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**Disaster Policy Change in Indonesia 1930-2010:
From Government to Governance?**

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Scientific study on what actually drives disaster policy reform in the developing world is extremely limited. As pioneering research for Indonesia, this paper questions what are the forms of disaster risk governance in Indonesia through time and what are the main reasons for such changes over time. Disaster reduction policy reform in Indonesia today takes place amid global disaster risk governance initiatives under the auspicious Hyogo Framework for Action. The author observes that changes in disaster reduction policy in Indonesia over the last 80 years have been less attributed to domestic responses to the large scale natural catastrophes than to co-production of and interaction of local and disaster reduction actors and institutions. The paper highlights how new forms of risk governance have emerged from government as a dominant actor during the 20th century to more polycentric governance in first decade of the 21st century in Indonesia.

Keywords: Disaster risk reduction, policy change, disaster risk governance, government, Indonesia, disaster policy reform.

Introduction

Indonesia is the largest archipelagic state in the world, with at least 17,000 islands, of which more than 7,500 have already been named and about 6,000 are inhabited (Ministry of Home Affairs 2009).¹ Its unique position on the Pacific Ring of Fire leads to high exposure to recurrent natural hazards, such as earthquakes, tsunamis, and volcanic eruptions. Indeed, about 10% of the world's volcanoes are situated in Indonesia.

Indonesia has a total population of 234 million (BPS 2009) and nearly half of these inhabitants are now living in coastal cities, which have high exposure to coastal hazards such as tsunamis and floods, including coastal floods and storm surges.

The increased disaster risks triggered by both geological and hydro-meteorological hazards, coupled with anthropogenic drivers throughout the Indonesian archipelago during the last 50 years, have caused a total monetary loss at about US\$24 billion, and at least 95% of the total loss occurred in 1996-2009. The highest losses were due to the 1997 forest fire and drought, for which direct economic losses reported almost doubled those of the Indian Ocean tsunami in 2004 in Aceh (Lassa 2011). The year 2007 marked the start of Indonesian disaster policy reform era because there were dramatic shifts in the form of regulation, benchmarked by the new disaster management law (Law 24/2007). The government started to set a clearer vision of disaster risk management as it claimed to depart from reactive response to be more proactive in reducing risks *ex ante* disaster emergency events (Pujiono 2005).

This paper asks two interrelated questions: First, what has driven changes in disaster reduction policy since the end of colonial period? Or, what are the main reasons behind disaster risk reduction (DRR) policy change in Indonesia during the last 80 years? Second, what forms of disaster governance have taken place over time?

“Disaster risk governance” or “disaster governance” are used interchangeably in the following discussion. The definition of the terms is provided in the next section (Section 2). Section 3 provides the research methods. Section 4 discusses the forms and the phases of disaster governance in Indonesia during 1930-2010. Section 5 discusses the findings. Section 6 reflects and concludes and asks new research questions.

Defining Disaster Risk Governance Framework

Combining *disaster risk* and *governance* together as a concept is a rather new academic exercise (Lassa 2010a). Governance refers to steering privileges that are no longer the monopoly of (the still relevant) “governmental agencies, but [are] *de facto* (and in many cases also *de jure*) the common responsibility of a variety of agencies, representing governmental bodies, market agencies, and civil society organizations” (Arts and Leroy 2006:13). Governance is about being mindful of a multifaceted, multi-level, multi-stakeholder approach and cross-scale dynamics (Cash et al. 2006).

Renate Mayntz argues that governance theory began by “being concerned with the steering actions of political authorities as they deliberately attempt to shape socio-economic structures and processes.” However, recently, “governance” has been used in ways that differ from political steering. First, it is used as an alternative mode of governing that is distinct from the hierarchical control model, namely, “a more cooperative mode where state and non-state actors participate in mixed public/private networks.” Second, it is used to mean different models of coordinating individual actions

or basic forms of social order (Mayntz 2003:27). Mayntz (2003) further claims that modern governance after World War II arose from the growing aspiration of governments to steer their nations towards better defined goals of social and economic development. The first phases of this development are as follows: First, in the late 1960s, the trend began with a boom of theory of planning for (and how to steer) economic development. Second, in the 1970s, as the planning euphoria declined, empirical analysis became preferable for policy development; this directed attention to contextual factors influencing policy development, in particular executive government organization. Different policy instruments were discussed, in particular the rule of law. Finally, in the second half of the 1970s, policy implementation became a new research focus. As Mayntz (2003:29) noted, “the first paradigm of governance concept was thus concerned with policy development and policy implementation and it adopted a top-down or legislators’ perspective.”

Adopted from McGinnis (1999), Lassa (2010a) defines disaster risk governance (DRG) as the way society as a whole manages its full array of disaster risks that may be triggered by geological hazards such as earthquakes; climate change and hydro-meteorological hazards (such as floods and cyclones); conflict and war in order to sustain development, human welfare, and dignity. It promotes the notion that there are many overlapping arenas (or centers) of authority for decision making and responsibility for disaster risk reduction. DRG acknowledges new alternative forms of policy and regulation that are distinct from traditional hierarchical government activity and implies an alternative form of governance that is more inclusive to diverse actors and diverse knowledge. It does not mean that government no longer has a role because, in fact, governments are expected to steer the conditions of inclusive governance. In other words, any form of governance of disaster reduction may be subject to government “approval”.

It calls for consideration of balancing both contextual formal institutions (laws, regulations, policy) and informal institutions (norms, culture, customs) and the inclusion of agencies and actors (local-national-global with consideration of gender, age, and class), as well as different perceptions and types of knowledge of disaster risk reduction. At operational levels, from the global level to the national level down to the village level, there is a range of actors involved in reducing risk—state actors (executive and legislative agencies), United Nations agencies, Red Cross, local and international non-governmental organizations (INGOs), grassroots organizations, professional associations, and private businesses (Lassa 2011).

The established concept “disaster risk management” (DRM) is embedded in the disaster risk governance concept. In comparison to DRM, the DRG concept offers a greater emphasis on the decision-making process regarding disaster reduction policy and regulations with greater acknowledgement of the complexity, conflicts, and interests of actors, multi-dimensionality and interplay of various institutions and actors at multiple levels as well as the polycentric nature of decision making regarding disaster risk

reduction. DRG, in other words, provides the institutional and governance framework within which DRM is to be implemented (Lassa 2011).

Research Methods

To answer the research questions, the author uses mixed methods such as literature reviews, participant observation, and unstructured interviews of key actors at the national level, and literature reviews (DRM policy documents produced during 1930-2010). The literature reviews and ethnographic research guide the author to investigate the history of disaster management policy during the past 80 years. It is widely accepted by social science researchers that documents are sources of data for many different types of analysis such as discourse analysis, content analysis (Briman 2004), or policy change analysis (Marston 2004). The documents can be personal documents, official documents from government and/or non-governmental organizations, private organizations, mass media, and the internet (Briman 2004), and can be in the form of manuals and guidelines. What are defined as “documents as sources of data” are the materials that can be read, have not been produced specifically for the purpose of social research, and are preserved so that they become available and are relevant to the concerns of the social researcher (Briman 2004:381).

Participant observation and unstructured interviews were used at the targeted “communities” that were mainly disaster management professional and policy communities. The author employed participant observation and unstructured interviews to collect information from relevant disaster management stakeholders such as Indonesian Disaster Management Society and National Disaster Management Office. This research benefited much from the author’s existing links and networks in Indonesia, such as the Indonesian Disaster Management Society and DRR-related civil society organizations, which were advantageous, especially during data collection.

Indonesia Disaster Management Institutional Change: From 1930-2010

Indonesia has been experiencing different government and political regimes. The first was the Dutch colonial government regimes that formally ended in 1949. De facto, the Dutch colonial government had exercised no power during the Japanese occupation from 1942-1945. The Sukarno regime, which was the first authoritarian regime that ruled the country (1945-1966), was replaced by the “New Order”, the era of Suharto’s authoritarian rule that started in 1968 and collapsed in 1998 at the hands of mass reformists. Since 1999, reformation regimes have governed under three presidents—Burhanudin Yusuf Habibi (1998-1999), Abdulrahman Wahid (1999-2001) and Megawati Sukarnoputri (2001-2004). Since 2004, Indonesia has been ruled under the post-reformation regime of Susilo Bambang Yudhoyono (that is expected to rule till 2014).

Indonesia rejects federalism because of its unitary state ideology rooted in the 1945 Constitution. In contrast to the United States' decentralized system that delegates powers to the state-government level (equivalent to provinces in Indonesia), Indonesia has taken a different path since 1999 by decentralizing central government power directly to cities/districts and not at the provincial level, except for the special case of Aceh province. More than 220 new cities/districts (municipalities/regencies) have been created since 1999. In 1998, the total number of cities/districts was 280 and in 2010 it was 500 (Lassa 2011). Indonesia's decentralization is characterized by multiple hierarchies of structure, function, funding, and areas of responsibility. There are "missing links" in vertical governance (Sudarmo and Sudjana 2009) that affect the steering power of central and provincial governments to enforce national policy at the city/district level. This paper limits its scope to only discuss macro level changes at the national levels.

In contrast to the United States, Indonesian politics do not have real opposition power that may challenge any ruling regime to change policy direction. It may sound like an exaggeration to expect Indonesian legislators to play a critical role in the ruling government because the practice of political opposition is not yet fully developed, even though it is possible by law. In the words of experts, opposition practice in Indonesia "remains structurally weak and divided." (Aspinall 2000)

This introduction guides the readers to understand the phases of disaster risk management policy and different forms of disaster governance practice in Indonesia which is divided into six different eras (Table 1). The first era is the colonial emergency policy created at the end of the 1930s. The second era is demarcated from independence in 1945 until the early 1960s. The 1960s-1990 can be considered as the third period. The fourth era started in 1990, at the beginning of the formal period of International Decade for Natural Disaster Reduction (IDNDR). At the end of the IDNDR era, Indonesia entered its fifth phase of DRM policy during 2000-2007.

Disaster Management Institutions in Colonial Period

The colonial emergency management policy was also known as *Regeling op de Staat van Oorlog en van Beleg* (shorten as SOB) endorsed in 1939 (Hariyono 2008). It was an important piece of legislation that determined disaster management and emergency policy in Indonesia for the next 20 years after independence in 1945 and its influence can be tracked during the New Order period. The SOB 1939 regulated states of emergency that might arise from acts of external agents (mainly external siege by foreign forces at the beginning of World War II). SOB 1939 distinguished between two different situations: the *Staat van Oorlog* (SvO) declared an ordinary war situation and the *Staat van Beleg* was activated under extraordinary conditions of a war emergency².

For both conditions, the general governor had no obligation to seek permission from *volksraad* or legislative body in times of emergency (see fuller discussion in Hariyono

2008:24-34). The links between emergency and mitigation policy in the Netherlands and its colony of the Netherlands East Indies (i.e., Indonesia) will not be discussed; however, study of such links is well recommended for further scientific investigation.

Table 1. Phases of Disaster Risk Management Policy and Regulation in Indonesia

Phases	Name of Law/Regulation	Remarks
Colonial Emergency Policy 1930s – 1945	Regeling op de Staat van Oorlog en van Beleg a.k.a. SOB 1939. This was later formally cancelled 12 years after independence through Law 74/1957	This regulated war emergencies and extraordinary emergency wars. Officially, it co-existed with Emergency Law 6/1946 for 11 years till 1957.
1945-1960	Law 6/1946 on Emergency Situation (or Bahaya), The amendment of Emergency Situation Law 1/1948, and Law 30/1948 on Transfer of Full Sovereignty to the President during Danger Situation	Regulated emergency situation due to war and natural disasters – the original law 6/1946 acknowledged civil society actors as an alternative power to deal with emergency.
1960-1990	Keppres* 54/1961; 312/1965 regarding Central Committee for Natural Disaster Shelter; Keppres* 256/1966 and Cabinet Presidium Decision 14/U/Kep/1/1967 on Coordinating Team for Natural Disaster Management Implementation; Advisory Agency on Natural Disaster Management Keppres 256/1966; Keppres 28/1979 - National Coordinating Agency for DM	Ad hoc emergency response committees for natural disasters – government-centric. Three revisions of DM regulation during 1965-1967 due to large-scale and nationwide impact of El Nino-driven drought as well as the eruption of a volcano
1990-2000	Keppres 43/1990 - National Coordinating Council for Disaster Management; Keppres 106/1999 - National Coordinating Council for Disaster Management	A shift to re-acknowledge manmade disasters. It suggested considering both natural and manmade disasters. This coincided with the IDNDR period.
2001-2007	Perpres** 3/2007 on Amendment of Perpres** 83/2005 National Coordinating Council for Disaster Management; Perpres 83/2005 - National Coordinating Council for Disaster Management; Keppres 111/2001 Amendment of Keppres 111/2001; Keppres 3/2001 - National Coordinating Council for Disaster Management and Internally Displaced People	2001 amendments of Presidential Decree were made to accommodate the need for aid distribution to internally displaced people during 1998-2002. The 2007 amendments were related to catastrophic events such as the Indian Ocean tsunami in 2004 and the devastating earthquake in Yogyakarta in 2006.
2007 onwards	Disaster Management Law 24/2007 enforced at national level through Presidential Regulation 08/2008 regarding NDMA; PP*** 23/2008 regarding Roles of International Agency and INGOs in DM; PP*** 22/2008 on Budgeting and Management of Disaster Aid and PP 21-2008 DM Implementation/Operational	Long deliberative processes since 2005 with hundreds of meetings/public debates/hearings/consultations. Drafts provided by many different sources, with local and international support behind the scenes. See section 6.5 for more detail explanation.

Source: Author; *Keppres = President's Decree; **Perpres = Presidential Regulation; ***PP = Government Regulation.

In terms of investment in science, the colonial government was far more advanced in comparison with the later nw government of Indonesia, especially during the period from 1945 to the 1960s. It was not simply the lack of human resources but also the radical change in the organizational and institutional “template” (e.g. leadership, bureaucracy’s

epistemic culture (Knorr-Cetina 1999)³, national institutions, etc.) that set back the young state for quite some time.

Another obvious reason for the discontinuity of institutions dealing with geo-risks is the multiple displacements of the Geological Agency (including its Volcanological Survey) over a period of more than 30 years. The Geological Agency during 1945-1946 was under the management of the Ministry of Public Works. During 1946-1947, it went under the management of the Wealth Minister. During 1949-1950, it went under the remit of the Wealth and Industrial Ministry. During 1952-1957, it went under the remit of the Ministry of Economy. During 1957-1959, it went under the remit of the Industrial Ministry and, in 1966-1974, it went under the remit of the Department of Ministry of Trade and Mining. It enjoyed stability during 1974-1992 as it was administered only by the Ministry of Mining. In 1992, the government changed this institution from the Ministry of Mining to the Ministry of Energy and Mineral Resources.

The Krakatau eruption in 1883 was probably one of the largest emergency relief operations in the Dutch colonial government period. It would be incorrect to say that the Netherlands East Indies government disregarded the importance of dealing with natural disasters given the absence of specific notes in the SOB 1939 to cover natural disasters. In fact, the opposite might be the case in that the colonial government learned from the Krakatau eruption on 27 August 1883. One month after a catastrophic eruption and tsunami, while people were still dealing with emergency operations such as burying the dead and clearing wastes and ruins, rebellion actually took place in Serang, Banten Province. Such a rebellion reemerged at greater intensity five years later. Winchester (2003) asked the question of whether social change after the Krakatau disaster (e.g. the fading of the influence of the colonial government, the loss of its self-confidence after the Krakatau disaster, and the rise of the Banten peasants' revolt backed up by Islamic teachers and *hajjis*) in Banten, which later propagated the spirit of anti-colonialism elsewhere, might have triggered movement in the rest of Java (see Winchester 2003:334-445). The teachers and *hajjis* applied religious explanations about divine punishment to the colonial government as well as the Banten people who served this 'non-believing' government. Kartodirdjo (1966) stated that the revolts were due to the misery directly caused by exploitation through the colonial system and later severely amplified by the Krakatau tsunami in 1883 that swept through Banten's coastal communities.

Indonesian Disaster Management Policy 1946-1960s

In fact, in the United States during the 1960s, government-supported disaster sociologists tried to understand people's behavior during disasters, which was to enable the government to understand how people would react to nuclear attack as well as natural hazards and technological disasters (Tierney 2007, p.504). The context of 1960s' disaster

policy is often known as the pattern of war approach and military orientation of disaster inquiry during the Cold War period (Gilbert 2005).

One year after independence in 1946, the young state started to regulate emergency management by taking natural disasters into account in addition to manmade emergencies through National Law 6/1946. There are important lessons from Law No 6/1946. Firstly, surprisingly, from early on and just before the nation experienced its first authoritarian regime, in the so-called Old Order period, the government acknowledged the power of civil society actors, especially the prominent Islamic organizations, as civil stakeholders to deal with emergencies. Furthermore, as another interpretation to the law, it accepted a great deal of influence of civil bureaucrats and early civil society organizations in the drafting of the law by bringing in other actors to tackle potential *bahaya* (a direct translation is *danger* but can mean *emergency*) and there were demands not to hand all power to the military in emergencies (including those caused by natural disasters; see Hariyono 2008, p.39).

Law 6/1946 marked government attention to considering natural disasters as the fourth external agent that might be a threat to the young nation (along with external attacks by foreign military, potential attacks by a latent enemy, and riots that might take place beyond the civilian government's capacity to control). The law placed the authority of emergency management at the National Defense Council, which comprised the prime minister⁴ and relevant ministries, three civil society organization representatives (mainly faith-based), and the military commander. It stated that the president could declare a dangerous situation to the nation that may arise from natural disasters (Article 1-d, UU 6/1946 about dangerous situations). However, Law No. 6/1946 was short-lived and soon became redundant, an example of 'institutional mortality', a term coined here to explain either abandoned laws produced by the government (hence, wasted investment) or the absence of law enforcement at all levels. When the first regime under President Sukarno became authoritarian, the law was amended by Law 1/1948 and later Law 30/1948 regarding the transfer of full sovereignty to the president during states of national emergency.

This can be considered the second form of disaster governance in Indonesia, when the design of emergency laws was driven by post-Second World War logic, and when emergency management heavily focused on attacks from either foreign powers and/or civil war. There was very little paradigm shift towards the need for natural hazard management (pre and post disasters) because, during this period, apart from a large-scale eruption of Kelud volcano in East Java in 1951, which only attracted scientists, there were no significant "focusing events" (Birkland 1996) that triggered a policy and political response towards the management of natural hazards.

During the period of 1945-1959, the focus of the national governments was fully on building a nation state and most priorities were focused on the details of various sectoral

legislation developments and legislation products related to the formation of new administrative units throughout Indonesia (Lassa 2011).

In the mid-1950s, the government produced the Five Year Development Plan 1956-1960 document, one of the earliest development policy documents that revealed early recognition of disaster risk within a development context (Republic of Indonesia 1958). There are at least two important written messages: an awareness regarding the roles of forest ecosystem services to mitigate disaster risk (Republic of Indonesia 1958, p. 27)⁵ and post-disaster policy mandated to the social service sector to provide assistance for people affected by natural disasters, conflicts, wildfire hazards, displaced persons, and the victims of attacks by dangerous animals and beasts (Republic of Indonesia 1958, p. 143).

Changes occurred in the 1960s when some regulatory tools related to disaster response were produced. At least five organizations related to disaster response were produced during this period, such as the Central Committee for Natural Disaster Shelter⁶, the Advisory Agency on Natural Disaster Management⁷, and the Coordinating Team for Natural Disaster Management Implementation.⁸ All these agencies were *ad hoc* in nature. However, in practice, things stayed the same because these agencies were merely reactive to disaster events; there is barely evidence that they comprised an *ad hoc* structure that could act prior to events (see also Department Sosial 1976).

Indonesian Disaster Management Policy 1960s-1990

During the 1960s there were some natural hazards with catastrophic effects, such as the Mount Agung eruption in Bali, which killed about 1,600 people in February 1963; the El Nino drought-related events, which resulted in about 8,000 deaths in 1966; and the Mount Kelud eruption, which resulted in the deaths of about 200 people also in 1966⁹, which was far less intense than the eruption in 1856 when lahars¹⁰ were emitted that killed 10,000 people. The different numbers of deaths are not because of better policy or better capacity in volcano preparedness in 1966, but simply different scales and characters of the eruptions; clearly, the magnitude and characteristics of hazards play roles in shaping the risks (Alexander 1993).

There was a paradigm shift from war/conflict to “natural” disasters during the 1960s, which can be considered an achievement of institutional change, the main cause of which was probably an increase in the number of natural hazard events that drew attention from the government. However, in terms of manmade disasters, this was probably the worst period in the nation’s history. The second half of the 1960s was a bad time in Indonesian politics. With the fall of the Old Order regime under Sukarno’s presidency and the coming of the New Order regime under General Suharto, Indonesia experienced a high level of political instability during 1965-1970. During 1965-1966, many political scientists have asserted that political conflict caused a total of about 500,000 deaths

(McGregor 2009) especially among those associated with the Indonesian Communist Party. Such a catastrophic number is obviously greater than the result of any single natural hazard that has occurred in Indonesia, and even worse than the combination of all the total losses of life triggered by natural hazards during the past 50 years in the country.

It is understandable that knowledge of disaster risk management during the 1960s was lacking as elsewhere in the world and more lacking in the developing world. Few scientific conferences took place during this period, but some international reports regarding geological expeditions in Indonesia during the 1960s are available. For instance, a volcanological mission from UNESCO studied volcano-associated risks in Indonesia (Tazieff, Marinelli, and Gorshkov 1966). At the national level, knowledge accumulation was achieved at a very low rate and one of the problems was that the government of the 1960s was not able to capitalize on all the knowledge produced by technical agencies such as the Geological Agency (established in the 1850s, which later created its volcanological research division (*Volcanologisch Onderzoek*), in 1922 as well as the meteorological office, established in 1866). The Geological Agency emerged from the “Volcanological Survey of the Netherlands East Indies”(See www.bgl.esdm.go.id). In addition, these kinds of technical organization suffered the discontinuity of support from the Dutch Government, which occurred at the end of 1949 after the handover from the Dutch government following the decision to grant full independence.

Natural events such as volcanic eruptions during the 1970s did not appear to be on the same scale (in terms of impacts such as loss of life and damage) as those in the 1960s. However, it was mainly that all large-scale natural hazards in the 1970s happened on remote islands or away from Java; the major event that was closest to the country’s administrative and population centers was in Bali, while others happened on Flores and in the West Papua region¹¹. In the Flores region in 1973, there was a cyclone that killed about 1,600 people according to EMDAT 2006 (www.emdat.be). In 1976, there were modest earthquakes in Bali and West Papua, which caused over 1,000 casualties. In July, 1979, there was a large-scale event of a landslide-triggered tsunami on Lembata Island, Eastern Flores, which killed more than 500 people (Jeffery 1981). Five months before that, less than 100 kilometers away from Lembata in the Eastern Flores district, at least 500 people died due to flash floods and *lahars* swept away 50% of Larantuka Town situated beneath the dormant Ile Mandiri volcano mount (Lassa 2009).

Given the history of ASEAN (Association of Southeast Asian Nations) Cooperation on Disaster Management, disaster policymaking in Indonesia during the 1970s was not completely isolated from regional and international processes. In 1971, disaster management experts in the ASEAN region formed the ASEAN Expert Group on Disaster Management (AEGDM) and met every two years. In five years, the issue of regional cooperation in the field of disaster management was adopted as one of several ASEAN objectives and principles stipulated in the Declaration of ASEAN Concord I. This was

further manifested as the ASEAN Declaration on Mutual Assistance on Natural Disasters in June, 1976¹².

The Declaration of ASEAN Concord (Bali Concord I), adopted on 24 February, 1976, further stressed the need for cooperation in disaster management within ASEAN. One of its eight principles was: “natural disasters and other major calamities can retard the pace of development of member states; therefore, they shall extend, within their capabilities, assistance for relief of member states in distress.” The agreement was known as ASEAN Declaration on Mutual Assistance on Natural Disasters – signed in Manila on 26 June, 1976. Looking at the driver behind these initiatives, it was partly in the United States’ interest to fund such kinds of declaration as soft mechanisms to control the influence of communism in the region in this Cold War period (Buszynski 1992).

Indonesia’s approach to the structure of disaster risk management shared a similar history to that of other Southeast Asian countries such as the Philippines. In the Philippines, following the earthquake of 1968, the Civil Defense Administration was pushed to create an *ad hoc* structure called the “National Committee on Disaster Operation” (based on the Administrative Order No. 151, 1968). This was later changed following the Sening typhoon that devastated the Bicol Region and inundated metropolitan Manila for almost three months, which placed great pressure on the government to create a National Disaster Control Center. The Civil Defense Administration era was superseded by the new Office of Civil Defense, which was to ensure protection of people during calamities. However, in 1978, a presidential decree (No. 1566) provided a new milestone for the establishment of a structure of disaster management, namely, the National Disaster Coordination Council (NDCC) including regional and local structures. The NDCC under the presidential decree lasted for 32 years until the country changed its institutional structure (namely, the National Disaster Risk Reduction and Management Council) through the new Disaster Risk Reduction and Management Act in February, 2010 (see <http://ndcc.gov.ph/home/index.php>).

Returning to Indonesia in July, 1976, one of the first recorded national multidisciplinary workshops on disaster risk management was held in Jakarta, and was attended by stakeholders such as the National Development Planning Ministry, the Health Department, the Finance Minister, the Office of Meteorology and Geophysics, the Geological Survey, the Indonesian Red Cross, and international players such as the United Nations Development Program and USAID—one of the main sponsors of the ASEAN agreement. Only one multilateral agency, the United Nations Development Programme (UNDP), presented a paper related to “pre-disaster planning and relief instruction” and some national organizations started to argue about the need for disaster mitigation (Departement Sosial 1978:14)

Table 1 suggests a shift of institutional focus from manmade disasters (such as war/conflict) to natural hazards in the earlier period in the 1960s lasted till 1990. This can be interpreted as a dramatic change of focus towards natural hazards, especially when a

presidential decree was finally issued in 1979. The 1979 disaster management regulation placed emphasis on natural disasters. Disaster risk management activities during this period were reactive emergency response and recovery as indicated by the decree. The structure was often activated after disasters (Pujiono 2005). The organizational format of the “National Coordination Agency” lasted for almost 30 years (with different names from time to time—“National Coordination Agency”, “natural disaster management”, “disaster management”, or “disaster management and internally displaced people”), but it was succeeded by the new format of the National Disaster Management Office in 2008 as stipulated in Disaster Management Law 24/2007, three years after the Hyogo Declaration.

The national disaster management institutions were partially dormant because of either a lack of natural disaster events during the 1970s or the remoteness of the events from Jakarta that did occur. There was no significant institutional change from the second half of the 1960s until the end of the 1970s, when, in 1979, the government suddenly produced a presidential decree regarding the National Coordinating Body on Natural Disaster Management (a.k.a. Keppres 28/1979).

From ignorance of the need to manage natural hazards before the 1960s, the government was now committed to more serious actions. This was an indirect product of a discursive change on the need to have a fixed structure to manage natural disasters, which had some roots in the ASEAN regional workshops on disaster management during the 1970s. The details of how this change happened are subject to further academic investigation, but the organizational change only happened at the surface with a shift from *ad hoc* committees to a coordinating body that could organize all disaster cycles (in accordance with Cuny and Abrams’s cycles of prevention, mitigation, preparedness, emergency, rehabilitation, and reconstruction—Cuny and Abrams 1983). Presidential Decree 28/1979 had the noble objective of taking natural hazard management more seriously than the Old Order regime by recognizing the need for systematic emergency management triggered by natural events. The departure from war/conflict towards a post-natural disaster focus was not by chance. Nevertheless, enough evidence suggests that national-international interaction since the early 1970s had managed to place this agenda on the table of the government.

Indonesian Disaster Management Policy in 1990s

In the 1990, at the same time as the start of the IDNDR, the government corrected the 1979 decree arguing that a focus on only natural disasters, with a purely humanitarian emergency and post-disaster response-oriented policy, was not enough. It suggested reconsideration of non-natural hazards and, for the first time, formal recognition of the need to work in accordance with disaster management cycles, the famous before-during-after disaster management. In Presidential Decree 43/1990 on “National Coordinating

Council for Disaster Management,” it was argued that the country needed to manage disasters (both natural and manmade) in different phases, such as prevention, mitigation, emergency response, rehabilitation, and reconstruction.

The 1992 Flores disaster has been remembered as one the largest-scale disasters in Indonesia at the end of the 20th century; it taught important lessons to the central government, as stated by a former Minister of Finance that “Flores goes back to the pre-development era before 1970” because the destruction of the development infrastructures and people’s assets invested over a quarter century had set the region back to poverty in only a few hours. This awareness is well recorded in a local newspaper (Ministry of Finance’s explanation in *Tabloid Dian*, January 1993). However, this national disaster was not translated into a nationwide transformation of disaster mitigation and preparedness, which did not happen for almost 15 years.

The reason that the government declared the Flores tsunami in 1992 as a national disaster was that the tsunami had caused “suffering, loss of life, and enormous material losses to society. Considering the impact of such a disaster and the need for response efforts and recovery, it is deemed necessary to establish the national disaster status” (Presidential Decree No 66/1992 on Decision on Status of Flores Natural Disaster as National Disaster. Page 1 points a and b). This editorial text was exactly used again following the tsunami on 26 December, 2004, with additional text to give a National Day of Mourning (Presidential Decree 112/2004 signed on 27 December, 2004).

At the end of the IDNDR period in 1999, a new presidential decree was issued to correct the one made in 1990, which was justified by stating that the National Coordinating Agency for Disaster Management had not been mandated to deal with disasters that arose from riots and mass violence. This change was partly a reactive response to the fall of the New Order regime in 1998, when violence suddenly spread in many parts of Indonesia, which was caused by many internally displacement persons (IDPs). However, the 1999 regulation (Keppres 106/1999—National Coordinating Council for Disaster Management) did not regulate the IDPs even though it was coincident with the crisis in Timor Leste together with the East Timorese refugees’ influx to West Timor in 1999.

Indonesian Disaster Management Policy 2000-2007

The answer to the call for a more serious approach to IDPs (at least on paper) took place in 2001 with two sets of revisions: the first was the revision of the 1999 regulation to revise the name to the National Coordinating Council for Disaster Management and Internally Displaced People (Keppres 3/2001); this was revised again in a Presidential Decree (Keppres 111/2001) in the same year with the same title held until 2005.

Based on personal observation, the nature of this revision was probably related to the introduction of the “Guiding Principles on Internal Displacement” by United Nations

Commission of Human Rights. In Indonesia, this guideline was translated in early 2000 by civil society organizations such as Oxfam. Furthermore, the issue of IDPs came to the fore in 2001 when prominent international and multilateral agencies dealing with the refugees from East Timor in West Timor were removed from their operation in the year 2000 owing to the killing of three staff of the United Nations High Commissioner for Refugees (UNHCR) in August, 2000. With the dearth of resources to meet the basic needs of the refugees (for the East Timorese who resided in Indonesia) and IDPs (e.g., East Timor-born Indonesians and other IDPs throughout Indonesia produced by conflicts in several regions), the national government needed a new justification for financing humanitarian responses. This partly forced the government to create new rules to be legally and politically appropriate for dealing with both IDPs and refugees. Therefore, Law 3/2001 on “National Coordinating Council for Disaster Management and IDPs” was signed. For the first time, the Minister of Transmigration was included in the structure of national disaster management (i.e., Bakornas) in Presidential Decree 3/2001.

The 2000-2007 period was noted for a willingness to increase the legitimacy of the Bakornas by giving power to the vice president in terms of direct responsibility to command the system of disaster management in all four versions of Presidential Decree (Keppres) 3/2001, Keppres 111/2001, Perpres 83/2005, and Perpres 3/2007. The notion of carrying out disaster reduction beyond the government, namely, governance, emerged notably after the fall of the Suharto regime. In 2003, in the opening remarks of the *International Seminar and Workshop on Tsunami: In Memoriam 120 Years of Krakatau Eruption—Tsunami and Lessons Learned From Large Tsunamis*, the former coordinating minister of social welfare (later a vice president in 2004-2009) noted the following: “Disaster is our responsibility. Not merely government responsibility but also that of the private sector and society.” This view of shared responsibility to manage risks of disasters is not new as it has existed in practice, notably since the 1990s. The speech was given exactly a year before the catastrophe of the Indian Ocean tsunami. As the Head of Bakornas, Mr. Kalla noted “it is difficult to predict when tsunamis will occur. Scientists have predicted that tsunamis can happen in a few minutes (5-20) after being triggered by earthquakes. Therefore, considering the limitation of time, there are steps that need to be taken, such as the identification of tsunami-prone areas by means of hazard and risk mapping, socialization of preventive measures for example to persuade people to stay away from risky areas, an increase in public awareness, and improvement and development of early warning systems for all kinds of hazards, especially earthquakes and tsunamis” (Kalla 2003:6).

In one of the conference papers in August 2003 entitled “General Guidelines for Mitigation of Natural Disaster in Coastal Areas and Small Islands: Special Focus on Tsunami,” it was clearly noted that around 60% of cities/towns (290 out of 490 cities/towns) are situated in earthquake-prone regions (page 195) and the vast majority of these cities are potential “targets” for tsunamis. It was added that, in order to mitigate

tsunami risks, there was a need for the integration of three approaches: integrated coastal zone management, integrated fisheries management, and integrated coastal hazard management.

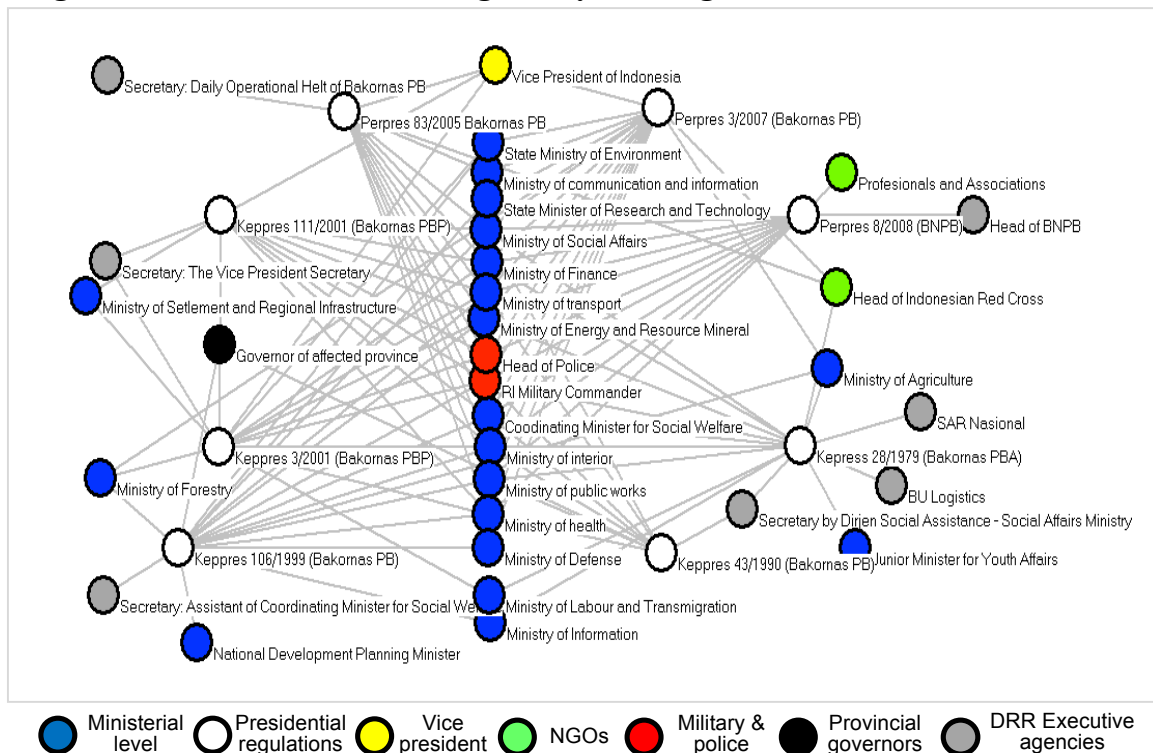
Responding to this, in the second last paragraph of his remarks, Mr. Kalla suggested that “On this occasion, I ask you to increase our attention to the efforts to undertake prevention and disaster mitigation, not only by talking, but also by doing. On the basis of all the experiences we have in this country and abroad, we can draw lessons for the future.” With this statement, it was clear that the political will was there for an idea that had not been translated into the existing structure of government during that period.

How did local policymakers see the problems during this period? In a reflection on an earthquake event that scaled between VII-VIII MMI¹³ on 4th June, 2000, in Bengkulu Province (in Sumatra, Indonesia) and that killed 93 people and caused 3,339 houses/buildings collapsed (not including a total of 13,756 houses heavily damaged and 29,090 houses with medium-light damage), the Bengkulu governor asserted the root causes of the damage and losses: “The shifts from wooden and bamboo house structures to masonry, while the collapsed masonry was due to the quality of the materials, the quality of joint elements of house structures such as beam-columns; each element moved not according to a single mass acceleration, and there was no stiffness in the houses; most of the buildings are situated by the fault lines of earthquakes” (Hasan 2003: 241-249). In the last reflection of the paper, especially on how provincial policy would respond to the situation, he maintained that mitigation and risk reduction measures could make structures earthquake-proof by going back to the previous building/housing patterns (wooden and bamboo structures including the use of aluminum roofs), as well as no longer building houses exactly at already recognized earthquake/fault lines or on unstable areas (hence the recognition of land use policy design, monitoring, and enforcement; in line with HFA Priority 4th); the need for new risk analysis and mapping of earthquake risks including seismic zoning in the whole province (Hyogo Priority 2nd); increasing the practical knowledge on post-disaster response to the whole society as well as recognition and greater appreciation of the embedded mitigation measures in the existing local knowledge and technology such as wooden and bamboo structures (Hyogo Priority 3rd). Such awareness and vision of risk management in many instances was unfortunately not often found in the regions where recent disasters took place. However, before Disaster Management Law 24/2007, there were hardly any policy instruments available that enabled actors with “good political will” to clearly change the knowledge into action.

Figure 1 shows the network of regulation of disaster management and the organizational ties over the period 1979-2008. Every dot represents either a regulation or an organization. The analysis is based on six different regulations and the organizational ties required by each regulation. In this analysis, qualitative explanation of the graph is important because of the interest in looking at the actors and forms of governance utilized in each period.

Apparently, the Ministry of Interior and the Military Commander have the highest connected node as they existed in all regimes of the Bakornas (National Coordinating Council) system from 1979-2007, as well as after the reform. This obviously reflects the discourse in the public where the military are still seen as an important group even after the reform, given the limitation of logistical resources within civil organizations. The figure also suggests that the Ministry of Interior is always involved in the business of disaster risk management in Indonesia. In fact, the minister is key to successful adoption of national DRR regulation into local DRR regulation.

Figure 1: Illustration of DRM Regulatory and Organizational Network 1979-2007



Source: Author. Data is coded from regulation on Bakornas 1979, 1990, 1999, 2001, 2005, 2007 and regulation on BNPB 2008.

The Ministry of Social Affairs and the Coordinating Ministry of Social Affairs as well as the Ministry of Energy and Mineral Resource are important in the disaster management system in Indonesia. The Ministry of Social Affairs used to be the long-term leader in the early form of Bakornas in 1979 and its membership in Bakornas was consistent; the Coordinating Ministry of Social Welfare took over the leadership quite a few times before it was taken under the remit of the vice president’s office in 2001. The importance of the Ministry of Energy and Mineral Resources was due to its control of the Geological Services and Volcanological Survey since the 1970s. The involvement of the Ministry of Forestry in the Bakornas system was notable since 1999 owing to the forest fire problems during the El Nino year of 1997/8. The Ministry of Public Works

contributes to the system through its dual roles in the disaster management system, such as providing logistical services for post-disaster intervention such as rehabilitation and reconstruction as well as its roles in mitigation and spatial planning. The Ministry of Finance has good ties to the system because of its roles in providing support to it.

The involvement of the Indonesian Red Cross in the system started with the establishment of Bakornas in 1979. However, it disappeared in 1990-2001 regulation and re-appeared again in 2005. The inclusion of civil society in the structure formally started just after the reform in 2007. One of the recent surprises found during this research was that the current government tends to work outside the existing institutional pathways, and not always with good reason. For instance, in Figure 1, the Coordinating Ministry of Social Welfare can be seen to be involved during the last 28 years and was the host of Bakornas during the 1990s. However, in early 2010, suddenly Presidential Instruction No. 1 2010 was issued to accelerate the implementation of National Development Priority 2010. The instruction simply neglected the structure under reform by putting disaster risk reduction under the remit of the Coordinating Ministry of Economic Affairs (the acceleration of the implementation of National Development Priority 2010). This shift of policy went unnoticed among the public and the professional community. However, this needs further investigation, especially in terms of how such a change happened and whether the influence of politics may have outweighed the need for professionalism, especially in recruiting experts who have prescribed such ignorance in policy making.

One may argue that, even without the Bakornas system in 1979, the response quality might have always been the same because somehow the government would always respond (significantly or not) to disaster events and because many people (including high level decision makers such as ministers) still subscribe to the perception of disasters and catastrophes as a form of divine intervention and punishment (see Haynes et. al. 2010), so the government would barely change its disaster management strategy in substance.

Disaster Management Reform

Many agreed, especially the reformists, that the main reason for reform, including establishment of a new disaster management law, is that the old structures that had been preserved since 1979, such as the National Disaster Management Council (Bakornas) and the Satkorlak (Provincial Council on Disaster Management), as well as city/district disaster management councils (Satlak), had been extremely ineffective in dealing with not only future disaster risks but also disaster responses in the past. These old structures almost always became active when emergencies took place and the government was always caught by surprise by natural hazards.

One can rightly claim that the old structure added very little value to reduce disaster risk. *De facto*, the Bakornas system made very limited efforts in mitigation, risk

reduction, and disaster management planning in systematic ways, a point that was clearly stated in the draft academic paper 2005 version that produced by the Indonesian Society for Disaster Management.

The energy for change was finally generated by the disasters of 2004-2006. Some of the visions for disaster risk reduction stipulated in the Hyogo Declaration and Hyogo Framework for Action have been borrowed in the Disaster Management Law 24/2007. However, the term “Disaster Management”, which has been considered as “old” and often signals a reactive-oriented paradigm, is still in use after the reform to encompass the whole aspect of disaster risk reduction as stipulated by the HFA. Nonetheless, this was an achievement as some of the drafters and negotiators argued that “it was difficult for the legislators to opt for risk reduction-oriented terms, as suggested in one of the drafts, so instead they ended up keeping the term “disaster management.”¹⁴

Figure 2 is the design of the disaster management system in Indonesia after the reform combining actual compliance with the Hyogo Framework for Action. The National Disaster Management Agency superseded the *Bakornas* secretariat. At the provincial and district levels, both *Satkorlak* and *Satlak* have been replaced by a Local Disaster Management Agency. At the national level, there is a National DRR platform, which is indeed a predecessor of a multi-stakeholder forum formed in 2005 with the purpose of advocacy for the drafting of the disaster management law legitimized by HFA.

At all levels, the legislative agency should play roles for not only bill drafting and DRR budgeting but also for monitoring the implementation of the law. The national legislative body used its initiative rights for drafting the disaster management law, but it was merely as a response to the call from non-state actors to create the law in 2005. Such initiative rights have seldom been used by Indonesian legislators (Pujiono 2005). The legislative response to the call for reform was partly conditioned by large-scale disasters, which affected the national budget during 2005-2007.

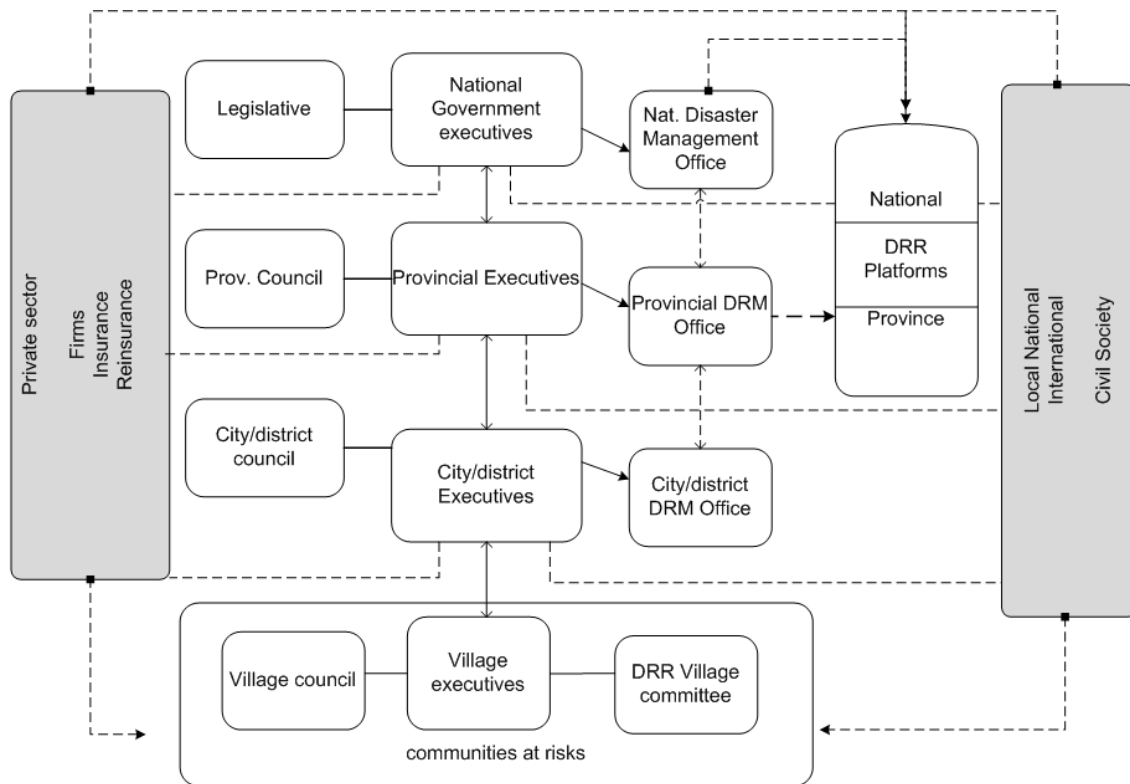
Control and monitoring of the quality of disaster risk reduction may come from civil society organizations (as recognized in Figure 2) and the media. At the local level, especially at the provincial level, a similar structure is used. A provincial platform is seen as the key to sustain the efforts in risk reduction. The very idea of such a platform is rooted in the Hyogo Framework for Action (Priority 1.4) and this is an ideal structure that, when it is expected to materialize in 33 provinces, needs a very large policy demand. In fact, the DRR National Platform has not been really functioning regularly as it is designed. In the provinces, the DRR platform can only be active where there are extra-government initiatives from either international NGOs or a United Nations agencies actively working in DRR.

At the district level, a similar structure (in practice) is utilized without requiring a DRR platform. The disaster risk management structure recognized the roles of civil society organizations as well as the need for a strong partnership with private

organizations. The next sections will show how such an “ideal” structure is made operational in the real world.

The National Disaster Management Agency (or BNPB - see its structure in Annex 2) reports directly to the President of Indonesia, but is not (yet) a member of the cabinet. There are also discussions whether the agency needs to be part of the cabinet in order to give greater power as Indonesian has experienced many more disasters occur during the past six years¹⁵. However, there has been no study of whether it should be part of the cabinet to increase its legitimacy and power, as is the case in some countries where disaster risks are very high and persistent, such as Sri Lanka¹⁶, New Zealand¹⁷, and Bangladesh¹⁸.

Figure 2: Indonesian Disaster Management System



Discussion

From the 1930s till the 1970s, there had been very little progress made in disaster risk management policy. Even though civil society organizations have been recognized since 1946, such recognition had been barely implemented for political reasons. Thus, politics matters because Indonesia experienced three historical phases of authoritarian regimes. During these periods, military power either was superior or was considered to be superior to civil governmental organizations, such as disaster management committees in the

1960s-1970s, because disaster may have been seen as an agent that could create instability in the territory.

However, *de facto*, the emerging roles of multilateral actors since the 1970s-1990s brought new insights into the practice of disaster management in Indonesia. Unfortunately, there is barely any study of the roles of United Nations Disaster Relief Coordinator (UNDRO) during the 1970s. In the second half of the 1980s, UNDRO supported “institution building” for disaster management systems in Indonesia. *Bakornas* failed to perform following the eruption of the Galunggung stratovolcano in West Java in 1982. Because of this, UNDRO later joined with the United Nations Development Programme (UNDP) and other international agencies, creating the Indonesian Disaster Management Center. Creative investment in human resource development on mitigation and preparedness was undertaken. This was achieved by investing in human resources for the Ministry of Social Affairs (the host of *Bakornas* secretariat 1979-1990), including for some relevant ministry staff seconded to the center, and conducting selected hazard research led by national experts in 1986. The output from the multidisciplinary research on disaster mitigation was planned to be integrated with the Medium-Term National Development Plan (also known as *Pelita*) 1987-1992 (Wong 1986). Such processes took place in 1986-1987, the same year in which the IDNDR was formally declared to begin.

However, the technically sound approach in capacity building had been disadvantaged by the unexpected change in the macro structure, especially when the president changed the host of *Bakornas* from the Ministry of Social Affairs to the Coordinating Ministry of Social Welfare in 1990. There is a lack of information regarding what happened with the trained individuals and their career building in the field. Nevertheless, it was clear that a change in policy, even with a good reason to shift from “natural disaster” stipulated in 1979 towards “disaster” in general (to regain command over the non-natural ones) in 1990, and to place such a mandate under a coordinating minister, in theory, might promote multi-agency efforts. Such a change was mainly a response to the IDNDR movement. However, unexpected organizational (or leadership) change from the Ministry of Social Affairs to the Coordinating Ministry of Social Affairs had encouraged discontinuity of human resources, organizational and institutional building, as the new ministerial host started human resource development from scratch, which caused the 1980s’ Indonesian Disaster Management Center to become irrelevant.

The “sudden” change of disaster management policy in Indonesia in 1979 is best explained as the impact of discursive change made through national-international interactions. The persistence of the old disaster management policy before 1979 was due to the previous fatalistic paradigm on disaster going unchallenged. However, in principle, disaster management institutions in Indonesia did not change significantly from the 1960s until 1990. This was a long period when the disaster management discourse was embedded in *ad hoc* structures and the actions were reactive responses.

The legacy of the Dutch colonial government can be traced until the recent past. Another explanation could be that the DRR discourse during 1970s-1990 simply took place in the context where information, communication and telecommunication (ICT) infrastructures were not as advanced as they are today. Neither superficial nor substantive change occurs in isolation. Instead, it occurs as a result of national-international interactions facilitated by the context of when and where (the level of) such interactions take place. Recent changes in Indonesia in 2007 disaster management policy were due to discursive changes at the global level coupled with large-scale disasters in Indonesia during the last ten years. Therefore, the disaster management policy reform in Indonesia has been the result of a dual process: the dynamic context in which recurrent catastrophes provide opportunities for the (domestic actors inside and outside of) government to review its existing policy combined by international processes and platforms such as the bilateral and multilateral aid institutions that encourage the government and the non-state actors in general to change.

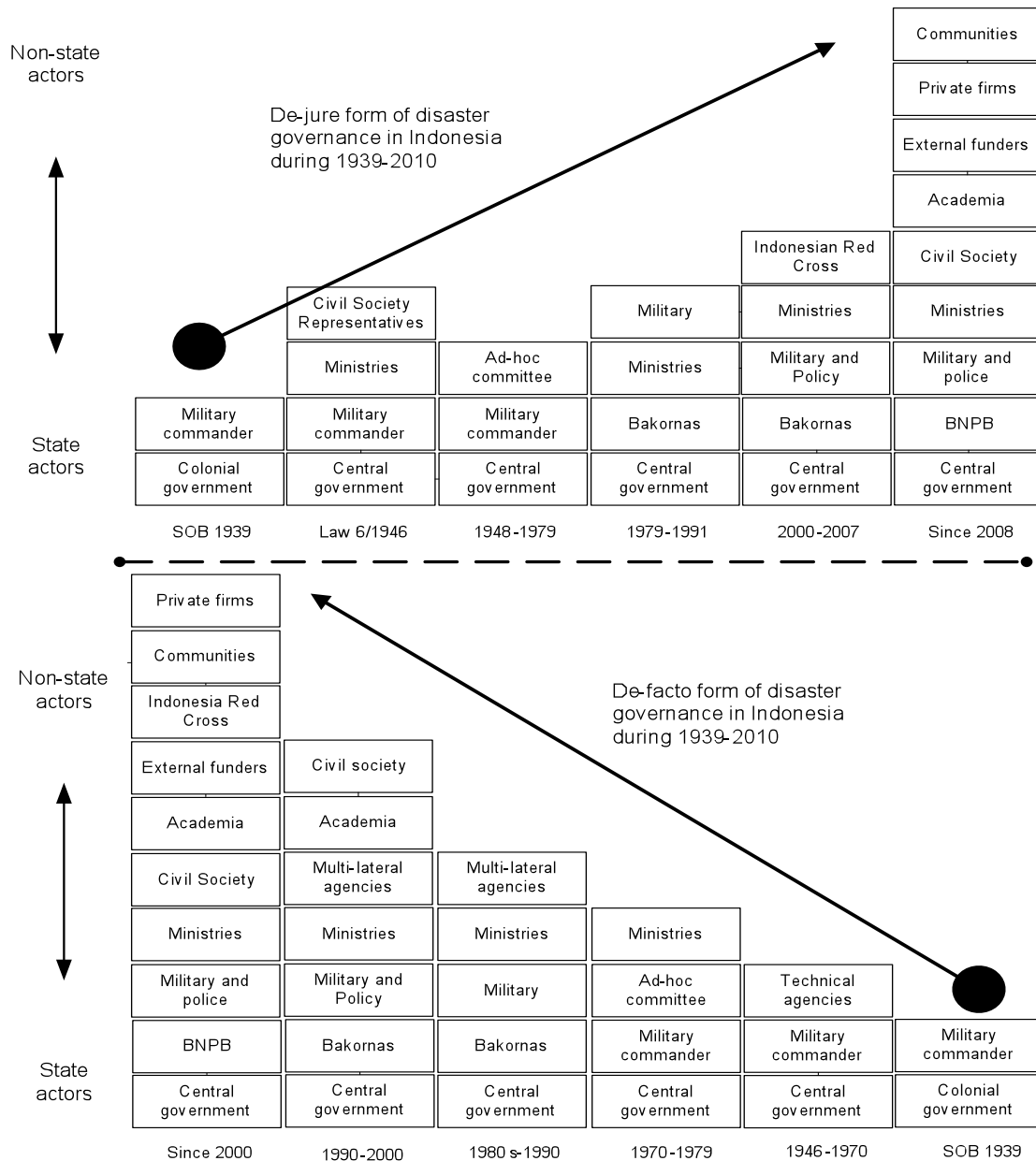
The New Order of Indonesia brought political stability during the period from the 1970s to 1990. Thus, later on, manmade disasters such as conflict and civil war were not considered major issues because the New Order regime was coercive in silencing sources of civil society power and rebellions that might challenge the government's authority. The only factor that could not be fully controlled was the element of surprise of natural disasters. This was one explanation for the New Order regime simply correcting the 1960s disaster management policy by making the ad hoc committees into a single more stable entity, namely, the National Coordinating Council for Natural Disaster Management, in 1979, which lasted until 1990.

Catastrophes during the 1990s did not bring change to the national disaster management system. One example was the first declaration of *national disaster* status after the Flores tsunami in 1992—which, for the first time (at least based on all accessible formal documents) since the formation of the National Coordinating Council in 1979—did not actually trigger any disaster management policy change at either a local or national level.

Disaster management policy reform that occurred in 2007 was not fully initiated by the formal institutions and policymakers. The reform itself has actually been a result of complex processes involving quite diverse actors within civil society and non-stakeholder actors' (see BNPB-UNDPa,c 2009) initiatives to call for the legislative agency to exercise power. The reform arose from a complex set of networks that transacted new ideas, information, and knowledge back and forth from local to international levels (Lassa 2011). This is well documented in some publications. Pujiono (2005), for instance, documented 39 meetings, many of them at the national level, from only 11 Feb-16 June, 2005, which involved international actors, civil society, the media, and individuals from non-governmental organizations (Parlan, Suratman, and Astuti 2007).

Figure 3 shows that civil society organizations and other non state actors now enjoy co-steering roles in the disaster risk reduction. The National Action Plan 2006-2009 was formally endorsed by the Ministry of Development Planning (*Bappenas*) with the support of the UNDP, and provides some interesting insights. The document provides important information regarding the involvement of multi-stakeholder efforts such as United Nations organizations, INGOs, international donors, university/research institutes, media as well as government institutions such as the transitional *Bakornas*, Ministry of Public Work, Ministry of Education, and Ministry of Interior.

Figure 3: Trends in Indonesian DRR Stakeholders



UN agencies and INGOs supported civil society advocacy under the lead of MPBI (see also BNPB-UNDPa 2009:12-13) to carry out “exhaustive” (see Pujiono 2005) consultation processes with international partners, politicians, national legislators, and government, especially Bakornas and civil society at large. Consultation processes with international actors were known as the Convergence Group, which was later supported by UNDP to form a working group for a background academic paper for law drafting. The Working Group members were all international organizations such as the UNICEF (United Nations Children’s Fund), CARDI (Consortium for Assistance and Recovery towards Development in *Indonesia*), ECHO (European Commission Humanitarian Aid department), OCHA (Coordination of Humanitarian Affairs), and IFRC (International Federation of the Red Cross). International aid interests have been successfully accommodated in the law, which was later enforced through a specific regulation, namely, Government Regulation 21/2008 on International Cooperation in Disaster Management (see BNPB-UNDPa 2009, p.13).

Some positive outcomes of the international and non-state actors’ involvement in the drafting of the law lie in the details of the DM Law document. The law recognizes the government’s responsibility to: (a) reduce disaster risks and integrate risk reduction in development programs; (b) protect people from disasters; (c) guarantee provision of rights of people affected and displaced by disasters according to minimum standards; (d) support recovery from the impact of disasters; (e) allocate budgets for disaster management in the country’s Annual Development Budget; (f) allocate contingency funds for disaster response, and (g) provide authentic and credible documentation of hazards and impact of disasters.

Reflection and Conclusion

In regards to the question of how DRR policy changed, from the anthropological perspective, Hoffman (1999:304) argues that the variables for change are the size (magnitude of disaster, population mass, and amount of damage), time, and the thicknesses of structures of cultural institutions (such as norms, customs, traditions). Large disasters such as the Flores tsunami in 1992 and the Indian Ocean tsunami in 2004 could be seen by ordinary people, including politicians and policymakers, as events beyond their comprehension, which could contradict Hoffman’s (1999) idea because the dramatic effects of the events can convey the wrong messages to the people in power. Such catastrophes are simply beyond their imagination and control. The only factors that could help them cope with such a situation are the institutions closest to them, such as religion and culture.

Repeated large catastrophic events may reinforce the belief that disasters arise from God’s punishment because “immorality causes disasters,” as the Minister of Information and Communication recently explained to the people of Padang (West Sumatra Province)

following the devastating earthquake there on 30 September, 2009.¹⁹ The ministry held a position on the National Coordination Body for Disaster Management (Bakornas) in 2005 and 2007 (see Figure 1).

The historical overview in Section 3 regarding anti-colonialism in Banten following the Krakatau eruption and its associated tsunami (Winchester 2003:334) was fueled by reasoning regarding divine punishment to the non-believing (colonial) government. Recent national disaster events such as the Merapi Volcanic eruption (26 October-19 November 2010) caused more than 200 casualties and more than 350,000 displaced people (Forum PRB 2010). Cultural explanation from Javanese cosmology has been a 'coping mechanism' for the local people in Yogyakarta. Dove (2010, p.122) describes the local communities' views on the cause of the Yogyakarta earthquake, which was "seen as a divine judgment on those holding the reins of political power". Schlehe (2010, p.116) also noted that the earthquake in 2006 in Yogyakarta has put pressure on the Sultan of Yogyakarta and the President of the Republic, Susilo Bambang Yudhoyono, because "the leaders were seen as lacks blessing and legitimization from divine power".

The bigger the scale of an event that goes beyond the people's understanding of the natural processes, the more difficult for disaster risk reduction reform, especially when the local institutions are weak (e.g. endemic corruption). This causes difficulties in encouraging rational and science driven policy measures (Lavigne et al. 2008) for volcano mitigation and post disaster management and this leads to the "pull" and "push" factor in disaster risk reduction policy reform. The pull factors can be considered as constraints in the present reform as competing informal institutions, which are also legitimate stakeholders in disaster risk reduction that may facilitate enabling or disabling conditions for actual risk reduction. The push factors can be seen as initiatives from outside government and informal institutions (such as traditional institutions).

The disaster risk management reform process in Indonesia is not unique in the sense that similar efforts have occurred in other Indian Ocean countries such as Sri Lanka (see www.srilankanparliamentonnaturaldisasters.org) in 2005, as well as India in 2005 (www.nidm.gov.in/). One of the driving forces behind the reform was a form of global disaster risk governance, such as national compliance with the Hyogo Declaration as voluntarily endorsed by Indonesia together with 168 countries. As the Hyogo Framework for Action (HFA) suggested, disaster legislation is seen as the foundation that provides a strong basis for planning and directing of the whole spectrum of disaster risk reduction. The BNPB (National Disaster Management Agency) admitted that the process of reform is "based on international policy direction" (BNPB-UNDP 2009a, p.9).

Therefore, the change in the disaster management policy is shaped by a dual process. First is the risk context where catastrophes either provide legitimacy for or push the government to evaluate its disaster risk management strategy with some sort of "anticipated initiatives" coming from outside government at the national level. Second, the international processes such as the IDNDR in the 1990s and later the International

Strategy for Disaster Reduction (ISDR) era, which started in 2000, have facilitated discursive change. For example, in the Asian context, the disaster management policy discourse has been formally channeled through the Asian Disaster Reduction Centre (ADRC), which was established in 1998 and Indonesia has been a member state together with 28 countries (<http://www.adrc.asia>). The ADRC's annual conference has served as a regional platform where the member states report their progress of disaster risk reduction on an annual basis since 1998. The IDNDR was considered a success in its pioneering roles at the international level to facilitate the establishment of 130 national level disaster management committees/focal points (van Niekerk 2005).

It is an empirical fact that IDNDR itself emerged as a soft institution that encouraged countries to move to reduce their disaster risks. The HFA 2005–2015 demands for new institutional arrangements including attempts at institutional reforms in its 168 member states to be able to reduce their overall disaster risk. HFA in fact turned out to be a global disaster risk governance mechanism that encourages political interest in reducing disaster risk. Recent data indicates that during 2009–2011, at least 82 countries or territories were willing to provide interim report concerning progress of disaster risk reduction (UNISDR 2011).

This paper concludes that there is enough evidence that DRR policy change in Indonesia is a dual process of local and international interaction. There is a shift from government as the dominant governing power for DRR towards more hybrid actors comprising government, civil society, international organizations, multilateral organizations, private firms and academia that collectively form disaster risk governance structure with less structural hierarchy. In this context, what is needed is “a more cooperative state” (Mayntz 2003) to acknowledge the power of non-state actors. The evidence of a cooperative state is also demonstrated in the endorsement of Government Regulation 23/2008 regarding Roles of International Agency and INGOs in disaster risk reduction in Indonesia.

There should be an in-depth investigation concerning the roles of the macro political situation in the (lack of) change of DRR policy over time. Will the future disaster policy reform be driven by domestic and home grown demands for change without external drivers? What would happen if the evolution of Indonesia politics required strong opposition parties that act as catalyst for policy change? Further investigation should be done, especially a detailed analysis of how disaster risk policy making processes during 2005-2007—including contestations of ideas and how different actors build their own legitimacy. What does that mean in the actual risk reduction during the first five years of reform at both the national level and local level, especially in the complexity of decentralization Indonesia today? What can be learnt from local level DRR reform processes? In addition, further investigation in other developing countries is necessary.

Notes

1. See Indonesian Map via CIA Websites: <https://www.cia.gov/library/publications/the-world-factbook/geos/id.html>. Accessed on Jan 24, 2012.
2. The original term was *bahaya*, which means danger. However, in today's language, "emergency" is used instead of "danger".
3. See Epistemic Cultures are "cultures that create and warrant knowledge" and according to Knorr-Cetina (1999). "the premier knowledge institution throughout the world is, still, science." This means that science only one out of many the knowledge institutions available. Traditions and religion can partially be other type of knowledge institutions. To the author's knowledge, no study available regarding the epistemic culture within the Geological Agency during and after the colonial era. But it can be said that epistemic culture in both colonial and post colonial era must be very different.
4. In its early period, Indonesia had a prime minster, but this system has no longer been in use for 60 years.
5. It does not mention flood mitigation but simply disaster.
6. See Presidential Decree - hereafter Keppres - No 54/1961 and 312/1965 and also Presidential Decree 256/1966.
7. Based on Keppres 256/1966.
8. The Cabinet Presidium Decision 14/U/Kep/1/1967.
9. In CRED database (www.emdat.be), it claims that there were about 1,000 deaths from the 1966 eruption. However, this figure cannot be confirmed by some sources related to volcano studies.
10. Lahar is an Indonesian term for a volcanic mudflow, which has become an internationally recognized term. Please consult http://www.geology.sdsu.edu/how_volcanoes_work/Lahars.html. Accessed on August 18, 2010.
11. During 1979, West Papua and Papua regions were in the same administrative unit of West Papua.
12. http://www.disaster.go.th/html/ricb/foreign/2006/acdm/background/acdm_tor.html. Accessed on June 2009.
13. MMI is known as the Modified Mercalli Intensity Scale, ranged I-XII, The lower scale is measured by the situation in which the earthquake is felt by people while the higher scale are based on observed damage of structures caused by an earthquake. Scale VII means "Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken" while Scale VIII means "Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures.

- Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.” See for more detail explanation is available from <http://earthquake.usgs.gov/learn/topics/mercalli.php>. Accessed on March 10, 2011.
14. Recurrent communication with Dr. Eko Paripurno and Mrs. Hening Parlan, some of the key experts behind the scenes who are part of the Indonesian Disaster Management Society.
 15. See <http://www.tribunnews.com/2010/11/07/komisi-viii-dpr-usulkan-bnpb-jadi-kementerian>. Accessed on Nov 10, 2010.
 16. Please consult <http://www.dmhr.gov.lk/english/index.php> Last accessed 15 June 2010.
 17. Ministry of Defense and Emergency Management at <http://www.civildefence.govt.nz/memwebsite.nsf>. Accessed on June 15, 2010.
 18. Please consult <http://www.dmb.gov.bd/>. Accessed on June 15, 2010.
 19. See the English version from the BBC: <http://news.bbc.co.uk/2/hi/asia-pacific/8384827.stm>. Accessed on June 16, 2010.

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