emergency Response Utilizing the Result of the JICA Study

As mentioned earlier, lessons from past disasters should be used to mitigate damages brought about by calamity and to enhance the emergency response operations for possible future disasters.

The earthquake that occurred on 30 September was relatively strong, and most researchers estimate the probable occurrence in the future of stronger seismic activity that would induce earthquake generated tsunami along the Sunda Trench Fault triggering catastrophic devastation. Therefore, in preparation to possible occurrence of calamity, crucial actions and efforts to minimize damages must be pursued as early as possible considering the lead time needed for preparations.

The improvement in emergency response operation however would not drastically reduce earthquake calamity based on lessons gained from past disasters. Most victims who were trapped under collapsed buildings died within 15 minutes as recorded and proven in the case of the Hanshin Awaji Earthquake which occurred in 1995. The importance of community empowerment against disaster was likewise proven as essential. It is noted in this connection that that most of the victims under collapsed buildings were rescued by inhabitants in the community who are familiar with their neighbors and the locality. It is also essential to understand that government officials are also probable disaster victims and that rescue operations in the event of calamity will require certain period of time. Therefore, disaster management is everybody's concern which necessitates the awareness of the whole community as well as the promotion of community empowerment.

As mentioned above, most disaster victims under collapsed buildings died within 15 minutes. Therefore in order to minimize human loss, it most essential is to improve quality of buildings against seismic forces. It is the fact that earthquake does not kill people. Only collapsed structures will kill people.

As for summarizing the emergency response operations for 2009 West Sumatra Earthquake, Table 2.3.2 also includes issues and necessary improvements for future.

Table 2.3.2 Summary of Emergency Response Operations, Issues and Necessary Improvements for Future

Implementer	Emergency Response Operations	Issues	Necessary Improvements
Central Government	<ul style="list-style-type: none"> ■ Disseminated Earthquake Warning and Information ■ Dispatched BNPB Quick Response Team ■ Opened and Operated Emergency Coordination Post at West Sumatra and Dispatched Personnel ■ Dispatched SAR Team ■ Dispatched Medical Treatment Team ■ Transported and Coordinated Relief Goods ■ Managed Logistic Coordination ■ Managed International Agencies and NGO Activities ■ Summarize and Disseminated Daily Report ■ Held Coordination Meetings with Province ■ Distributed Relief Funds to Province ■ Supported Policy Making of Rehabilitation and Reconstruction 	<ul style="list-style-type: none"> ■ Could not reach Tsunami Warning and Earthquake Information to Disaster Affected Area ■ Could not receive Damage Status from Disaster Affected Area due to Breakdown of telecommunication facilities and stoppage of Electrical supply in the day of earthquake. ■ The Rapid Response Team (TRC) did not properly/efficiently operate, due to erratic information. ■ Administration difficulties in obtaining the logistics & equipments needed for the handling and transporting of relief goods coming from both air & sea in varying forms, shapes, sizes and packaging such as bulk cargo, unitized cargo and loose cargo. ■ Lack of coordination regarding the tasks distribution/responsibility among UNOCHA, BNPB and SATKORLAK for POSKO Province. 	<ul style="list-style-type: none"> ■ Improvement of Communication Network including Warning System (<i>can be improved by implementing project proposed in Main Report "The Study on Disaster Information System"</i>) ■ Improvement of Response and Coordination capacity of BNPB by Planning and Training (<i>can be improved by implementing recommendation 1), 2), 3), 4), 5), and 6)</i>) ■ Preparation of MOU (Memorandum of Understandings) to receive supports in disaster with relevant associations (such as track society, contractors, supermarkets)
Provincial Government	<ul style="list-style-type: none"> ■ Disseminated Earthquake Information to Community ■ Investigated Field to Grasp Damage Status ■ Established and Operated Emergency Response Headquarter ■ Coordinated SAR Team ■ Coordinated Medical Treatment Team ■ Implemented Quick Damage Inspection of Large-scale Buildings ■ Transported and Coordinated Relief Goods ■ Managed Logistic Coordination ■ Managed local and International Agencies and NGO Activities ■ Summarize and Reported Human Casualty and Damage Status to BNPB ■ Held Coordination Meetings and Daily Press Release Meetings ■ Distributed Relief Funds to Kabupaten/Kota ■ Policy Making of Rehabilitation and Reconstruction 	<ul style="list-style-type: none"> ■ Could not receive Tsunami Warning and Earthquake Information through RANET ■ Could not send Damage Status due to Breakdown of telecommunication facilities and stoppage of Electrical supply slowed down the emergency response operation activities. ■ The occurrence of the earthquake at night time caused difficulties in pursuing initial emergency responses. ■ There was insufficiency of heavy vehicles/trucks for use during the 1st week of emergency response period. ■ BPBD which is not yet officially established has to obtain directives from SATKORLAK under the command system. ■ The organization of management for relief aid including logistics & equipment needs to be improved ■ Administration difficulties in obtaining the logistics & equipments needed for the handling and transporting of relief goods coming from both air & sea in varying forms, shapes, sizes and packaging such as bulk cargo, unitized cargo and loose cargo. ■ Lack of coordination regarding the tasks distribution/responsibility among UNOCHA, BNPB and SATKORLAK for POSKO Province. 	<ul style="list-style-type: none"> ■ Improvement of Communication Network including Warning System (<i>can be improved by implementing project proposed in Main Report "The Study on Disaster Information System"</i>) ■ Improvement of Response and Coordination capacity of Provincial BPBD/SATKORLAK by Planning and Training (<i>can be improved by implementing recommendation 1), 2), 3), 4), 5), and 6)</i>) ■ Improvement of resources such as unification of data formats (partly improved by implementing recommendation 6), secure safety of equipments including backup generators ■ Preparation of MOU (Memorandum of Understandings) to receive supports in disaster with relevant associations (such as track society, contractors, supermarkets)
Kabupaten/ Kota Government	<ul style="list-style-type: none"> ■ Disseminated Earthquake Information to Community ■ Investigated Field to Grasp Damage Status ■ Established and Operated Emergency Response Headquarter ■ Implemented SAR with Support of Local and International SAR Team ■ Implemented Medical Treatment with Support of Local and International Medical Team ■ Implemented Housing Damage Investigation ■ Received, Managed and Distributed Relief Goods ■ Managed and Recorded Activities by Local and International Agencies and NGO ■ Summarize and Reported Human Casualty and Damage Status to Province ■ Held Daily Meetings and Daily Press Release Meetings ■ Distributed Relief Funds to Community 	<ul style="list-style-type: none"> ■ Could not receive Tsunami Warning and Earthquake Information through RANET ■ Could not send Damage Status due to Breakdown of telecommunication facilities and stoppage of Electrical supply slowed down the emergency response operation activities. ■ The occurrence of the earthquake at night time caused difficulties in pursuing initial emergency responses. ■ Proper coordination was not undertaken on how to undertake the surveys for damage houses. ■ There was insufficiency of heavy vehicles/trucks for use during the 1st week of emergency response period. ■ There was insufficient increase of petrol price due to many people stocked individually to resale with high price. ■ Not all concerned parties participated in cluster coordination meetings. ■ Lack of well trained human resources appropriate to the needs of both the community & relief aid distributors. ■ Language problem communicating with international agencies and NGOs 	<ul style="list-style-type: none"> ■ Improvement of Communication Network to properly receive Warnings and communication with Province, also to disseminate information to communities (<i>can be improved by implementing project proposed in Main Report "The Study on Disaster Information System"</i>) ■ Improvement of Response capacity Kabupaten/Kota BPBD/SATLAK by Planning and Training (<i>can be improved by implementing recommendation 1), 2), 3), 4), 5), and 6)</i>) ■ Improvement of resources such as unification of data formats (partly improved by implementing recommendation 6), secure safety of equipments including backup generators ■ Preparation of MOU (Memorandum of Understandings) to receive supports in disaster with relevant associations (such as track society, contractors, supermarkets) ■ Empowerment of Community based disaster risk management
International Agencies and NGOs	<ul style="list-style-type: none"> ■ Dispatched SAR Team ■ Dispatched Medical Treatment Team ■ Donated, Transported, and Distributed Relief Goods ■ Provided Heavy Equipments and Trucks ■ Provided Temporary Shelters ■ Implemented Debris Removal ■ Supported preparation of Damage and Loss Assessment ■ Supported formulation of Rehabilitation and Reconstruction Action Plan ■ Supporting Rehabilitation and Reconstruction 	<ul style="list-style-type: none"> ■ Lack of coordination regarding the tasks distribution/responsibility among UNOCHA, BNPB and SATKORLAK for POSKO Province. ■ Difficulty in SAR activity by international SAR team due to lack of information and coordination ■ Barrier between the NGOs & government official exist causing communications to pass through long channels thus creating poor coordination and in the worst scenario confusion. ■ Not all concerned parties participated in cluster coordination meetings. ■ Local NGOs were not involved in meetings organized by UNOCHA which caused disintegration of works thus subjecting the NGOs to operate on its own. This created operational/functional for the fair distribution of relief aids. ■ No clear definition about the position of the NGOs for disaster management, including their rights & obligations. ■ Language problem communicating with local government 	<ul style="list-style-type: none"> ■ Improvement of coordination capacity by BNPB and Provincial BPBD/SATKORLAK how to cope with International and Local Agencies and NGOs ■ Improvement of coordination capacity lead by UNOCHA and cooperation among others ■ Improvement and Socialization of Cluster Coordination System

The following are few recommendations in the planning approach to improve future emergency response operations in Indonesia based on the result of JICA Study:

1) Unification of the Structure for Regional Disaster Management Plan (RDMP) with the National Disaster Management Plan (NDMP) under preparation by BNPB

BNPB is finalizing the National Disaster Management Plan (NDMP) based on the structure shown in Figure 2.3.2. Kabupaten Padang Pariaman and Kota Pariaman on the one hand formulated the Regional Disaster Management Plan categorized into 2 Parts as follows: 1) Measures against Earthquake and related Disaster including Tsunami, 2) Measures against Rain and Storm and related Disaster including Floods and Landslides. The NDMP, type of disasters is divided and compiled in separate volumes. Since the plans are closely interrelated, unifying the format in all levels is highly desirable. In the case of the West Sumatra Province Regional Disaster Management Plan, all types of disaster are compiled in one volume. However, in order to avoid unnecessary confusion in Disaster Management Planning, the plans need to be restructured. BNPB also needs to formulate the guidelines for the formulation of the Regional Disaster Management Plan in their structure. Moreover, the local government including the Provinces of Kabupaten/Kota should be alerted of the changes.

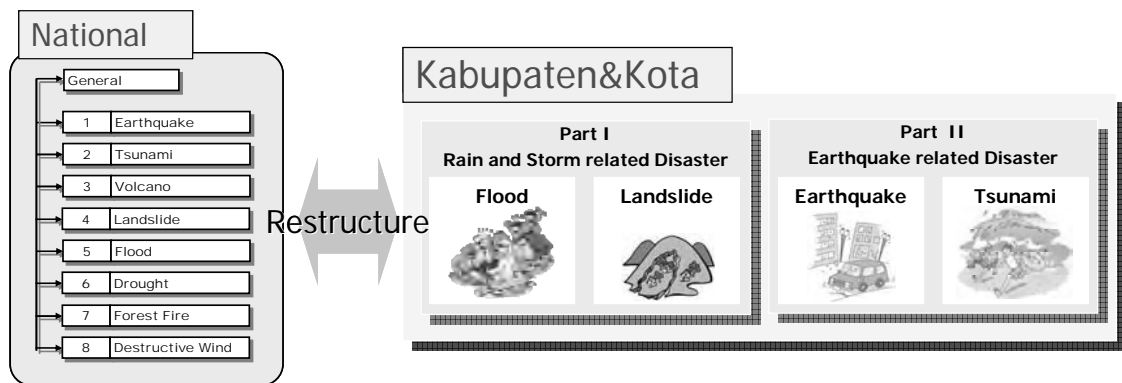


Figure 2.3.2 Structure of Disaster Management Plan



Figure 2.3.3 Relationship of Disaster Management Plan (Same Structure should be adopted in all Levels)

2) Updating and Modifying RDMP based on lessons from previous Earthquake Disasters

The 2009 West Sumatra Earthquake caused significant damages including the loss of many human lives. In order not to repeat the same tragedy in the future, lessons from previous

earthquake disaster should be considered for updating and modifying the components of the RDMP. Relevant officials should convene to discuss the individual component of the RDMP and determine/identify which parts of the Plan did not coincide with actual experience relative to earthquake generated calamities. Moreover, responsible agencies for each activity should check the components of the plan for possible oversight and should errors be found, that component of the plan should be revised, updated or modified accordingly.

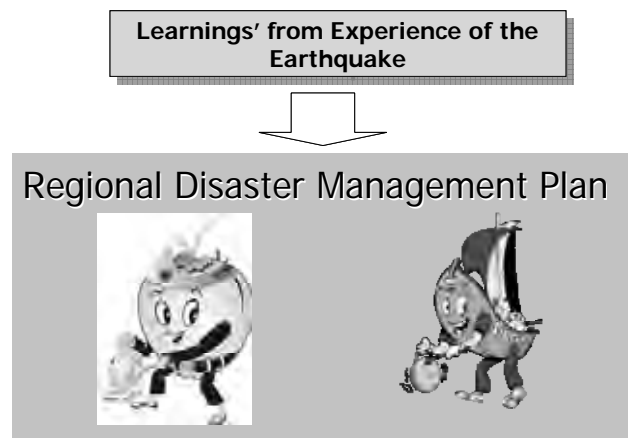


Figure 2.3.4 Input of lessons from previous Earthquake generated Disasters

3) Comparison of Actual Emergency Response Operation with the Emergency Response Planning of RDMP and PROTAP, and modify as necessary based on actual response operations

Jointly with the proposed update and modification of the RDMP, it is also essential to compare the components of the Emergency Response Plan of RDMP with that of PROTAP. While the Emergency Response Plan of RDMP is formulated based on PROTAP, the components are more detail. PROTAP is Decree for use in emergency response. For this it is necessary to modify the components of PROTAP in conjunction with RDMP.

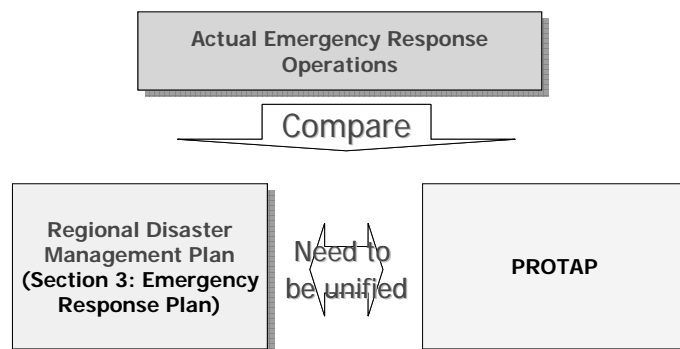


Figure 2.3.5 Comparison between RDMP and PROTAP

4) Modification of PROTAP to more user friendly Manual

The structure and components of PROTAP varies for each Province, Kabupaten/Kota. But the constituents of PROTAP are rather difficult to comprehend because it does not contain step by step procedures for emergency response operations. With this in consideration, o the formulation of a user friendly “Emergency Response Operations Manual” is highly recommended.

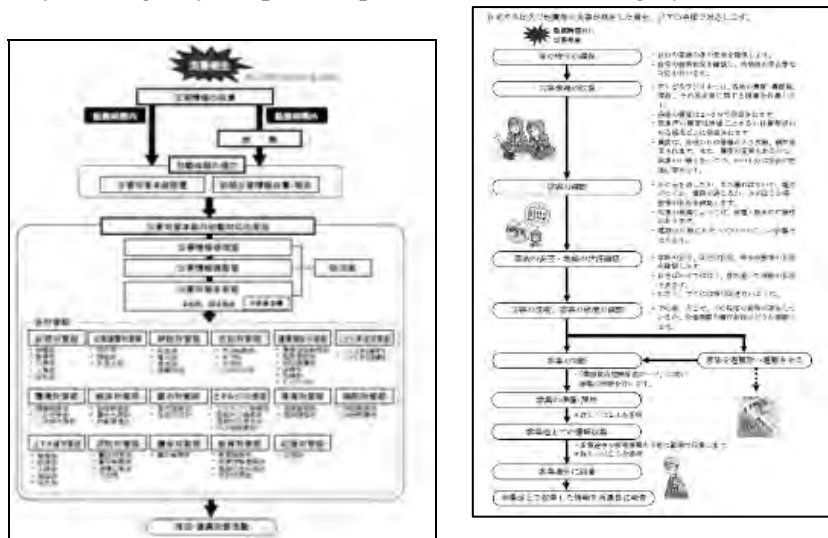


Figure 2.3.6 Organization and flow of response / Mobilization flow to office

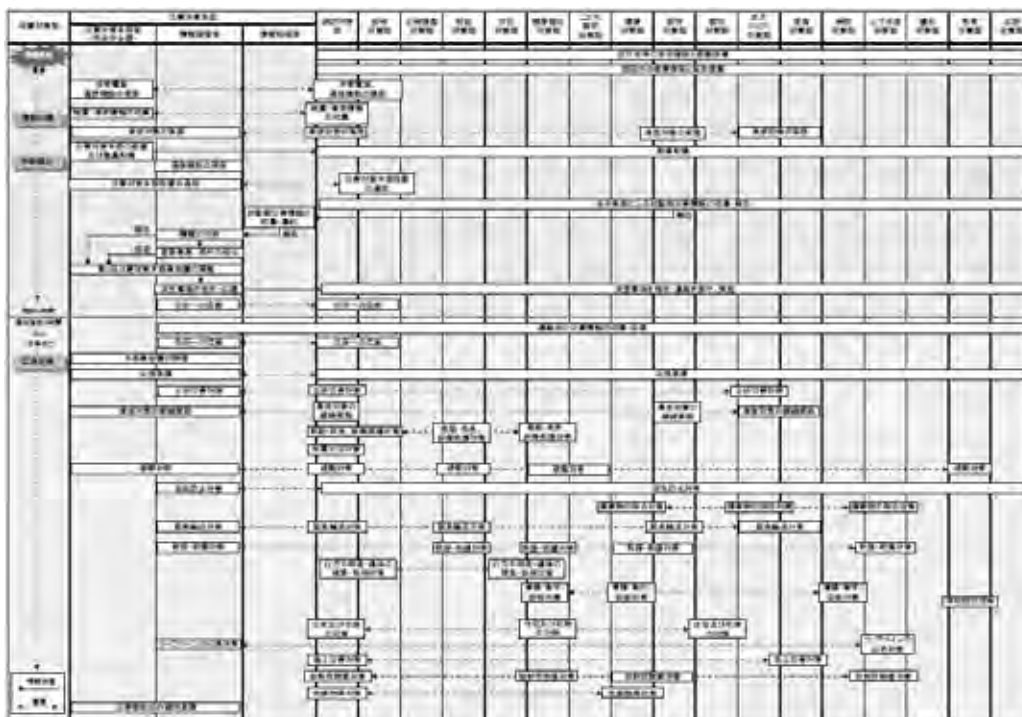


Figure 2.3.7 Flow of Emergency Response showing relationship between sections concerns

5) Implementation of Training Drills following the components of PROTAP to confirm the step by step procedures for the establishment of Initial Response System

Improving the capacity of concerned parties by training drills is indispensable for handling emergency response operations smoothly in the event that disaster suddenly occurs. In many places worldwide, response and evacuation drills are being practiced. Drills to confirm the flow of communications, gathering of disaster information, grasping the needs of relief goods, among others are still not put into practiced in most places in Indonesia. With PROTAP as the reference material, it is also essential to conduct Desk Top Exercises. Periodical conduct of this kind of drills will promote the process of understanding emergency response and helps to polish the capability of implementation when disaster actually occurs. West Sumatra in particular, has experienced several major disasters. It is therefore essential to conduct Desk Top Exercises to confirm the procedures for possible improvement in preparation to future disaster.



Desk Top Exercises to confirm/practice Emergency Response Operation Procedures

6) Unification of Data Format for obtaining Damage Information

West Sumatra SATKORLAK has prepared formats for obtaining Damage Information for the West Sumatra earthquake that occurred in 2007. Collection and reporting to upper government level from village to the National level were already systemized and implemented in accordance with directives. Nevertheless, the format used for each level varies as shown in Figure 2.3.8. In this connection, it is noted that the used varying formats would cause confusion, mis-inputs, and difficulties in summarizing collected information which would eventually lead to committing of possible errors. For a speedier process, the use of a standard/unified format is definitely needed in the future. The input/record of existing population and number of building facilities, houses and structures will facilitate the immediate identification/determination of the extent of damage on percentage basis from the overall image of the village, community, town or city prior to the occurrence of calamity. Without numerical records, it would be significantly difficult if not impossible to immediately grasp the extent of damage generated by the disaster.

Province

Jumlah Jarak (km)															Jumlah Penduduk															Jumlah Kerusakan															Fasilitas Lainnya															Keterangan (Tambahan Kerusakan)
Jarak					Penduduk					Kerusakan					Fasilitas Lainnya																																													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21	22	23	24	25	26	27	28	29	30																														

Kota

Jml Korban		JUMLAH KERUSAKAN															KET					
Meninggal	Luka2	FASUM				FAS. KESEHATAN				R. IBADAH			KANTOR			SEKOLAH			R. PENDUDUK			
ORANG		RR	RB	RS	JML	RR	RB	RS	JML	RR	RB	RS	JML	RR	RB	RS		JML	RR	RB	RS	JML

Kabupaten

JUMLAH KORBAN			JUMLAH KERUSAKAN																
MENINGGAL	LUKA BERAT	LUKA RINGAN	FASILITAS UMUM (JALAN, JEMBRAN, PASAR, IRIGASI)					RUMAH IBADAH			KANTOR			SEKOLAH			RUMAH PENDUDUK		
ORANG			RR	RS	RB	RR	RS	RB	RR	RS	RB	RR	RS	RB	RR	RS	RB		

Kecamatan

RUMAH	PERUSAHAAN	PERUSAHAAN	FASILITAS UMUM										KORBAN		LUKA 5/	KET
R. BETUL	R. SEDIKAT	R. LUNGAN	TK	SD	SMP	SLTA	PKK	MSI	MSL	IRIGASI	JALAN	LOMBOK	TG	TLH	PATANI	

Figure 2.3.8 Samples of Varying Formats Used for Recording of Damages/Disaster Information Reporting

2.4 Towards Build Back Better Reconstruction from the 2009 West Sumatra Earthquake

After the completion of the Emergency Response Phase on 31 October, 2009, the West Sumatra Provincial Government declared the transition of activities to Rehabilitation and Reconstruction Phase. Lessons from the havocs brought about by previous earthquakes mandate for a rehabilitation/reconstruction of structures based on the slogan, “Build Back Better”, “Action Plan for Rehabilitation and Reconstruction of Post-Earthquake Areas in West Sumatra Province 2009-2011” of November 2009.



Figure 2.4.1 “Action Plan for Rehabilitation and Reconstruction of Post-Earthquake Areas in West Sumatra Province 2009-2011”

The recovery plan should consider the following order of priority: (1) Recovery of Housing and Settlement Infrastructures; (2) Recovery of Public Infrastructures; (3) Social Recovery focused on basic public services as well as services for the less fortunate; (4) Recovery of facilities associated with the immediate restoration of local economic activities; and (5) Cross-sector Recovery; particularly for the rebuilding and repairing of government buildings for the immediate restoration of public services to the community.

Considering the extent of damages, a 2-fiscal year period should be considered for the rehabilitation and reconstruction works with preparatory activities to be implemented in the 4th quarter of fiscal year 2009. Rehabilitation/reconstruction works will continuously be undertaken in fiscal year 2010 for completion by fiscal year 2011. The general strategy for the post-earthquake recovery in West Sumatra province is based on the following premise: (1) Social, economic and cultural conditions of the community; (2) Environmental conservation and disaster

risk reduction; (3) Benefits and effectiveness of assistance for disaster victims generated by the calamity; and (4) Coverage to be undertaken in 12 districts/municipalities of West Sumatra severely affected by the wrath of the calamity.

For the 2009 West Sumatra Earthquake, the UN adopted the Cluster Coordination System to organize all supporters towards recovery from destructions brought about by the disaster. This system helps in avoiding duplication of assistances from various supporters. A Web page (eg. Shelter Coordination Group: <http://groups.google.com/group/sum09>) discussion forum was opened for this purpose.

Table 2.4.1 West Sumatra Cluster Leading Agency

CLUSTER	AGENCY
1) Agriculture	FAO
2) Early Recovery	UNDP
3) Food and Nutrition	WFP
4) Telecommunication	WFP
5) Logistic	WFP
6) Education	Save the Children, UNICEF
7) Health	WHO
8) Shelter	IFRC
9) Protection	UNICEF, Oxfam, UNFPA
10) WASH	UNICEF
11) Inter-Cluster Coordinator	OCHA

West Sumatra Province in coordination and with the assistance of BNPB, established a coordination mechanism for the rehabilitation and reconstruction of West Sumatra Province as illustrated in Figure 2.4.2. As shown, the mechanism is divided into 2 sectors as follows: 1) Housing and Infrastructure, and 2) Social, Economic and Health. As of January, 2010, the Housing sector has already started formulating the TOR for facilitators to support the reconstruction of damaged housing through the Provincial Government. The policy for the other sectors still remains to be established.

As shown in Figure 2.4.2, it is underlined that BNPB has established Technical Supporting Team (TPT) directly connected to Governor of West Sumatra Province as an advisory committee, consists of 6 advisors, 1) Chief Advisor, 2) Housing Advisor, 3) Infrastructure Advisor, 4) Cross Sector Advisor, 5) Social Advisor, and 6) Productive Economic Advisor. Their task is to make policy on Rehabilitation/Reconstruction, to give technical advice to Governor, and to give technical guidance to Implementers.

In order to track the status/progress of rehabilitation and reconstruction works, BNPB requested all supporters to record all activities associated with the rehabilitation and reconstruction projects to be implemented in West Sumatra.

The JICA Study Team attempted to gather the forgoing information but at that time the records were still under preparation.

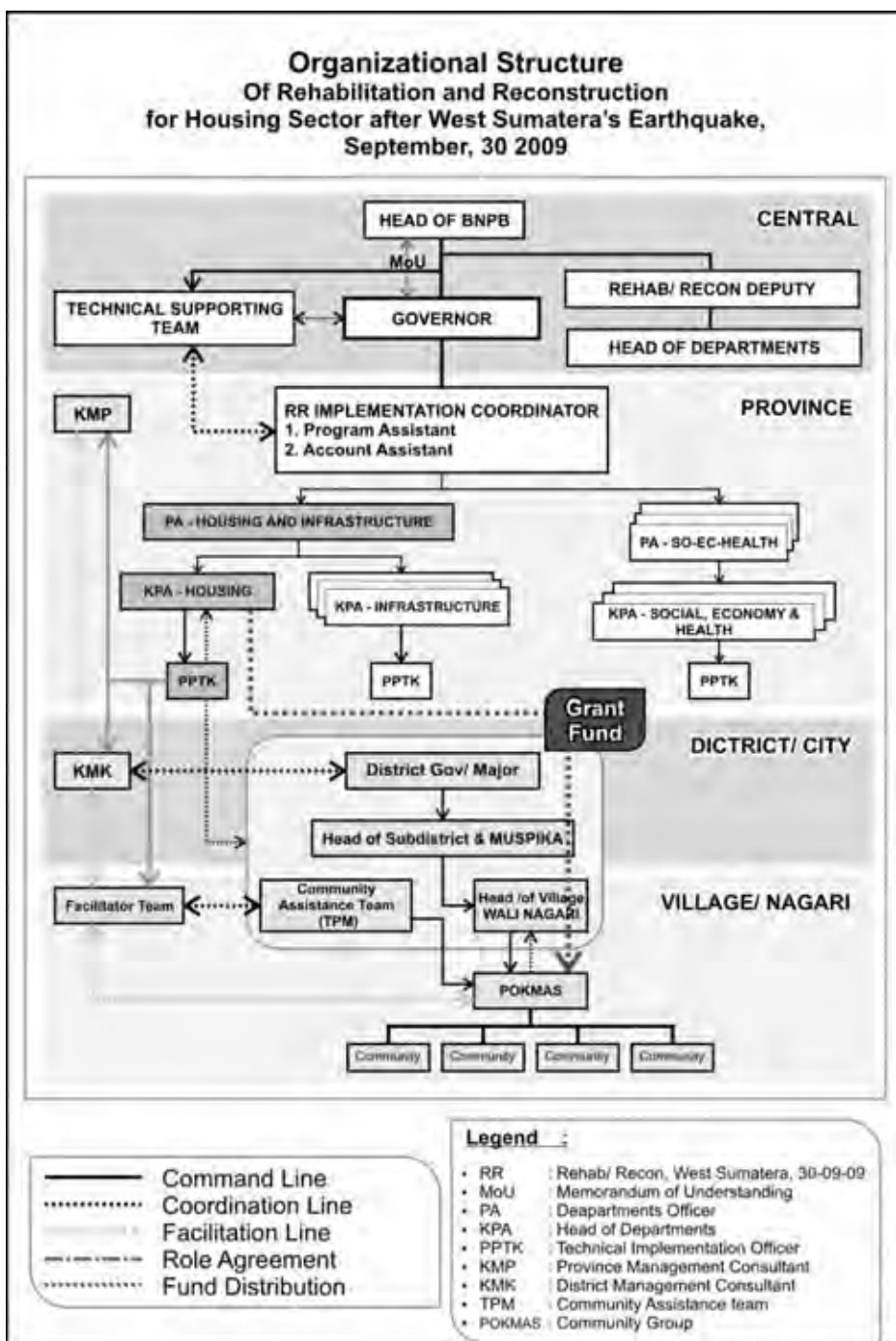


Figure 2.4.2 Organization and Coordination Mechanism of Rehabilitation /Reconstruction

Source: West Sumatra Province, 2010

Table 2.4.2 Advisors for Rehabilitation/Reconstruction

Advisor	Covered Fields
a) Housing	Development Stimulus, Housing Reconstruction and Housing Environmental Infrastructure
b) Infrastructure	Road, Bridge, Irrigation System, Water System, Fuel Distribution Facility and Electricity System
c) Cross Sector	Government Office, Public Service, Environment and Security Control
d) Social	Social Psychology, Health, Education, Religion, Tourism and Culture
e) Productive Economic	Agriculture, Fisheries, Trade, Small Business, and Traditional Market

Source : BNPB, 2010