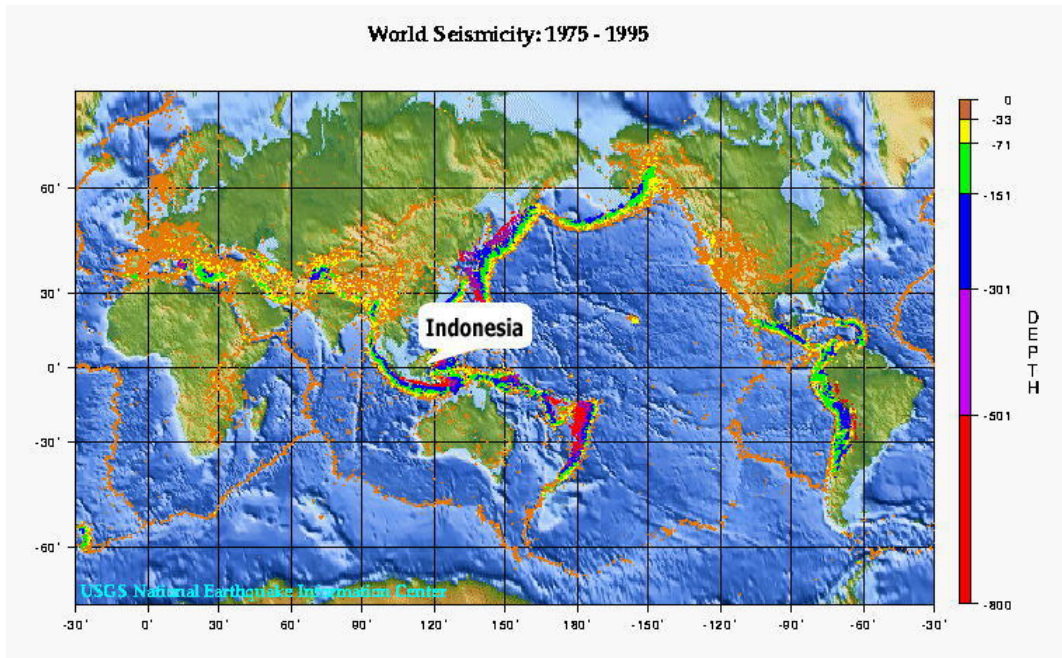




**DISASTERS**

Geographically, Indonesia is located in South East between two Ocean which are Indian and Pacific Ocean. As a tropical country, Indonesia has fertile land with tropical forest on it. However in the last several years, many tropical forest regions have been damage due to the increasing land demand as an effect of demographic growing (The number of Indonesian Population exceeds 220 million in the year of 2000). As a result, environment quality is decreasing thus generates, or at least exacerbated the worse impact of natural disaster.

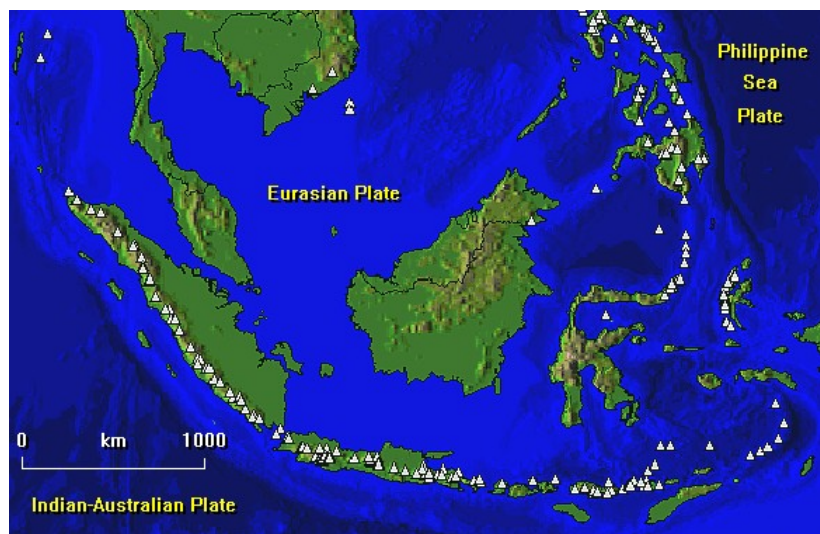
Indonesia is well known as active tectonic region. It consists of three major active tectonics plates which are Eurasia in the north, Indian Ocean-Australia in the south and pacific plate in the east. The plate movements generate subduction type of boundary which takes control on volcanic arc building and produces Sumatera Island, Java Island, Nusa Tenggara and Maluku.



The regions is seismically very active

Besides island arc building, the subduction processes also generate seismic active belt along the volcanic arc. Fortunately, shallow epicenter earthquakes usually occur in the remote areas with less number of populations. However in some cases major earthquake stroke dense populated region such as Bengkulu, Liwa, Bali and Nusa Tenggara (Flores Island). Another type of natural hazards are generated by the tectonic activities are Volcanic Eruption and Tsunami. Some active transforms faults are well known as earthquake generator are The Great Sumatra Fault (Sumatra Island), Palu-Koro (Central Sulawesi/Celebes) Fault and Sorong Fault (Papua Island)

Indonesia consists of more than 500 young volcanoes including 128 active volcanoes. It is representing 15 % of the active volcanoes in the world. The most active volcano in Indonesia is Merapi which is situated 20 kilometers to the north of Yogyakarta. This volcano has been observed continuously by means of telemetric equipment as well as field investigation. Thus, volcanic eruption disasters can be mitigated very well. Many others have also observed quite well in order to minimize volcanic eruption impact.



The Distribution of Volcanoes in Indonesia

Other natural disasters which are generated by or exacerbated by human activities are floods, landslides, drought, land/forest fire. Those are believed as an impact of land or environmental degradation. In the monsoon, Indonesia is threatened by flood and/or landslides which caused loss of human life and property. On the other hand in the dry season, we are facing drought and land/forest fire as well as urban and building fire. Coping with those disasters Indonesian Government was launching a National Movement for Environment Rehabilitation Policy by conducting land rehabilitation and forestation. It was launched by H.E President of the Republic of Indonesia on January 21st 2004 in Gunung Kidul District where is known as mountainous infertile region which is administratively under Yogyakarta Province in Java Island.

Drought is another serious problem faces in the dry season between April and September. Government assisted to have priceless rice and other livestock. This condition also effects on hydro power supply due to significantly lower of water in many reservoir and forest fire. Those types of disasters are considered to be generated by environmental degradation due to deforestation.

Besides natural disaster, Indonesia is also facing man-made type of disaster. The nation of Indonesia is composed of multi ethnics, tribes and religions. This condition is vulnerable to the social conflict which is usually followed by setting fire and demolition of building or settlement.

### Major Disaster in Indonesia in the year 2003

Floods and landslides were predominantly Indonesia's natural disasters in 2003. The global climate changes and regional climate condition were most likely influenced on those natural disasters. Human activities are also exacerbated the disaster. The regional integrated climate monitoring by means of climate data and information exchange will be very useful.

The major and worst disaster in year 2003 was flash flood in Bahorok (North Sumatra). It was caused 160 peoples died and many others are still missing. The disaster has been identified as natural disaster due to high intensity of rain fall few days before the incident happened.



The impact of flash flood in Bahorok, North Sumatra in Nopember 2003

Table 1. Disaster in Indonesia in 2003

No	Type of Disaster	Number of Occurrence	Causalities		
			Died	Injured/affected	Displaced persons
1	Flood	229	416	3,897	383,912
2	Flood and Landslides	43	130	94	71,321
3	Landslides	106	201	287	13,244
4	Storm	42	3	5	1,961
5	Land/forest fire and Haze	28	-	12,851	1,460
6	Urban/building Fire	91	26	794	17,282
7	Earthquake	27	47	300	2,977
8	Epidemic	42	308	15,683	-
9	Social unrest	12	1.038	872	71,277
10	Drought	25	-	-	-
11	Outbreak	7	-	-	-
12	Pollution	2	1	283	-
13	Technological failure	10	223	48	-
14	Tidal	5	-	-	324
15	Bomb blast/explosion	5	16	149	-
16	Volcanic eruption	13	-	-	1,722
	TOTAL	687	2,409	35,218	565,480

## Emergency Relief from Abroad Against Disaster

Under coordination and supervision from the Government, humanitarian assistance from other countries, organizations under the UN, International NGO's and privates from abroad usually give participation almost in all natural or man made disaster as well as IDP's problems especially in the large scale disasters.

## DISASTER COUNTERMEASURES

### Law and Regulation

There are no specific laws or regulations for disaster management in Indonesia. Each type of disaster covered by arrangement of disaster countermeasures is in the sector laws, such as:

- Act No. 11 /1974 concerning Water Resources Management
- Act No. 6/1974 concerning Basic Arrangement on Social Welfare
- Act No. 4/1984 concerning Epidemics
- Act No. 5/1990 concerning Conservation of Biological Natural Resources and Its Ecosystems
- Act No. 23/1992 concerning Health
- Act No. 24/1992 concerning Spatial Planning
- Act No. 23/1997 concerning Environmental Management
- Act No. 41/1999 concerning Forestry

Presidential Decree arranges Establishment of National Coordinating Board for Disaster Management. The last arrangement is PD No. 3 / 2001 and No. 111 / 2001.

### Organization

Government of the Republic of Indonesia has established a national coordinating board for disaster management since 1966, the so-called TKP2BA (1966), BAKORNAS PBA (1967), BAKORNAS PB (1980-2000), BAKORNAS PBP (2001-present).

BAKORNAS PBP is abbreviation of BADAN KOORDINASI NASIONAL PENANGGULANGAN BENCANA DAN PENANGANAN PENGUNGSI (National Coordinating Board for Disaster and Internal Displaced Persons Management), a non-structural organization (board) for disaster management operating under and responsible to the President.

The duties of BAKORNAS PBP are:

- To formulate and decide a national disaster management policies and strategies.
- To coordinate the implementation of disaster management activities before, during and post disaster.
- Rendering guidance and directive on related policies in the efforts to manage disaster (prevention, mitigation, response, rehabilitation and reconstruction).

The BAKORNAS PBP (based on Presidential Decree No. 111/2001) is composed of:

- Vice President of the Republic of Indonesia (chairman)
- Coordinating Minister for Peoples Welfare (vice chairman)
- Minister of Interior (member)
- Minister of Social Affairs (member)
- Minister of Health (member)
- Minister of Settlement and Infrastructures (member)
- Minister of Communications (member)
- Minister of Finance (member)
- Commander in chief of the Armed Forces (member)
- Head of National Police (member)
- Secretary of Vice President (secretary)

To support the duties of BAKORNAS PBP, it was established a Secretariat led by Secretary of BAKORNAS PBP.

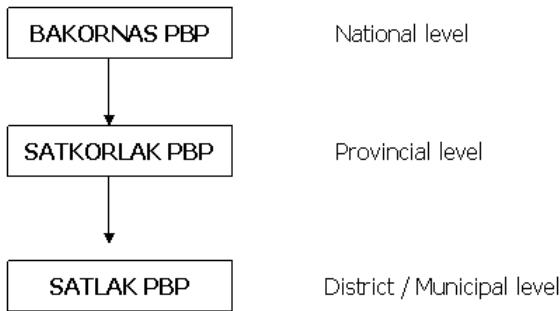
Secretary of BAKORNAS PBP assisted by Vice Secretary and 4 (four) Deputies (Disaster Management, IDP's Management, Cooperation and People Participation, Administration).

The establishment of BAKORNAS is followed by the establishment of similar organizations to cope with disaster and IDP's in provincial as well as district level.

In provincial level, it is established SATKORLAK PBP (Coordination of Implementing Unit) consist of related services, chaired by the Governor.

To cope with disaster in the location, in the district / municipal level is established SATLAK PBP (Implementing Unit), which is chaired by Bupati (Head of District) / Mayor. The SATLAK compose of SATGAS (task forces) of the institutions and services concerned such as health, SAR, army, police, social, public works, Indonesian Red Cross (PMI) and NGO's. District units as front line organization can mobilize all related agencies at their respective districts, sub-districts and villages as well as local community organizations.

The Structure of Disaster Management in Indonesia as follows:



### Total Risk Disaster Management

Strategy and policy coordination in the aspects of prevention and mitigations activities are handled by BAKORNAS PBP. The implementation of the activity, each ministry is dealing with its task respectively.

During disaster in the aspects of rescue, emergency relief to be handle directly by SATLAK PBP in the district level, SATKORLAK PBP in the provincial level and BAKORNAS PBP in the national level respectively.

After disaster in the aspect of rehabilitation to be handle directly by SATLAK PBP or SATKORLAK PBP with line ministry agencies under coordination State Government. With coordination system as mention above all manuals, hazards map, risk assessment are handled directly by each ministry in connection with their task.

### List of Experts

No	Nama	Subject	Instansi	No. Telp
1	Dr. Ir. Hery Harjono	Earthquake	LIPI - Geotechnology	62 22 8757075
2	Dr. Ir. Harkunti P. Rahayu	Disaster Mitigation	Institut Teknologi Bandung	62 811238946 Fax 62 22 2503961
3	Dr. Nanang T. Puspito	Tsunami/Geophysics	Institut Teknologi Bandung	62 811238946
4	Fauzy, PhD.	Earthquake/Tsunami	BMG (Meteorological and Geophysical Agency)	62 21 6546311ext 5318 62 21 6546316 Fax 62 21 4246703
5	Ir. Erna Sri Adiningsih	Remote sensing	LAPAN	62 21 4892802
6	Dr. Paulus Agus Winarso	Climate	BMG (Meteorological and Geophysical Agency)	62 21 6546311 Fax 62 21 4246703
7	Dr. Krishna S Pribadi	Disaster Mitigation	Gd ALSI It 2 Departemen Teknik Sipil ITB Jln Ganesha 10 Bandung 40132	022 2510718, 022 2502272
8	Dr. Dwikorita Karnawati	Landslides	UGM - Yogyakarta	62 274 562880
9	Dr. Agus Maryono	Floods/Hydrology	UGM - Yogyakarta	62 811254254
10	Dr. Bambang Hero	Forest fire	IPB (Bogor Institute of Agriculture)	
11	Dr. Gatot Irianto	Floods/Hydrology/ Agro-Climatology	Center for Soil & Agroclimate Research Jl. Juanda 99 Bogor	
12	Ir. Engkon Kertapati	Earthquake	P3G, Diponegoro 57, Bandung	
13	Dr. A Djumarma	Volcanology	Directorate of Volcanology and Geological hazards Mitigation Jln Diponegoro 57, Bandung	62 22 7272606 Fax 62 22 7202761
14	Dr. Surono	Landslides	Directorate of Volcanology and Geological hazars Mitigation Jln Diponegoro 57, Bandung	62 22 7272606 Fax 62 22 7202761

## DISASTER REDUCTION COOPERATION AMONG ASIAN COUNTRIES

The Government of the Republic Indonesia and Government of Malaysia signed MoU concerning Disaster Cooperation and Assistant in Kuala Lumpur December 11, 1997. Both parties agree to promote and maintain cooperation and may request for assistance upon any occurrences of any disaster in line with the spirit of mutual cooperation. A joint Committee on Disaster Cooperation and Assistance conducted a meeting in Jakarta in July, 1998 to discuss activities such as training, exchange of experts as well as technical and scientific information related any disaster.

On September 23, 1999, BAKORNAS PB and Asian Disaster Preparedness Center (ADPC) signed Memorandum of Understanding (MoU) concerning Program for Understanding Extreme Climate Events. The management experiences of 1997-1998 El Nino and 1998-1999 La Nina revealed that direct application of global forecasting information at the local level passed operational constrained due to uncertainties involved in relating them in a micro geographical setting.

## DISASTER EDUCATION

Improving knowledge about disaster in all aspects is required not only for government official but also for the community. The better understanding on disaster management will significantly reduce the impact of disasters.

Promotion of community awareness particularly those who live in disaster's prone areas have to be prioritized. Empowering communities is conducted by optimizing their own resources and by providing initial limited incentives to enable them to help themselves. Mapping of disaster prone areas in line with disaster information system are also important.

BAKORNAS PBP has made a module to conduct a Basic Training in Disaster Management for SATKORLAK and SATLAK staff. It is also some training like Emergency Management and Contingency Planning (in cooperation with UNHCR).

## Person in charge of the ADRC Activities

Name: Sugeng Triutomo  
Job Title: Director of Disaster Mitigation  
Division/Dept.: Disaster Management  
Organization: BAKORNAS PBP  
Office Address: Jln. Ir. Djuanda 36, Jakarta 10120  
Phone: 62-21-3458400 ext 523  
Fax: 62-21-3458500

## List of Disaster related Websites

No	Institution	Website
1	BAKORNAS PBP (The National Coordinating board for Disaster and IDPs Management)	<a href="http://www.bakornasbp.go.id">www.bakornasbp.go.id</a>
2	Directorate of Volcanology and Geological Hazard Mitigation	<a href="http://www.vsi.esdm.go.id">www.vsi.esdm.go.id</a>
3	Meteorological and Geophysical Agency	<a href="http://www.bmg.go.id">www.bmg.go.id</a>
4	Ministry of Environment	<a href="http://www.menlh.go.id">www.menlh.go.id</a>

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