Comparing Cross-Sectoral Governance in Managing Post-Disaster in Indonesia *[1])

The case Study of Way Ela Dam bursts, Forest Fire in Sumatera, Kelud and Merapi Volcano Eruption and Acheh's Tsunami

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ABSTRACT

The cross-sector governance or interorganizational network in the emergency and post disaster stage is new area of study in public administration. As a vulnerable state, Indonesia has been trying to set up a cross-sectoral governance in delaing with disaster since 2007. By reviewing the documentary data of previous disaster, we try to compare the cross sectoral governance in managing the disaster victims. We found that Indonesia government implemented cross sectoral disaster governance in Acheh, Merapi and Kelud Volcano, and Way Ela Dam burst. The different disaster were happened in al around Indonesia created the different new model cross sectoral governance.

Keywords: governance, cross sectoral governance, emergency, disaster.

Introduction

With 17,000 islands and over 80,000 kilometers of coast, Indonesia is vulnerable to sea-level rise and myriad natural disasters. Floods are the most the common hazard, but the unpredictability and wide-spread devastation caused by earthquakes, tsunamis and volcanic eruptions make geological disasters much more threatening (www.giveasia.org). The World Bank has estimated that 40 percent of the country's population, or around 90 million people, are vulnerable to disasters **.**

On December 26 December 2004 earthquake occurred at 00:58:53 with an epicentre off the west coast of Sumatra, Indonesia. The event is known by the scientific community as the Sumatra–Andaman earthquake. An then, the May 2006 Java earthquake occurred at 05:54 local time on 27 May on the southern coast of the island of Java, around 20 km (12 mi) south-southeast of the Indonesian city of Yogyakarta.

Way Ela is a natural dam made in July 13, 2012 because of landslides that closed river stream in Negeri Lima village, Leyhitu sub-district, Central Maluku district, Maluku province. The size of the dam is 1,100 meters long, 300 meters wide, 215 meters high and 35

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meters deep. Many argue that the thickness of the dam is good enough. However, the fact showed that the thickness is not a guarantee. Due to the heavy rain, the dam completely broke at around 12:25pm local time on Thursday, July 25, 2013 and five minutes later about 19.8M m3 of water swiped Negeri Lima village which located about 2.25 KM from the dam.

The government through BNPB (National Disaster Management Office) and BPBDs (Provincial and District Disaster Management Offices) provided good facilitation and support to the affected people as soon as possible. The government needs to review again whether the dam construction is in accordance with the needs. Extreme weather / climate change should be taken into consideration. The government should find a way to relocate local communities who live too close to the danger zones. Every disaster creates the formal change of cross-sector organizational relationship, either in community, private sector or government. Change can be classified as primarily linked to formal responses (governments, legal interventions, amendment of organizational structures) and informal responses (individual groups, households, often occurring at very local levels) (Birkmann, 2008). Change and reorganization within and after disasters or perturbations are also two key factors when dealing with newer concepts of resilience linked to coupled social-ecological systems (Folke 2006, p. 257; Berkes et al.2003; Holling2003).

In this paper, we try to compare the cross-sector governance or interorganizational network in the emergency and post disaster stage, namely Way Ela Dam bursts, Forest Fire in Sumatera, Kelud and Merapi Volcano Eruption and Acheh's Tsunami. How do cross-sectoral governance in the those different setting disasters of Indonesia?

Theoretical Framework

In every earthquake or natural disaster, the role of government organization and private sectors seems to likely be network or cross-sector governance in order to help disater victims. By crosssector collaboration, we mean partnerships involving government, business, nonprofits and philanthropies, communities, and/or the public as a whole (Bryson, 2006). We assert that collaboration occurs in the midrange of how organizations work on public problems, including natural disaster (Crosby and Bryson 2005a, 17 – 18). Attaining successful community development or disaster victims rehabilitation requires collaboration among various actors and sectors as well as the participation of all stakeholders and individuals (Park and Park, 2009), good plan and monitoring in the case of Acheh's earthquake (Canny, 2005), a community based housing reconstruction program, the level of participation of community should be at the level of collaborate or empower (Ophiyandri, T.etal, 2008) and organizations to acknowledge their limitations in uncertain environment andencourage the participation of others in their networked search for viable strategies of action (Comfort, 2008). In Kobe, a communitybased reconstruction plan was successful in building more than 2,000 houses in two years because of the active participation of community members (Shawa and Goda, 2004).

Looking at Bryson, et al's (2006) work on cross sector organization, the author tries to replicate an organizing framework for categorizing the literature on collaborations, including sections on emergency conditions, process dimensions, structural and governance dimensions in the context of disaster management.

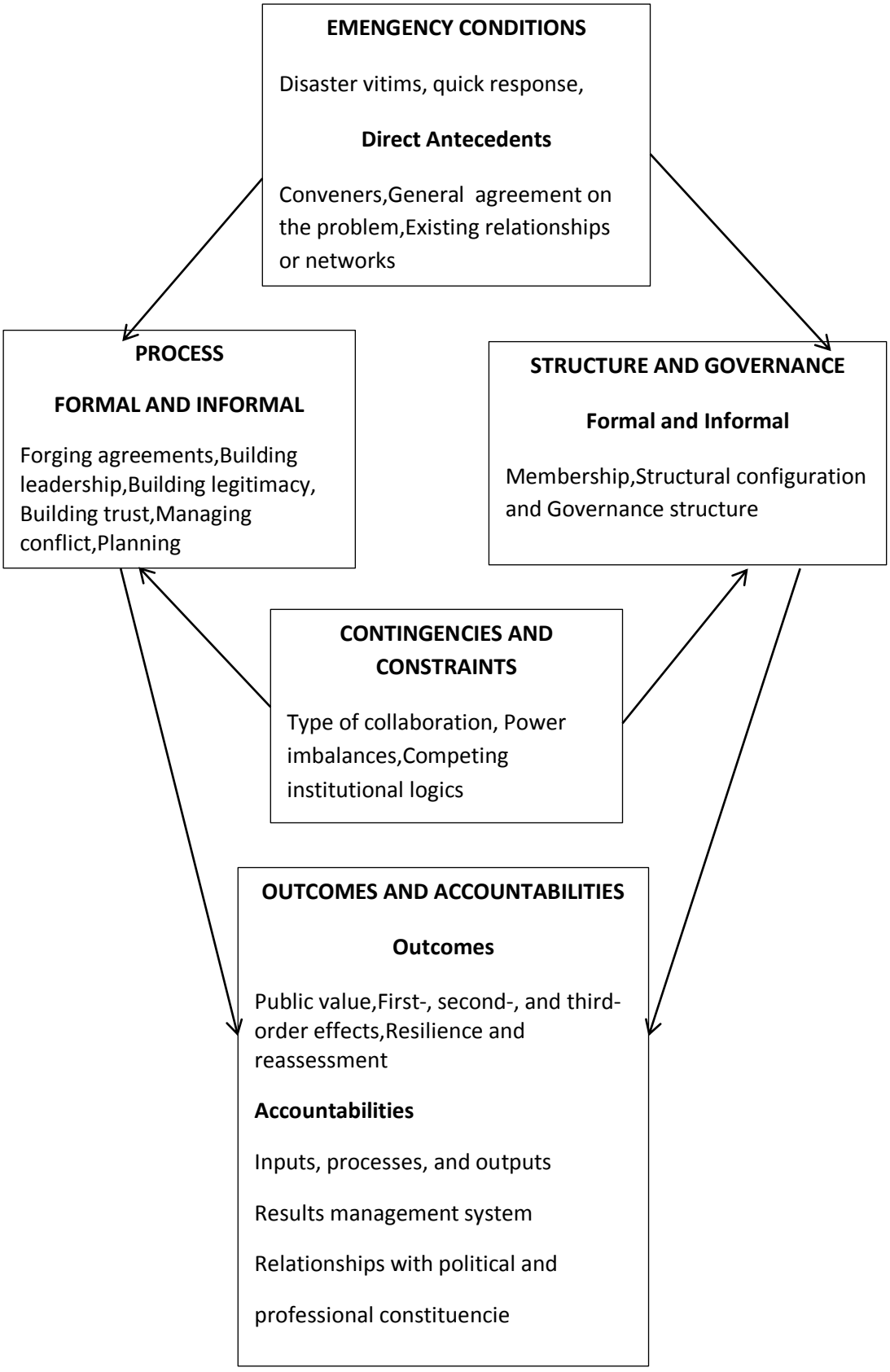

Fig.1. A Framework for Understanding Cross-Sector Collaborations

Source: John M . Bryson, John M, et al (2006) The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature, Public Administration Review • December Special Issue

Emengency Condition

Birkmann, et al's (2008) work on the impact of disaster on organizational change in Indonesia and Srilanka found that the change in organizational structures, such as the creation of Disaster Management Centre, and in social policy, leading to relocation or migration. The coordination of the reconstruction process after tsunami was managed by a newly created agency called Reconstruction and Rehabilitation Agency of Aceh and Nias (BRR) which was established by the President based on Government Regulation Substituting a Law No.2/2005. The BRR asked all 438 registered NGOs to submit activity reports with the agency. By mid-September 2005, a mere 128 reports had been submitted (BRR, 2005).

Process

We focus on six: forging initial agreements, building leadership, building legitimacy, building trust, managing conflict, and planning (Bryson, 2006). The initial agreement should start with the creation of new organization or mechanism dealing with emergency situation. Due to many organizations involved in helping disater victims, those actors or unit try to set up a potential leader or select legilimate leading organization. In case of Kobe, there were two consequences: an emerging sense of self-governance, and stronger sense of community solidarity (Tatsuki and Hayashi, 1999). Change and reorganization within and after disasters or perturbations are also two key factors when dealing with newer concepts of resilience linked to coupled social-ecological systems (Folke 2006, p. 257; Berkes et al.2003; Holling, 2003). In the next phase, cross-organizations needs the leading sector which guide dynamic problems. The role of leading sector would be likely sponsors and champions (Crosby and Bryson 2005a). Sponsors are individuals who have considerable prestige, authority, and access to resources they can use on behalf of the collaboration, even if they are not closely involved in the day-to-day collaborative work. Those roles encourage legitimacy and trust and managing conflict.

Structure and Governance

The strategic purpose of the network or partnership also appears to affect structure (Bryson, et al, 2006). Agranoff and McGuire (1998) make an important distinction between the strategic purposes of those networks, delineating policy-making and strategy-making networks from resource-exchange and project-based networks. In the context of disaster events, for example in Japan, there are hundreds of volunteers gathered from different parts of affected areas, such as the prefecture, city and local governments had their coordination centres as well (Shaw and Goda, 2004). In some places, there was cooperation withthe NGO networks, in some places they acted independently. Structure and governance of pre or post disaster could be networked among organizations concerning the victims needs. Making

network organizations works, they try to set up the structure and mechanism to coordinate each others. One organizations which has power to lead networking to arrange cooperation.

CONTINGENCIES AND CONSTRAINTS

When disaster coming, every organization try to lead operation without smoth cooperation with others, so the conflict amongts them take in places. Indeed, there are power imbalance in those organizations. However, there are power imbalances among collaborating partners as a source of mistrust and therefore a threat to effective collaboration (Huxham and Vagen, 2005). Important differences exist among partnerships formed for system-level planning (identifying and defining system problems and solutions), administrative activities (involving resource transactions, such as staff sharing), or service delivery (such as client referral agreements) (Bolland and Wilson 1994). Collaborations involving system-level planning activities are likely to involve the most negotiation, followed by collaborations focused on administrative-level partnerships and service delivery partnerships (Bryson, e al, 2006).

Research Method

This research is comparative study in nature trying to investigate the differences amongts the practice of governance at post disater in handling emergency events namely dam bursts, mount explotion and the biggest disaster of Tsunami. The data collected in this study is extracted and compiled from the previous study done by some reseachers before, content analysis of news reports, government documents, and after-action reports was conducted. The main goal of the content analysis was to find the performance of intergovernmental and interorganizational response to the catastrophic disasters. However, reseachers have collected primary data on Way Ela Dam bursts in Ambon between September-October 2014.

Finding and Analysis

Emergency Condition: Pushing Factors of New Governance

Comparing the different emergency situation and location of disaster, we found that all cases created the new governance in handling the problems. However, uncoordinated governance and a polycentric and multi-layered architecture which matches closely the decentralization system in Indonesia and would offer favourable conditions for multi-level work procedures and a coordination mechanism (Seng, 2012). Way Ela Dam burst has increased local and multi-layered organization since local government has been given discretion to resolve problems in local disaster.

The Volcanology and Geological Disaster Mitigation Center (PVMBG), as central governmen agency, conducted a field analysis and mitigation report following soil movement at 5 a.m. local time (3 a.m. Jakarta time) at Ulakhatu hill in Negeri Lima village, Leihitu

district, Central Maluku on July 13, 2012, which were not followed up the National Disaster Mitigation Agency (BNPB), the Maluku governor and the Central Maluku regent. Due to a lack of response, Surono again sent a field team on Oct. 18, 2012 to conduct a more detailed inspection. Early warning system runs well. When the dam was in critical condition one day before on Wednesday, July 24, 2013, warning alerts was sounded and government instructed local communities to go to the evacuation centers that have been provided. The government through BNPB (National Disaster Management Office) and BPBDs (Provincial and District Disaster Management Offices) provided good facilitation and support to the affected people as soon as possible. The governor led the emergency response and provided full support to the affected people. Preparedness trainings for floods have been conducted, therefore, local communities aware when evacuation should be started.

Meanwhile, in mount explotion emergency response, Indonesia has long experience. The early warning system at Merapi and Kelud is the same as at all volcanoes in Indonesia and is basedon the analysis of instrumental and visual observations. It comprises 4 alert levels: Level I indicates the activity of the volcano is in normal state, with no indication of increasing activity, although poisonous gases may threaten the area close to the vent or crater. Level II is set when visual and seismic data indicate that the activity is increasing. Level III is set when a trend of increasing unrest is continuing and there is concern that a dangerous eruption may occur. Level IV is set when the initial eruption starts (i.e., ash/vapor erupts which may lead to a larger and more dangerous eruption). The alert level is declared to the public through National Agency for Disaster Management (BNPB) and the local governments (Surono, et al, 2012).

In post-eruption of Kelud and Merapi mount, the current governance originated from coordinating architecture of disaster management. The National Disaster Management Agency (NDMA: or, in Indonesian, BAKORNAS/BNPB (Badan Koordinasi Nasional Penanggulangan Bencana/Badan Nasional PenanggulanganBencana – Indonesian National Coordinating Agency for Disaster Management/IndonesianNational Board for Disaster Management)) initiated in 1966, is a non-departmental body; its membership comprises up to 10 ministers and related governors. This agency's functions are to formulate, stipulate,and co-ordinate disaster management and itsactivities, pre-disaster, emergency response andpost-disaster activities. To implement disaster management duties in Province and District/Cityregions, Regional Disaster Management Agencies(Satkorlak-Satlak/BPBD in Indonesian) have been established (Mei and Lavigne, 2012). Traditional responses towards disasters can provide an acknowledgement of the complexity of human response and a better understanding of the community's point of view on the disaster management process (Mei and Lavigne, 2012).

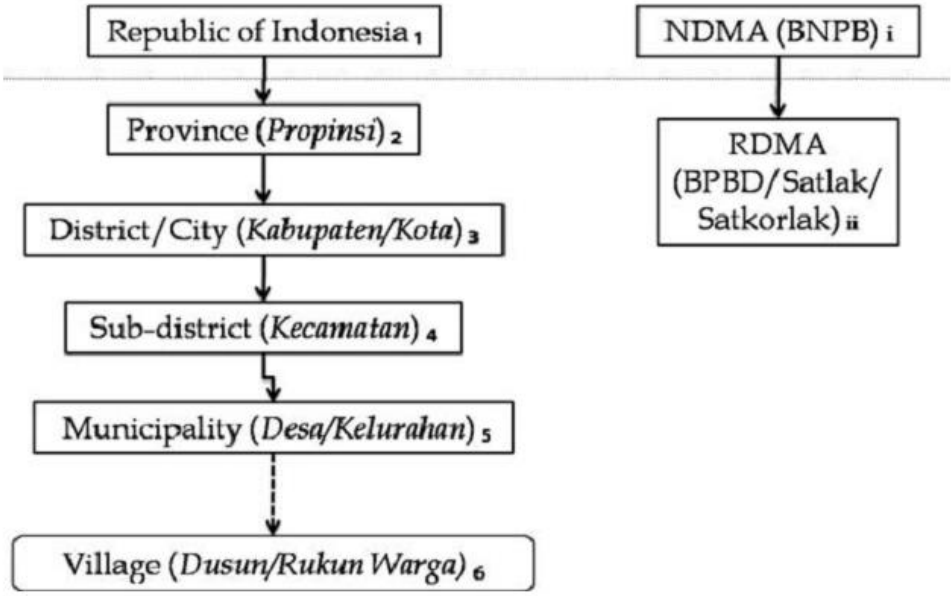

Fig 2. Administrative divisions (1 –6) and disaster management agency in Indonesia (i– ii)

Source: Mei, Estuning Tyas Wulan and Franck Lavigne (2012), Influence of the institutional and socio-economic context 2006 eruptions of the Merapi Volcano, Indonesia for responding to disasters: case study of the 1994, 2012; v. 361; p. 171-186 *Geological Society*, London, Special Publications

In the case of annual forest fire in Sumatera and Kalimantan, Sukrismanto, et (2011) found the coordination among the organizations involved in forest/land fire control has been inadequate so that management of forest/landfires is ineffective. The creation of National Disater Management Agency under Law No. 24/2007 is not clearly declared that forest fire as a disaster and accomodat the stakeholders of local government. The important implication of those regulations are limited budget and unclear local agency dealing with forest fire.

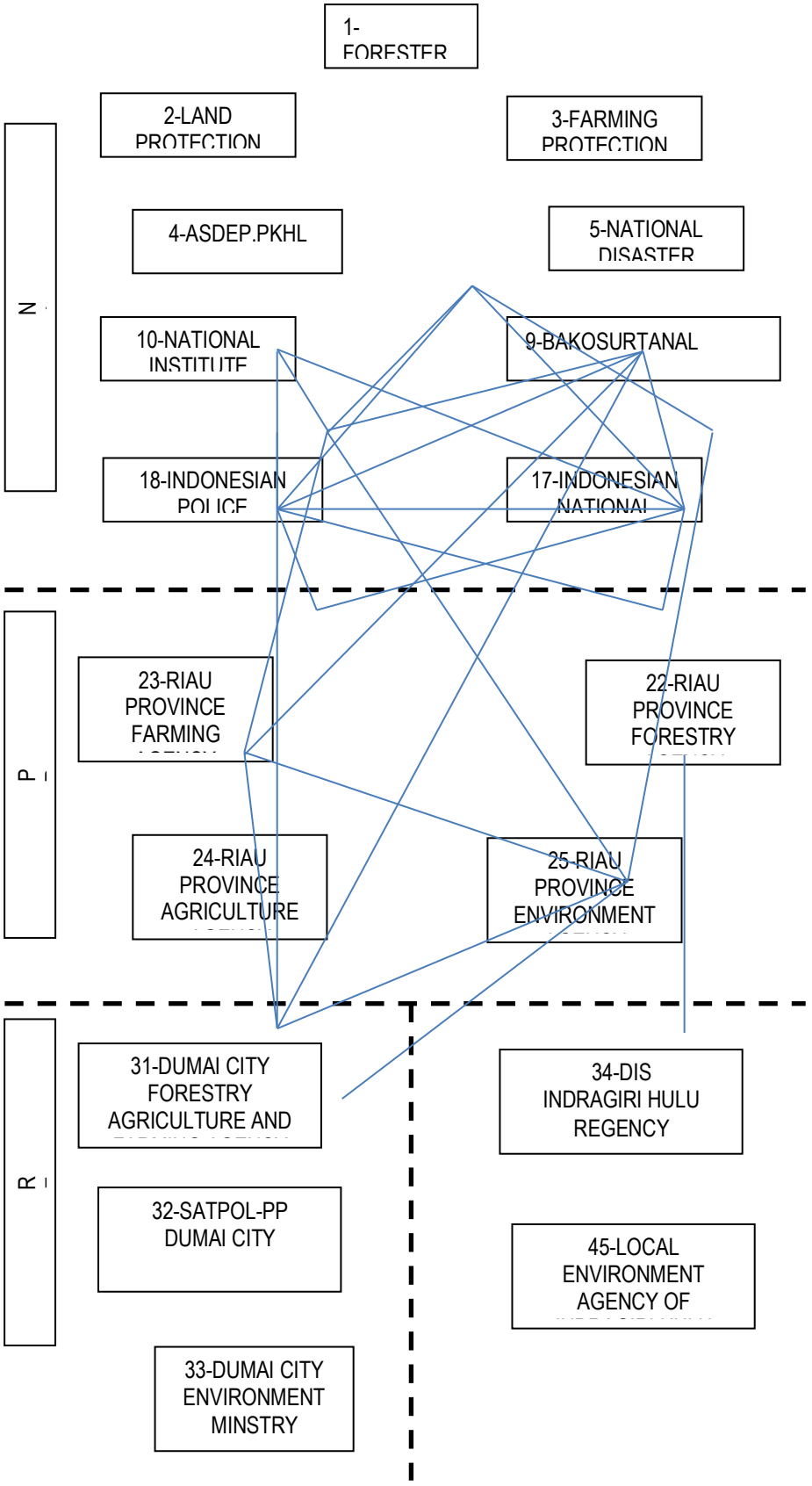

Fig.3. Inter-organizational relationships on the aspect of service delivery in Riau

Source: Sukrismanto, Erly (2011), Study on Interorganizational Relationships in the Organizing System of Forest/Land Fire Control in Indonesia, Jurnal Penelitian Hutan Tanaman,Vol.8 No. 3 Juli 169 - 177

In the case of Tsunami in Acheh, there were multilayered and actors involved in post disaster. However, a key problem in implementing a multi-hazard approach is institutional and organizational challenges (Seng, 2012), namely fragmented and dispersed and more time is needed to develop an integrated framework for the separate hazard EWSs; services are produced under different departments and there are challenges to bringing together the different products and services; the geographical occurrence of hazards and disasters; the lack of leadership and adequate resources to implement a multi-hazard framework approach in Indonesia.

Process: Learning Process

Analysing the governance process, we try to classify into initial agreements, building leadership, building legitimacy, building trust, managing conflict, and planning. Indonesia has long experience in handling mount explotion case. When the disater come, every organization engages in rescueing the victims. The situation will be likely chaos situation, in which no one organization to be a leader. Otherwise, in the country has long experience in handling disater, Indonesia, has the esthablished organizations. New stakeholders and policy communities often become involved in reconstruction or rehabilitation of affected regions and create through their needs, priorities, and agendaschanges that are unpredictable and this involvement of new actors is a significant feature of learning processes (Birkmann, et al,2008)

However, the post Merapi's mount eruption, the local governance and central governance has contingency plan which was not adequate to overcome the crisis, because the coverage area of the safety zone was smaller than the areas to be evacuated during the 2010 eruptive crisis (Mei, et, 2010). Therefore, the community try to help themselves by organizing some local organization, form example in crisis communication. The role of local associations was not only limited to aids distribution but also for crisis communication, as exemplified by the actions of Jalin Merapi, a local association supported by several NGOs working in Merapi's flanks. Jalin Merapi (Merapi Circle Information Networks) in the 2010 Merapi eruption can empower themselves through participation in providing, sharing, and verifying the information within their social network (Gultom and Joyce, 2012).

The second important factor in the post disaster complexity and dynamic situation is leadership, both formal and informal leader. Many organizations try to lead themselves without collaborating with another. As a result, the the feed back situation is likely chaos and uncoordinated functions amongts organizations. Disasters can catalyse structural and irreversible change by creating new conditions and relationships within environmental, socioeconomic and political structures, institutions and organizations (Birkmann, et al, 2008). On the another side, the disaster victims need to be help speedy and timely efficient. In the case of pos disaster of Yogyakarta and Central Java May 2006, leadership is another important factor in the capacity of local communities to respond (Bankoff, 2005). While leadership styles and qualities vary considerably, our experience suggests that local

leadership is often (although by no means universally) fairly strong, intelligent, responsible and honest with a real basis in popular trust (MacRae and Hodgkin, 2010). In Acheh and Srilanka, Birkmann, et all (2008) found that new stakeholders and policy communities often become involved in reconstruction or rehabilitation of affected regions and create through their needs, priorities, and agendas changes that are unpredictable and this involvement of new actors is a significant feature of learning processes.

Structure and Governance

The organizational implication of disaster on the current organizational practices is the change of structural configuration and design of decision-making system. The structural configuration seems to be the network organization and strategy-making networks from resource-exchange and project-based networks. For example, a national coordinating body for rehabilitation and reconstruction (BRR) in Aceh and Nias established new structures and roles of disaster management agency and development of national and local disaster management plan (Birkmann, et al, 2008). BRR was network organization in nature that coordinated many organizations. It is observed that several different management schemes have been adopted by the Indonesian government for the rehabilitation and reconstruction stages, depending on the type of disaster as well as casualties involved (Teguh, 2011). At local level, only a few provinces and districts have completed the Perda DM local regulation to allow the organizational (from author) transformation to take place (Seng, 2010). The current formal regulation formalizes the network-based organization could be seen as follows.

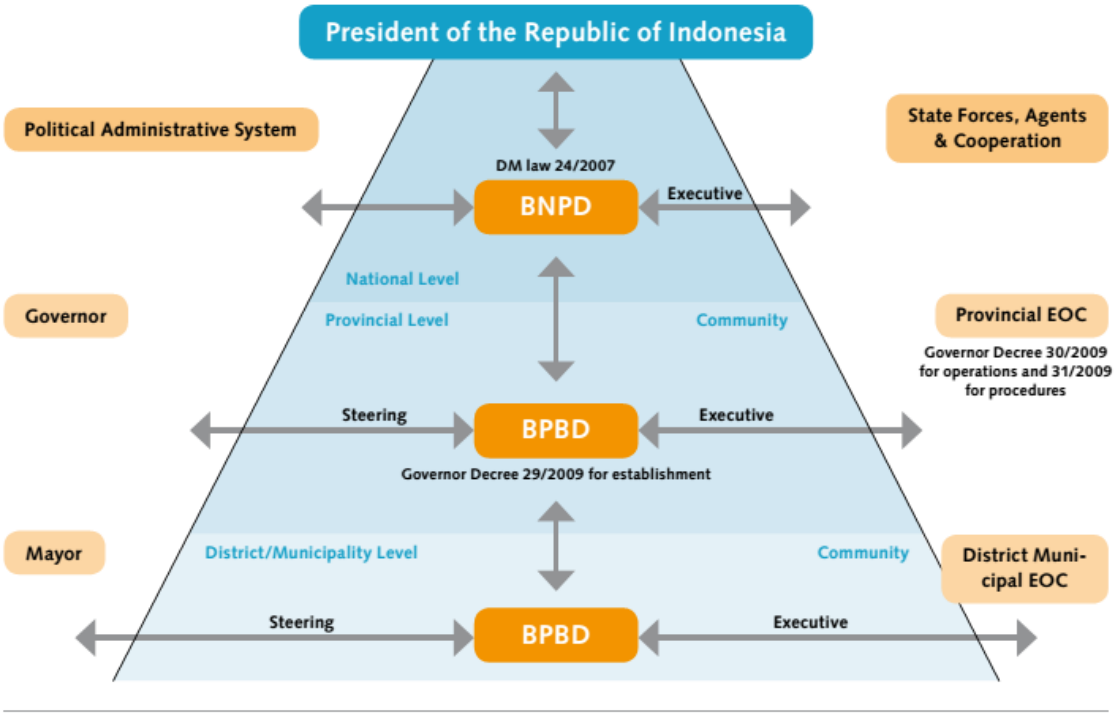

Fig.4. Regulation and Administrative System of Disaster Management in Indonesia

Source: Seng, Denis Chang (2012), The Role of Risk Governance, Multi-Institutional Arrangements and Polycentric Frameworks for a Resilient Tsumani Early Warning System in Indonesia, Dissertation, published at http://hss.ulb.uni-bonn.de/2010/2227/2227.htm

Since 1999, the Indonesian government has followed a policy of decentralization with both decision-making and funding being transferred to more than 30 provincial and over 400 district levels. This was reflected in the Disaster Management Law, passed in 2007, which requires the government to establish Disaster Management Agencies at national, provincial and district level. The National Disaster Management Agency – Badan Nasional Penanggulangan Bencana (BNPB) – was established in 2008. As a part of the decentralization effort, local disaster management agencies—BPBDs—have begun to be established in provinces and districts throughout the country. These provincial BPBDs are in a position to promote best practices among their respective districts and provide technical and operational support before, during, and after disasters occur within the province. However, often these local agencies do not have the technical knowledge or skills necessary to provide such support (www.giveasia.org).

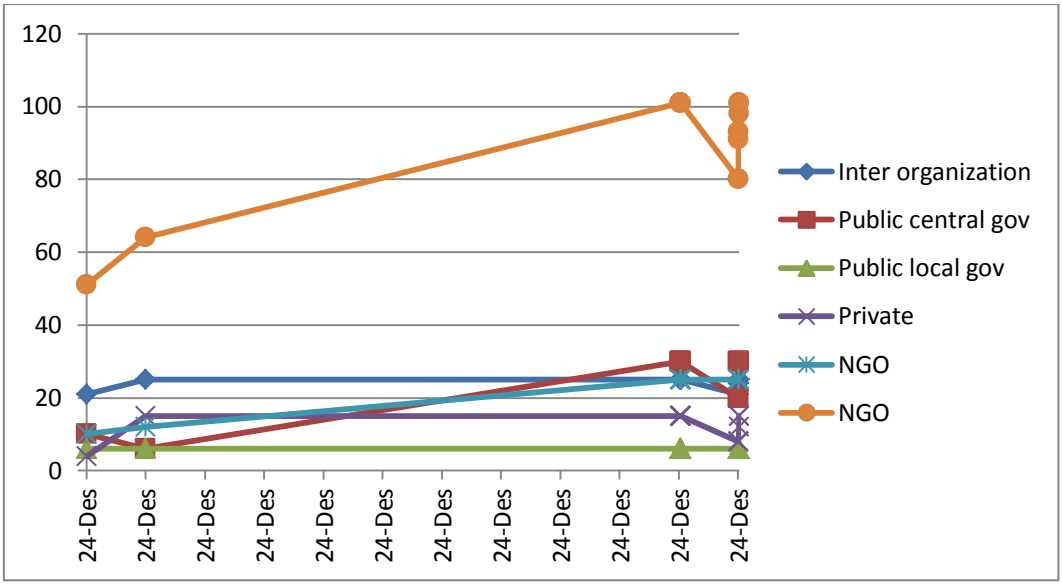

Fig 5. Actors involved in response to Acheh Earthquake, 24 Dec 2004, to 24 May 2005

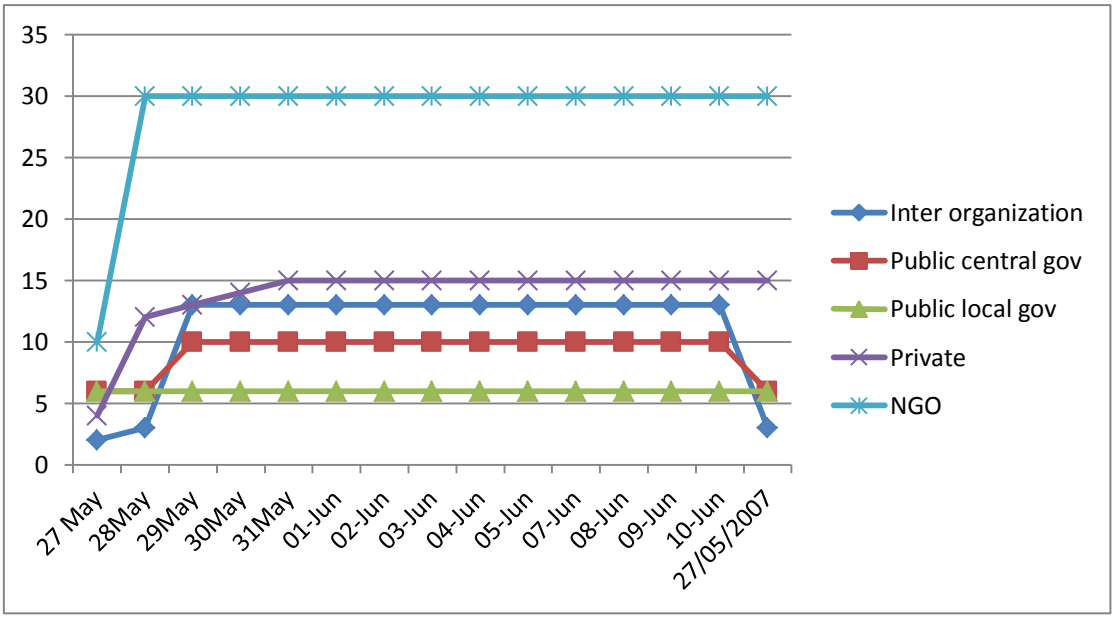

Fig 6. Actors involved in response to Java Earthquake, May 26, 2006, to 27 May 2007

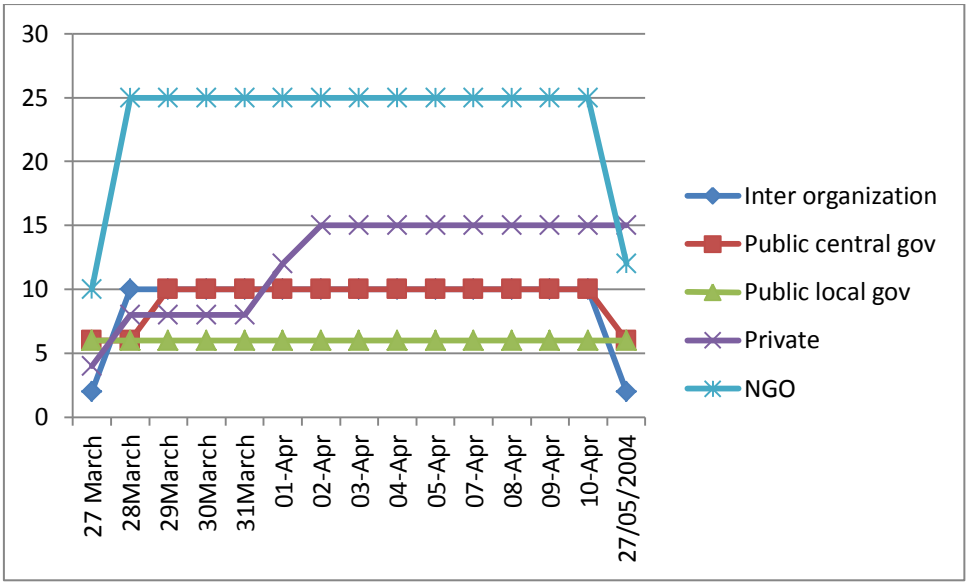

Fig 7. Actors involved in response to Merapi Volcano Eruption, March 27, 2010, to 27 May 2011

Table above shows that in Merapi eruption, organizations involved in rescueing the victims from either formal or informal organization such as central government, province, regency, districts, villages, non government organization, media, community grass root level organization. Then, on 26 May 2006, a cooperative network named Forum Merapi was initiated; it gathered local authorities from Sleman, Klaten, Magelang and Boyolali, theMVO, several local and international NGOs, academic institutions, and representatives of local communities (Mei and LAVIGNE , 2012). In Kelud volcano eruption 2014, the local government has since led the coordination of the emergency response. Coordination is led by the District Disaster Management Agency (BPBD). BPBD, with support of National Disaster Management Agency (BNPB), have set up a local cluster network to ensure that various sectors are covered. These are led by respective government departments and agencies and include search and rescue, health and psycho-social, food and nutrition, temporary shelter, structure and infrastructure recovery, water and sanitation, education, logistics and equipment . This post holds daily coordination meetings to mobilize resources from each of the provincial government agencies. Other actors involved in the response include Muhammadiyah Disaster Management Centre (MDMC), Yakkum Emergency Unit (YEU), Plan International, World Vision, Habitat for Humanity, PKPU, Catholic Relief Services (CRS) and the World Food Programme (WFP) Various technical government departments such as the National Search and Rescue Agency (BASARNAS), military and police have been working together with other stakeholders from community organizations, political parties, NGOs and PMI (IFRC, 2014) .

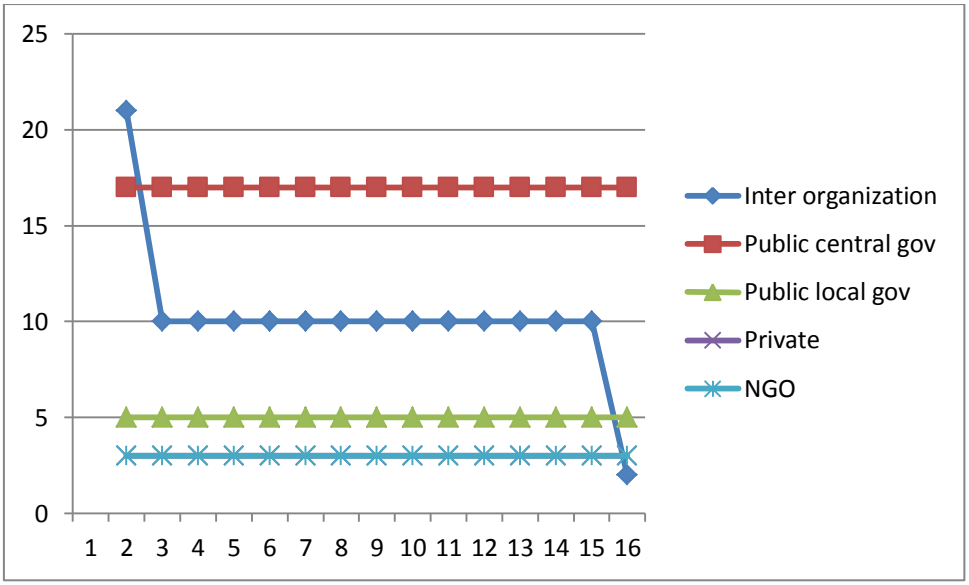

Fig 8. Actors involved in response to Forest Fire in Riau (16 days)

Twenty one organizations were from international-parish level organizations, and 30 organizations were from the central level and only 6 organizations from local governments involved in managing the Acheh post disaster. It is noteworthy that the dominant group is private organizations, with 25 organizations. Figure 5-8 depicts the number of organizations involved in disaster response operations of the different disaster for the one year or less period. Indonesia is well prepared for volcanic emergencies, with over 130 active volcanoes, and major recent eruptions at both Sinabung (on Sumatra) and Merapi or Kelud (on Java); a theme picked up both by the Indonesian press, and in social media posts

Outcomes and Accountabilities

The most problem in managing the emergency and contruction phase is accountability. Romzek (2000) offers the most comprehensive framework for analyzing types of accountability relationships, namely hierarchical, legal, professional and political. She notes that the difference between professional and political accountability is the source of the standard for performance. "Professional accountability systems are reflected in work arrangements that afford high degrees of autonomy to individuals who base their decision-making on internalized norms of appropriate practice" (2000, p. 26). Political accountability relationships afford managers the discretion or choice to be responsive to the concerns of key interest groups, such as elected officials, clientele groups, and the general public. In the Tsunami response, the coordination challenges were immense, particularly in the emergency phase in Aceh. A new factor was the fact that funding was not in short supply and the traditional lever of coordination through funding was not available to the government, large donors or the UN agencies (Lambert, B., & de la Maisonneuve, C. P. 2007). These challenges have been addressed in depth by Bennett et al (2006). They include poor coordination of assessments, poor quality of coordination meetings, a constant stream of visitors (to government agencies etc), the poor capacity of local government and insufficient communication with beneficiaries.

A regular documentation system will be developed, and country-level monthly reports will be prepared, which should include different issues, as decided by the core working group (Shaw, 2006). A tension between the requirements of INGOs in terms of transparency, accountability and administrative procedures and real urgent needs on the ground, especially during the emergency phase (MacRae and Hodgkin, 2010). Mechanisms for assessing whether recovery funds were well spent are often weak or missing. A potential solution is to adapt and apply the processes and protocols of performance auditing and performance measurement to recovery and reconstruction – identifying risks and controls, setting measurable targets, assessing whether sustainability and survivability goals are met (Labadie, J. R. (2008).

Discussion

Comparing the different setting organizations and its responses in emergency situation of disaster of Indonesia, we can find that cross-organization is very common practices took place in post disaster situation under the National Disaster Management Agency (BNPB) leadership. However, the BPPD (Local Disaster Management Agency) has tried to lead emergency operation in Kelud volcano eruption and Merapi volcano eruption and Way Ela Damp burst with the different capacity and local management schemes. BNPB, as the policy maker and the main coordinator in the event of major disaster, coordination of relief operationstill face problems like undersupply/oversupply of relief goods in the affected area (Kusumastuti, et al, 2010). Some researchers proposed the polycentric governance is the key for post disaster since it becomes the catalyst for otherpathways (Djalante et al (2011, Folke et al. 2005). Interorganizational cooperation is obviously difficult; furthemore, the problem encountred are different in different relationships and call for different solutions (Nielsen and Sorensen, 2008). In sum, the different disaster call for different cross sectoral governnance.

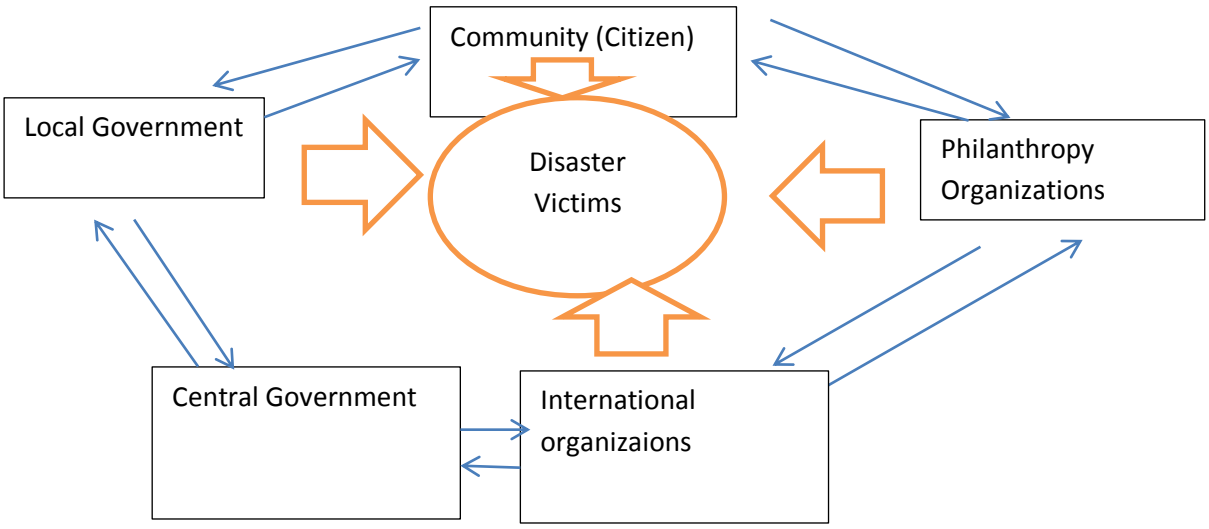

Fig.9. The Pattern of Cross Sectoral Disaster Governance

Conclusion

The vulnerable to sea-level rise and myriad natural disasters Indonesia requires that public managers know more than governance management methods. Public administrators must learn to solve problems within the cultural, structural, and political boundaries of networks, partnerships, and collaborations while still managing the boundaries of their own home organization (Kapucu, 2010). The international organizational and inter-national level organizational relationship among these agencies and the unfaltering need for a coordinated effort from these agencies supports the growth and implementation of networks, partnerships, and collaborations as modalities for addressing new policy issues. Compartmentalized and specialized agencies and administrative functions have served as the rule, leaving open unmet needs (Kapucu, 2010). The different disaster were happened in al around Indonesia created the different new model cross sectoral governance.

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