

INDONESIA



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1. NATIONAL PROFILE

1.1 General¹

Indonesia is the world's largest archipelago, with more than 17,500 islands that scattered between 6 degrees north latitude to 11 degrees south latitude and from 9 degrees to 141 degrees east longitude. Indonesia bridges two continents, Asia and Australia/Oceania. This strategic position profoundly influences the country's culture, social and political life, and the economy.

Spanning the length of 3,977 miles from the Indian Ocean to the Pacific Ocean, if its territorial waters were included, the total area of Indonesia would cover 1.9 million square miles.

The five major islands of Indonesia are: Sumatra with an area of 473,606 square km, Java with an area of 132,107 square km, Kalimantan with 539,460 square km, Sulawesi with 189,216 square km, and Papua covering an area of 421,981 square km.

1.2 Physiography¹

Indonesia is a land of vivid contrasts. Gleaming urban skyscraper tower above tiny roadside kiosks selling ancient herbal remedies thatch-roofed village houses sport a television in the family room and a team of oxen tethered in the yard.

To understand the forces shaping the personality of Indonesia, past and present, many of the nation's most fundamental characteristics can be discerned from the contours of a map.

The map reveals a sprawling nation, tracing the path of the Equator over several thousand miles. Comprising 13,700 islands a bridge between the landmass of Southeast Asia and the continent of Australia, the vast archipelago of Indonesia spans three time zones over a width greater than the distance from Dublin to Moscow, or from Florida to Alaska. Indonesia's historical evolution has been

strongly influenced by the sheer forces of its own geography - with the interplay between climate, rainfall and volcanic activity shaping agricultural and population patterns in different ways throughout the country's enormous diversity of islands. Islands such as Java and Bali are endowed with some of the most fertile soil of the Earth.

For this reason, they are most heavily populated and enjoy the most ancient of cultures. Other regions -- such as Kalimantan, with its heavy forest canopy, or Nusa Tenggara (Lesser Sunda) islands, with their more arid climate -- are home to smaller numbers of people.

The distance separating islands both from one another and from neighboring countries also played a critical role in determining Indonesia's early patterns of settlement and population movement. Whether for trade or cultural reasons, certain regions of Indonesia shared histories that were closely intertwined. Other regions remained largely untouched by outside contact and developed their traditions in relative isolation. Java, for example was strongly influenced by the early Hindu and Buddhist traders from India, as long ago as the 7th century, coastal Kalimantan, on the other hand, was touched more directly by influences from Northeast Asian nations; Aceh, in northernmost Sumatra, was more strongly affected by Islamic traders from the Middle East. All have joined together to create the Indonesian mosaic today.

Geography has also played role in the remarkable diversity of Indonesia's abundant plant and animal life. The 19th-century British botanist Alfred Russell Wallace, who is credited, together with Darwin, with the theory of evolution, determined a precise line of demarcation between the Indonesian islands of Bali and Lombok -- the "Wallace Line" -- which separates the flora and fauna found throughout Asia from those unique to Australasia.

Sometimes called **the "Ring of Fire"** (referring to the chain of active volcanoes that form its spine) Indonesia also is the sole habitat for several of the world's most unusual living species -- ranging from the menacing Komodo Drageon, a 10-foot carnivorous lizard, to a bizarre flower known as Rafflesia, with damp and tropical petals opening more than a meter in diameter. Just as the forces of geography and

climate strongly influenced these islands in the past, they continue to play a critical role in shaping the evolving nature of Indonesia today.

Beginning as a loosely structured amalgam of autonomous regions and races, Indonesia has worked diligently to develop a common national language and a shared political ideology. Together these have played a crucial role in forging former fiefdoms into today's proud unified nation. It was with good reason that the new country adopted as its motto the slogan *Bhinneka Tunggal Ika*. Taken from the ancient Sanskrit means "Unity in Diversity" - aptly expressing the rich complexity of the people of Indonesia and their nation.

1.3 Climate¹

The climate and weather of Indonesia is characterized by two tropical seasons, which vary with the equatorial air circulation (The Walker Circulation) and the meridian air circulation (The Hadley Circulation). The displacement of the latter follows the north-south movement of the sun and its relative position from the earth, in particular from the continents of Asia and Australia, at certain periods of the year.

These factors contribute to the displacement and intensity of the Inter-Tropical Convergence Zone (ITCZ) which is an equatorial trough of low pressure that produces rain. Thus, the west and east monsoons, or the rainy and dry seasons, are a prevalent feature of the tropical climate.

I. The Main Seasons

The climate changes every six months. The dry season (June to September) is influenced by the Australian continental air masses; while the rainy season (December to March) is the result of the Asian and Pacific Ocean air masses. The air contains vapor which precipitates and produces rain in the country. Tropical areas have rains almost the whole year through. However, the climate of Central Maluku is an exception. The rainy season is from June to September and the dry season from December to March. The transitional periods between the two seasons are April to May and October to November.

II. Temperature and Humidity

Due to the large number of islands and mountains in the country, average temperatures may be classified as follows: coastal plains: 28°C inland and mountain areas: 26°C higher mountain areas: 23°C, varying with the altitude.

Being in a tropical zone, Indonesia has an average relative humidity between 70% and 90%, with a minimum of 73% and a maximum of 87%.

1.4 Socio-economic Profile^{2,3}

Socio-economic Indicators		
GDP: Gross domestic product (million current US\$)	2012	878043
GDP per capita (current US\$)	2012	3556.8
GNI: Gross national income per capita (current US\$)	2012	3453.6
Population (millions)	2014	249.87
Urban (% of population)	2013	52.3
Sex ratio (males per 100 females)	2013	101.2
Life expectancy at birth (females/males, years)	2010-2015	72.8/68.7
Education: Government expenditure(% of GDP)	2006-2012	2.8

1.5 Administrative Setup⁴

Administratively, Indonesia consists of 34 provinces, five of which have special status. Each province has its own Legislature and Governor. The provinces are subdivided into regencies (kabupaten) and cities (kota), which are further subdivided into districts (kecamatan or distrik in Papua and West Papua), and again into administrative villages (either desa, kelurahan, kampung, nagari in West Sumatra, or gampong in Aceh). Village is the lowest level of government administration in Indonesia. Furthermore, a village is divided into several community groups (Rukun-Warga (RW)) which are further divided into neighbourhood groups (Rukun-Tetangga (RT)). In Java the desa (village) is divided further into smaller units called dusun or dukuh (hamlets), these units are the same as Rukun-Warga. Following the implementation of regional autonomy measures in 2001, the regencies and cities have become the key administrative units, responsible for providing most government services. The village

administration level is the most influential on a citizen's daily life and handles matters of a village or neighborhood through an elected lurah or kepala desa (village chief).

The provinces of Aceh, Jakarta, Yogyakarta, Papua, and West Papua have greater legislative privileges and a higher degree of autonomy from the central government than the other provinces. The Acehnese government, for example, has the right to create certain elements of an independent legal system; in 2003, it instituted a form of Sharia Law (Islamic law). Yogyakarta was granted the status of Special Region in recognition of its pivotal role in supporting Indonesian Republicans during the Indonesian Revolution and its willingness to join Indonesia as a republic. Papua, formerly known as Irian Jaya, was granted special autonomy status in 2001 and was split into Papua and West Papua in February 2003. Jakarta is the country's special capital region.

<p>Sumatra</p> <ul style="list-style-type: none"> • Aceh (<i>Nanggroe Aceh Darussalam</i>)[*] – Banda Aceh • North Sumatra (<i>Sumatera Utara</i>) – Medan • West Sumatra (<i>Sumatera Barat</i>) – Padang • Riau – Pekanbaru • Riau Islands (<i>Kepulauan Riau</i>) – Tanjung Pinang • Jambi – Jambi (city) • South Sumatra (<i>Sumatera Selatan</i>) – Palembang • Bangka-Belitung (<i>Kepulauan Bangka-Belitung</i>) – Pangkal Pinang • Bengkulu – Bengkulu (city) • Lampung – Bandar Lampung <p>Java</p> <ul style="list-style-type: none"> • Special Capital Region of Jakarta[*] (<i>Daerah Khusus Ibu Kota Jakarta</i>) – Jakarta 	<p>Kalimantan</p> <ul style="list-style-type: none"> • West Kalimantan (<i>Kalimantan Barat</i>) – Pontianak • Central Kalimantan (<i>Kalimantan Tengah</i>) – Palangkaraya • South Kalimantan (<i>Kalimantan Selatan</i>) – Banjarmasin • East Kalimantan (<i>Kalimantan Timur</i>) – Samarinda • North Kalimantan (<i>Kalimantan Utara</i>) – Tanjung Selor <p>Sulawesi</p> <ul style="list-style-type: none"> • North Sulawesi (<i>Sulawesi Utara</i>) – Manado • Gorontalo – Gorontalo (city) • Central Sulawesi (<i>Sulawesi Tengah</i>) – Palu • West Sulawesi (<i>Sulawesi Barat</i>) – Mamuju • South Sulawesi (<i>Sulawesi Selatan</i>) – Makassar • South East Sulawesi (<i>Sulawesi</i>
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<ul style="list-style-type: none"> • Banten – Serang • West Java (<i>Jawa Barat</i>) – Bandung • Central Java (<i>Jawa Tengah</i>) – Semarang • Yogyakarta Special Region* (<i>Daerah Istimewa Yogyakarta</i>) – Yogyakarta (city) • East Java (<i>Jawa Timur</i>) – Surabaya <p>Lesser Sunda Islands</p> <ul style="list-style-type: none"> • Bali – Denpasar • West Nusa Tenggara (<i>Nusa Tenggara Barat</i>) – Mataram • East Nusa Tenggara (<i>Nusa Tenggara Timur</i>) – Kupang 	<p style="text-align: right;"><i>Tenggara</i>) – Kendari</p> <p>Maluku Islands</p> <ul style="list-style-type: none"> • Maluku – Ambon • North Maluku (<i>Maluku Utara</i>) – Sofifi <p>Western New Guinea</p> <ul style="list-style-type: none"> • West Papua* (<i>Papua Barat</i>) – Manokwari • Papua* – Jayapura <p style="text-align: right;">* indicates provinces with Special Status</p>
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2. DISASTER RISK PROFILE⁵

Indonesia ranks 12th among countries having relatively high mortality risks from multiple hazards. Indonesia is situated in one of the most active disaster hot spots where several types of disasters such as earthquake, tsunami, volcanic eruption, flood, landslide, and drought and forest fires frequently occur. According to a global risk analysis by the World Bank, Indonesia is among the top 35 countries that have high mortality risks from multiple hazards with about 40 percent population living in areas at risk. For a country that has more than 230 million population, this percentage gives a very large nominal number of more than 90 million population potentially at risk creating a major humanitarian catastrophe incase large disasters occur.

Increasing frequency of disaster impacting public expenditures. According to the Government’s disaster data, between 2001 and 2007 alone there have been more than 4,000 occurrences of disasters including floods (37%), droughts (24%), landslides (11%), and windstorm (9%). As the disasters damage public infrastructure and people’s homes, mostly uninsured, they created an enormous

burden on public expenditure to restore those facilities.

2.1 Overview of Risk Profile and Disaster Impacts in Indonesia⁶

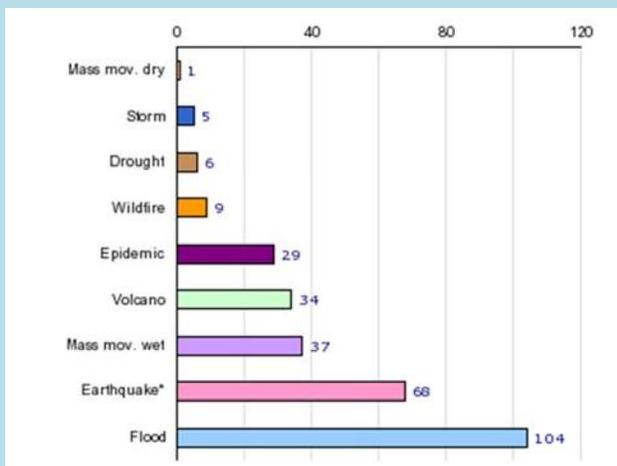
Indonesia is one of the most disaster prone countries in the world. The country faces multiple hazards such as earthquake, tsunami, volcanic eruption, flood, landslide, drought, and forest fires. Data from the United Nations International Strategy for Disaster Reduction (UN-ISDR) mentions that in terms of human exposure, or the number of people present in hazard zones that may lose their lives due to a hazard event, Indonesia ranks 1st out of 265 countries ranked for tsunami hazard, with 5,402,239 people exposed; ranks 1st out of 162 countries for landslide, with 197,372 people exposed; **ranks 3rd out of 153 countries for earthquake, with 11,056,806 people exposed**; ranks 6th out of 162 countries for flood, with 1,101,507 people exposed; and ranks 36th out of 184 countries for drought, with 2,029,350 people exposed.

In terms of economic exposure, which is calculated based on the amount of Gross Domestic Product (GDP) present in hazard zones that are subject to potential losses, for tsunami hazard, Indonesia ranks 5th out of 265 countries ranked, with US \$ 3.46 billions of GDP potentially lost to a tsunami-related disaster event; for earthquake hazard, it ranks 11th out of 153 countries, with US \$ 79.13 billions of GDP potentially lost; for landslide hazard, it ranks 11th out of 162 countries, with US \$ 0.84 billions of GDP potentially lost; and for flood hazard, it ranks 20th out of 162 countries, with US \$ 1.05 billions of GDP potentially lost. It can be said that both in terms of human exposure (mortality) and economic loss risks, Indonesia ranks among countries that have high risks.

Another similar data from the World Bank suggests that, in the overall, Indonesia ranks 12th among countries with relatively high mortality risks from multiple hazards. It is among the top 35 countries that have high mortality risks from multiple hazards with about 40 percent population living in hazard prone areas. For a country that has a population of around 238 million people, this percentage gives a very large nominal number of around 95.2 million People. These figures

imply that a major humanitarian catastrophe might happen should large disasters occur.

Disaster historical data have shown that Indonesia has experienced a substantial number of disasters, with significant number of people killed. In the period of 1980-2008, according to the UN-ISDR, Indonesia has experienced 293 disaster events that have killed 189,615 people, with an average number of people killed per year of 6,538. The number of people affected by those disasters is even bigger, i.e. 18,195,948 people, with an average number of people affected per year of 627,446. Besides human losses, economic damage effect by disasters during the period is also huge. The country suffers an annual economic damage of US \$ 731,705,000 caused by disaster, with a total of US \$ 21,219,450,000 for the period of 1980-2008.³



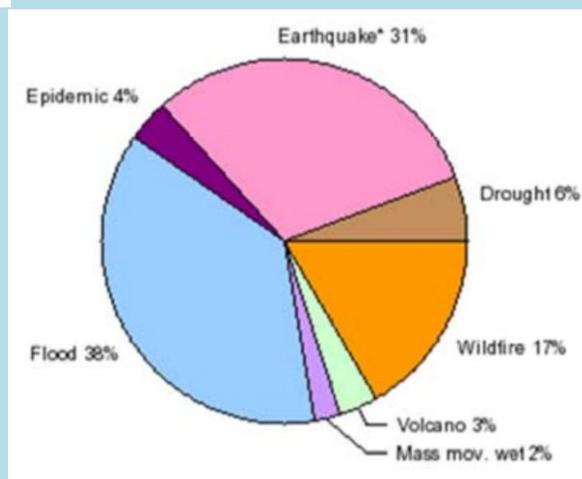
Of the numerous disasters that have happened in Indonesia in the period of 1980-2008, the most frequently occurring is flood (104 times), followed by earthquake (68 times, including tsunami), wet land mass movement (37 times), volcanic eruption (34 times), epidemic (29 times) and the other smaller-scale

Natural Disaster Occurrence in Indonesia in 1980-2008

** Including tsunami*

disasters. The distribution of disasters occurred based on the types can be seen in the below figure.

Of the 189,615 people being killed by disasters in the period of 1980-2008, approximately 95% were killed by earthquake and tsunami, while the other

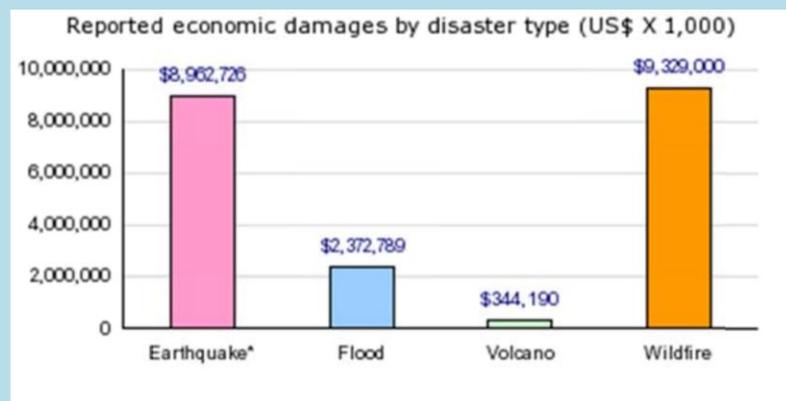


Percentage of People in Indonesia Affected by Disaster in 1980-2008

** Including tsunami*

3% by flood and 2% by epidemic. When in terms of the human loss geological disasters claimed more lives than hydro-meteorological disasters (climate-change related disasters) and epidemic outbreaks, in terms of the number of people affected by disaster, the situation is just the opposite. Out of the 18,195,948 people being affected by disasters in the period of 1980-2008, more than 62% were affected by hydro-meteorological disasters, while around 34% by geological disasters and around 4% by epidemic outbreaks. Below figure from the United Nations International Strategy for Disaster Reduction shows the percentage of reported people affected by disaster types.

As has been mentioned earlier, in terms of economic damage for the period of 1980-2008 Indonesia suffers an economic loss to a total of US \$ 21,219,450,000. Of that enormous amount, the biggest loss is caused by wildfire (US \$ 9,329,000), followed by earthquake (including tsunami, at US \$ 8,962,726), flood (US \$ 2,372,789) and volcano (US \$ 344,190).



including tsunami

Economic Damages by Disaster Type in 1980-2008

2.2 Overview of Disasters^{7,8}

Indonesia suffers from floods, landslides, droughts, tsunamis, earthquakes, volcanoes, forest fires. In particular, floods and earthquakes are the most frequent disasters.

I. Recent Major Disasters

i. Sumatra Earthquake and Tsunami (December 2004)

The Indian Ocean Tsunami which was triggered by the earthquake off the Sumatra Island (M9.1) claimed the live of 165,708, affected 532,898. The total loss was US\$ 4,451,600,000.

ii. Sumatra Earthquake (May 2005)

The M8.6 earthquake occurred at the Sumatra Island on 28 March 2005 killed 845 people in North Sumatra Province and 60 people in Nanggroe Aceh Darussalam Province (NAD). The evacuees rose up to 106,800. The Nias Island was also extensively damaged.

iii. Java Earthquake (May 2006)

The death toll due to the earthquake on 27 May 2006 whose seismic size was M6.3, stands at 5,778, with 37,883 seriously injured. 139,859 houses were completely destroyed whereas 468,149 half destroyed.

Top 10 Natural Disasters in Indonesia for the period 1900 to 2014 sorted by numbers of killed

Disaster	Date	No Killed
Flood	06-Jun-1991	97
Flood	24-Oct-1986	96
Earthquake (seismic activity)	28-Apr-2005	915
Earthquake (seismic activity)	01-Jan-1996	9
Earthquake (seismic activity)	23-Aug-1936	9
Flood	25-Dec-1981	9
Volcano	12-Aug-1966	88
Flood	22-Jul-2007	88
Epidemic	01-Jan-2005	87
Earthquake (seismic activity)	07-Oct-1995	84

Top 10 Natural Disasters in Indonesia for the period 1900 to 2014 sorted by numbers of total affected people

Disaster	Date	No Total Affected
Drought	1972	3,500,000

Earthquake (seismic activity)	27-May-2006	3,177,923
Wildfire	Oct-1994	3,000,000
Earthquake (seismic activity)	30-Sep-2009	2,501,798
Drought	Sep-1997	1,065,000
Flood	23-Dec-2006	618,486
Flood	9-Feb-1996	556,000
Earthquake (seismic activity)	26-Dec-2004	532,898
Flood	14-Mar-1966	524,100
Flood	27-Jan-2002	500,750

Top 10 Natural Disasters in Indonesia for the period 1900 to 2014 sorted by economic damage costs

Disaster	Date	Damage (000 US\$)
Flood	31-Jan-2007	971,000
Earthquake (seismic activity)	11-Feb-2009	9,000
Drought	Sep-1997	88,000
Wildfire	Sep-1997	8,000,000
Volcano	10-Feb-1990	8,000
Flood	16-May-2000	79,000
Flood	Apr-1968	7,831
Flood	2-Oct-2010	78,000
Flood	Dec-1983	7,007
Drought	1972	70,000

3. INSTITUTIONAL SETUP⁵

A comprehensive legislative framework has been put in place, but implementation remains a major challenge.

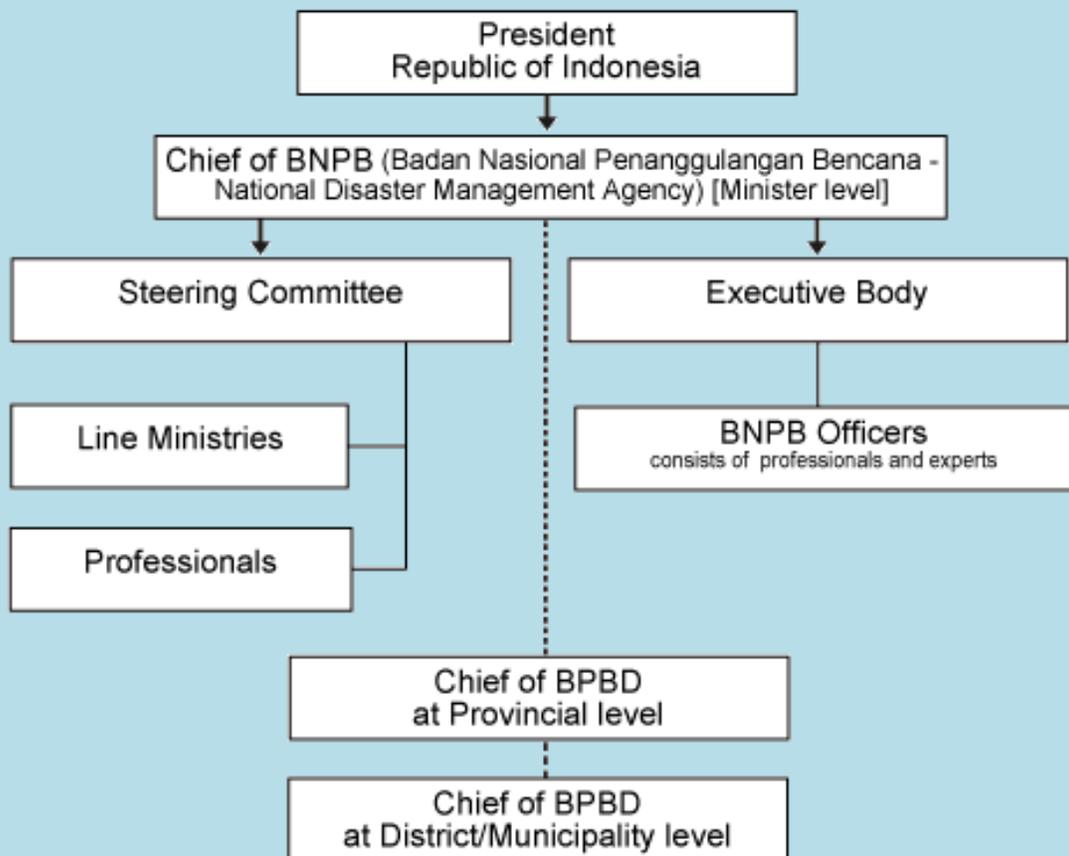
After the 2004 Indian Ocean Tsunami, Indonesia enacted a new Law on Disaster Management (Law 24/2007) that outlines the principles, division of labor, organization and implementation of the national disaster management system, including the role of international organizations. The Law has been further elaborated by the issuance of three key Government Regulations, one Presidential Regulation and numerous implementing guidelines. While the issuance of the legal framework is an important first step, more work needs to be carried out to ensure that the regulations are disseminated and implemented by the respective institutions and observed by the public.

3.1 Legal System

Disaster Management Law No. 24 was enacted in April 2007.

3.2 Organization⁶

BNPB Organization Structure



BPBD= Badan Penanggulangan Bencana Daerah
(Regional Disaster Management Agency)

Badan Nasional Penanggulangan Bencana (National Disaster Management Agency, BNPB) was established in 2008. BNPB consists of the president of the BNPB, the Management and Operational Committee, and the Policy Implementation Agency. Being composed of ten ministries (Ministry of Interior, Ministry of Social Affairs, Ministry of Public Works, Ministry of Health, Ministry of Finance, Ministry of Transportation, Ministry of Energy and Mineral Resources, Police and Armed Forces) and other nine experts, the Management and Operational Committee is in charge of advisory and consultation with the BNPB's president. The Policy Implementation Agency is in charge of increasing preparedness, emergency response, and relief and reconstruction. Also, the Indonesian Government is planning to establish the Regional Disaster Management Agency (BPBD). In November 2008, National Platform was established to expand the cooperation among sectors.

4. INITIATIVES⁹

4.1 National Policy & Plans

- Indonesia: Decision of the President of the Republic of Indonesia on the National Coordinating Board for Disaster Management (Decision no. 43 of 19 September 1990)1990, Indonesia
- Indonesia: Government regulation of the Republic of Indonesia concerning participation of international institutions and foreign non-governmental organizations in disaster management (Regulation no. 23 of 2008)2008, BNPB, Indonesia

References

¹ http://www.undp.or.id/general/about_indonesia.asp

² <http://data.un.org/CountryProfile.aspx?crName=indonesia>

³ <http://hdr.undp.org/en/countries/profiles/IDN>

⁴ <http://en.wikipedia.org/wiki/Indonesia>

⁵ <http://gfdrr.org/ctrydrmmnotes/Indonesia.pdf>

⁶ http://www.aipasecretariat.org/wp-content/uploads/2011/07/Indonesia_Disaster-Response-Management.pdf

⁷ <http://www.adrc.asia/nationinformation.php?NationCode=360&Lang=en&NationNum=03>

⁸ <http://www.emdat.be/result-country-profile>

⁹ <http://www.preventionweb.net/english/countries/asia/idn/>