

## Writing Structure of Disaster Management Planning Document in West Java

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**Abstract.** West Java Province is one of the provinces that have a tendency of high level of disaster in Indonesia. This requires serious attention from the government that must be incorporated into disaster management planning document in West Java. The research problem lies in the writing structure of the document. Qualitative approach with content analysis is used as the method. Documentation and interview studies are performed as the data collection technique. The research's' results show that the contents of disaster management planning documents in West Java has covered zones, strategies, focus, targets, priorities and activities arranged in sequence according to the format determined by the government in integrative manner. Our recommendation is that the disaster management in West Java still requires coordination and cooperation of several related parties.

Keywords : Disaster, Management, Planning, Writing Structure

### 1. Introduction

West Java Province has a geographical area consisting of land, coast and mountains with a population of around 47 million spread in 27 regencies / cities, 620 districts, 633 sub-districts and 5,244 villages. West Java Province has the largest forest area in Java - Bali with an area of 1.04 million ha and has 40 watersheds with the availability of water at the rate of 66 billion m<sup>3</sup> / year, including 150 million m<sup>3</sup> / year surface water and underground water. The area of West Java Province is 34,594 km<sup>2</sup> with diverse topographical characteristics, which makes West Java Province become more vulnerable against the potential disaster.

Based on the cause of the occurrence, Potential disasters in West Java Province divided into 2 parts i.e. natural disasters and non-natural disasters. Natural disasters include disasters caused by geological phenomena (such as earthquakes, tsunamis, and ground movements), disasters caused by hydro-meteorological conditions (floods, landslides, droughts and hurricanes), disaster caused by biological factors (human disease outbreaks, and plant / livestock diseases) as well as technological failure (industrial accidents, transportation accidents, and chemical pollution). Meanwhile, non-

natural disasters are related to human behavior resulting in damage and negative impact on nature such as social conflicts, epidemics and disease outbreaks, and residential fires.

High community vulnerability, due to the low level of life and livelihood of the community, requires effort in increasing capacity to reduce the risk of disaster. Unfortunately, disaster management has not been included into the mainstream of development and administration. Now, disaster management remains sectoral and reactive, thus the integrated prevention efforts needed in order to be comprehensive disaster management.

Based on Law No. 24 of 2007 on Disaster Management; West Java Provincial Government is obliged to implement the disaster management in the region. Disaster management includes fulfillment of the rights of the affected communities, protection from the impact of disasters, increasing community capacity to reduce disaster risk, and disaster-friendly physical development. All of these activities budgets tailored to the ability of Regional Revenue and Expenditure Budget. In addition, West Java Provincial Government also has the right to establish regional disaster management policies that are aligned with regional development policies, also include potential and technology elements that exist in the region. "In disaster management, a myriad of news and reports relevant to the disaster may be recorded in the form of text document. A challenging problem is how to provide concise and informative reports from a large collection of documents, to help domain experts analyze the trend of the disaster" [1].

The process of preparing a disaster management plan in West Java Province involving various related parties at the provincial and regency / city scale, including Regional Devices, Academics, Non-Governmental Organizations, Local Communities, as well as private parties. Thus, the contents of the disaster management plan are expected to accommodate cross-cutting issues as well as inputs from various parties. "The emphasis of disaster management efforts should focus on communities and the people who live in them. Unless the disaster management efforts are sustainable at individual and community level, it is difficult to reduce the losses and scale of the tragedy. There needs to be an opportunity where people can be involved from the initial programming stage of disaster management activities" [2].

In its implementation, West Java Province's disaster management plan will not only be useful for local governments, but also local communities. Therefore, dissemination and public discussion becomes one of the stages in disaster management plans to ensure that it contains substance based on community empowerment and in accordance with the needs of the communities. This disaster management plan is a living document that will be evaluated regularly by the West Java Regional Government and Regency / City Government in terms of achievement and suitability with the regional condition at that time.

The existence of the West Java Province disaster management plan will have an important role in reducing regional disaster risk (including long-term risk), which then can reduce losses that will be experienced by the region and the local community. These plans can be a conceptual foundation to reduce the impact caused by disasters, also in order to adapt to natural hazards or disasters caused by human negligence at the same time. Therefore, disaster preparedness and disaster management are generally needed at every government levels in the form of a West Java Province disaster management plan document. The document should have good writing structure so all parties can easily understand it. Based on the description above, the problem is formulated as follows: What is the writing structure of disaster management planning documents in West Java? Thus, the purpose of this research is to describe the writing structure of disaster management planning documents in West Java.

Writing structure is "the structured writing approach grew out of a research program focused on the broad question: How can we make learning easier and quicker for people in complex information rich environments? As this question was examined from a number of different angles, my research began to focus on the three part approach of (1) content analysis, (2) project life-cycle synthesis and integration of the content analysis, and (3) sequencing and format" [3].

Therefore, in the discussion, the researcher will conduct a content analysis related to the disaster management planning document in West Java Province. However, not all of these planning documents will certainly be shown in this article. The researcher will summarize it into several categories "Content analysis has been defined as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding" [4]

Then, the researcher will do “...integrated with various planning approaches into a life-cycle methodology for writing projects. The life-cycle integration has been elaborated to facilitate document writing projects at every level of detail and size” [5]. The final stage is to analyze the sequence in the document format “The third broad area in the method is the ability to specify sequencing precisely and the ability to devise very effective formats for presentation of information complementary to the content analysis system” [5].

## **2. Method**

This research used a qualitative approach, which utilized content analysis. Valid checklists and data extraction forms were used for data collection.

## **3. Results and Discussion**

Indonesia Disaster Risk Index data in 2013 showed that West Java Province is the 12th disaster prone-area from 24 provinces in Indonesia, with a score of 166 in the High category. Meanwhile, Cianjur Regency is the regency / city with the highest disaster risk class of 250. Although data on disaster events in West Java Province shows changes every year, the change tendencies in West Java disaster can be seen from the frequency of occurrence compared to the range of years of data. The data shows that the most frequent disasters tendencies in West Java is landslides. Policies in disaster management should be based on the principles adhered to by all West Java communities. The principle should be based on a comprehensive principle of inclusivity, because basically disaster management activities is a shared responsibility that must be addressed in a directed, integrated and coordinated manner “In emergency and disaster management, coordination and cooperation of public and private organizations are essential at local, national and international levels” [6].

Disaster management policies are built based on the basic principles of West Java disaster management in accordance with the basic principles of disaster management at the national level, namely: quick and precise, priority, coordination and integration, efficient and effective, transparency and accountability, partnership, empowerment, non-discriminatory, non-proletition. Thus, the writing structure of the document can be cross-domain “In general, document writing structure could be different across-domains, but similar intra-domain” [7].

Based on Law No. 24 of 2007 about Disaster Management, the main institution that specifically handles disaster management at the provincial level is the Regional Disaster Management Agency. This Regional Device tasked to formulate and establish policies on disaster management efforts starting from the pre-disaster, during disasters and post-disaster stage; which includes prevention and mitigation, preparedness, emergency handling, rehabilitation and reconstruction in a fair and equal manner, and coordinate the implementation of planned, integrated and comprehensive disaster management activities. In the operation of disaster management, the agency cooperates with other Regional Devices in the other Province, Regency / City BPBD, relevant institutions and agencies as well as Disaster Forum or organization, including the West Java Disaster Risk Reduction (DRR) Forum. The West Java DRR Forum is a forum to facilitate cooperation and interests related to disaster between the government, the community and the business world to help align various DRR policies, programs and activities, especially at the provincial level. In order to support the achievement of West Java disaster risk reduction goals and the realization of regional resistance and resilience to disasters aligned with the vision and mission in disaster management.

Generally, strategy of disaster management plan in West Java is to reduce the Disaster Risk Index (IRBI) in each Regency / City and in West Java Province and specifically, divided into 3 Strategies, namely: Decrease in Threat Level, Decrease in Vulnerability Level to Disasters and Capacity Improvement in Disaster Management. However, especially given the disastrous events of geological and hydro-meteorological disasters are hard to predict then the efforts to reduce the threat level is also difficult to do. For this reason, the efforts to reduce the threat level are currently ignored and have not become a priority as well as not included in the disaster risk index calculation variable because the disasters threat is very difficult to measure every year. The government is currently

prioritizing efforts to reduce the Disaster Risk Index on reducing the level of vulnerability to disasters and increasing disaster management capacity, where the two variables can be measured each year so that the disaster risk index value can be discovered.

Implementation rules of the West Java Disaster Management Plan implemented through collaboration and coordination among agencies and emphasized on the disaster priority zone. This rule serves as a guideline for implementing disaster management policies in West Java. The scope of the disaster management policy contained in this document is the entire West Java Province region. However, due to the vastness of the province and region that is vulnerable or disaster risks, hence the priority focus is needed in the disaster management location, “they have important implications for risk assessment, resource allocation and disaster management planning” [8]. Viewed, the contents of the disaster management planning document in West Java Province are very complete. First, the specified location is named as a priority zone of disaster management. The preparation of this priority zone is expected to ensure the effectiveness of the disaster management budget in West Java. The West Java Province disaster management priority's zone is prepared for disasters that will be the responsibility of West Java Province. The disaster management priority's zone is classified based on the types of disasters as follows:

The preparation phase of disaster management plan in West Java can be seen in table 2 below:

**Table 1. West Java Province Disaster Management Priority Zone**

<b>DISASTER MANAGEMENT PRIORITY ZONE</b>	<b>REGENCY / CITY</b>	<b>PROVINCIAL STRATEGIC AREAS / WP</b>
1. Land / Landslide Movement	Tasik, Garut, Cianjur, Sukabumi, Majalengka, Bandung Regency, West Bandung Regency, Bogor, and Sumedang	1. Bandung Basin Area 2. Bopunjur area
2. Floods	Bekasi, Karawang, Indramayu, Subang	1. Coastal Area Pantura 2. Bodebek and Purwasuka Region.
3. Extreme Weather	Bogor, Sukabumi, Cianjur, Garut, Bandung Regency, Tasikmalaya, Ciamis, Kuningan, Cirebon, Majalengka, Sumedang, Indramayu, Purwakarta, Karawang, Bekasi, Pangandaran, West Bandung Regency.	1. Bandung Basin Area 2. Pantura area
4. Drought	Bekasi City, Bekasi Regency, Karawang, Depok City, Sukabumi Sukabumi, Cianjur, Bandung, Sumedang, West Bandung Regency,	Pantura area
5. Earthquakes	Bogor City, Bandung Regency, Tasikmalaya, Sukabumi City, Garut, Majalengka, Ciamis, Cimahi	1. Bandung Basin Area 2. Priangan area 3. South Coast Area
6. Volcanic eruptions		
6.1 Tangkuban Perahu Volcano	Subang, Purwakarta, West Bandung, Bandung, Cimahi	Bandung Basin Area
6.2 Salak Volcano	Bogor and Sukabumi Regency	Bogor and Surrounding Areas
6.3 Papandayan Volcano	Bandung and Garut Regency	Garut and Surrounding Areas
6.4 Guntur Volcano	Garut , Bandung Regency	Garut and Surrounding Areas
6.5 Gede Volcano	Bogor, Sukabumi, Cianjur	Bogor and Surrounding Areas
6.6 Galunggung Volcano	Garut and Tasikmalaya	Tasik and Surrounding

		Areas
6.7 Ciremai Volcano	Kuningan, Cirebon and Majalengka	Ciayumajakuning Area
7. Tsunami	Sukabumi, Cianjur, Garut, Tasikmalaya, Pangandaran	South Coast Area
8. Karhutla	Kuningan, Majalengka, Subang, West Bandung Regency, Indramayu, Kuningan, Sukabumi, and Ciamis.	Protected Forest and Surroundings Area

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Source: IRBI Document and West Java Disaster Risk Assessment, 2013

**Table 2. Phase Integration of RPB Documents in West Java Province**

INTEGRATION PHASE	ACTIVITIES	OUTPUT
Prior Preparation of RPJMD	Integration of Vision, Mission and disaster management programs in the RPJM Plan	Disaster management is one of the missions, policy directions or priority agenda in the RPJMD
	1. Integration of the RPB implementation at the level of policy makers and technical implementers in the field on an ongoing basis.	The Disaster Management Plan is used as a guideline for drafting the Renstra and RKPD
After Preparation of RPJMD	2. Intensive monitoring of West Java Province Disaster Management Plan implementation	Annual monitoring report on success, obstacles and learning as well as recommendations on the West Java Disaster Management Plan implementation at PB institutions in West Java
	2. Intensive monitoring of West Java Province Disaster Management Plan implementation	Annual monitoring report on success, obstacles and learning as well as recommendations on the West Java Disaster Management Plan implementation at PB institutions in West Java

The table above shows that the information submitted already fulfilled the disaster management methodology in every detail of the activity that becomes a unity as a whole. Through this integration plan, it is expected to ensure the implementation of disaster management policies in achieving the goals that have been set to realize the vision of the West Java Provincial Disaster Management. Based on the index of disaster risk reduction policy, then the program and priority focus in the strategy to improve the performance capacity of disaster management can be seen in table 3 below.

**Table 3. Strategy, Program and Enhancement Activities of Disaster Management Implementation Performance Capacity**

STRATEGY	PROGRAM	FOCUS ON PRIORITY ACTIVITIES
Capacity and Performance Improvement in Implementing Disaster Management		Preparation of Regulations and NSPK PB (RPB, RAD - PB, Master Plan Per Disaster Type) Establishment and Strengthening of SATGAS PUSDALOPS PB, PUSDATINMAS PB, KARHUTLA, TRC, Trauma Center And Health Services Disaster Impacts Preparation of Standards, Implementation Guidelines, Technical Guidelines for Implementation of Pre, Current and Post Disaster Management Strengthening the Volunteer DRR and Network Forum Strengthening BPBD Human Resources, Facilities & Infrastructure Disaster Risk Analysis Study of Disaster Impacts Research in Relocation, Evacuation and Disaster Safe Areas Updating the Disaster Information System Provision of Detailed Scale Spatial maps / Data Improvement of Disaster Management Communication Systems
	Strengthening Disaster Prevention	Development of the Early Warning System Update on Preparedness Systems, Logistics Management and Disaster Assistance Improvement of the Rehabilitation and Reconstruction Information System Disaster Awareness Dissemination Movement Dissemination 'Ready to be Safe' From Disasters Dissemination of Disaster Risk Reduction Disaster Management Technical Training for Apparatus and Disaster Volunteers Management and Disaster Management Administration Training Healing Trauma Training and First Aid Disaster Resilient Village Disaster Safe School Disaster Safe Market Disaster Safe Hospital / Health Center Disaster Safe Office (Government) Organizing the Network of Volunteers and DRR Communities / DRR Forums Preparation of Preparedness Profiles Preparation of Contingency Plans per Disaster Type Activation of Disaster Alert Posts Preparedness Cooperation in Border Areas
	Strengthening Disaster Preparedness	Disaster Management and Emergency Disaster Training and Simulation / Rehearsal Installation of Disaster Management Signs (Evacuation, Gathering, Etc.) Installation and Testing of Disaster Early Warning Instruments
	Strengthening Emergency and Disaster Logistics	Preparation of an Emergency Disaster Operational Plan Determination of Emergency Response Status and Activation of Emergency Disaster Conditions Activation of Disaster Command Post and Quick

	Response Team
	Organizing Emergency Response Conditions
	Rescue and Evacuation
	Supply and Distribution of Logistics and Assistance
	Fulfilling Basic Needs
	Protection of Vulnerable Groups
	Immediate Recovery of Vital Infrastructure
	Rapid Damage and Disaster Impact Assessment (JITUPASNA / DALA)
	Compilation of the Rehabilitation and Reconstruction Plan
Strengthening Post- Disaster Recovery	Improvement of the Disaster Area Environment
	Repair of Public Facilities and Infrastructure
	Home Improvement Assistance / Temporary Shelter
	Trauma Center and Health Services Post
	Recovery of Psychological Health and Social Sciences
	Recovery of Government and Public Service Functions
	Recovery of Livelihoods and Community Life (Social, Economic, Cultural)

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Program, focus and disaster management activities in the disaster management priority zone includes disaster of landslides, floods, extreme weather, droughts, earthquakes, volcanoes, tsunamis as well as land and forest fires. In general, each activity has indicators of achievement that must be achieved by agencies involved in this 5-year planning period. Specific work to be performed by each agency highly dependent on the system and mechanisms during the planning process. Disaster management work's specifications, which are the responsibility of the agency, incorporated into the Strategic Plan and Annual Work Plan of Regional Devices of West Java Province. In the achievement indicators, it is indicated that the locations must be prioritized. These locations have been chosen in such a way as to become the West Java Province's Disaster Management Priority Zone. The mechanism of zoning in the West Java provincial disaster management aims to focus on disaster risk reduction efforts to the several most vulnerable regions.

Budget calculation on indicative ceiling of disaster management activities follow a strategy of budgeting, which divides disaster management budgeting into two parts. The first budget is a periodic budget, which is an annual burden on the Regional Budget of the West Java Province (APBD), while the second budget is a specific budget for emergency management and disaster recovery. The first budget was devoted to the implementation of disaster management in the period before the disaster occurred. This budget follows the assumption that the budget for implementing disaster management is approximately 1–1.5% of the total regional budget. In 2017, the West Java Province Expenditure Budget is 21,269 Trillion Rupiah. The estimation of the Regional Revenue and Expenditure Budget of West Java Province in 2018 is equal to 22,215 Trillion Rupiah. Thus, the total budget of the West Java Province disaster management for the 2018-2023 fiscal years is a minimum of 333.2 Billion Rupiah.

Monitoring and evaluation aims to control the implementation of program activities to be in accordance with the plan prepared. Monitoring program implementation performed to ensure the achievement of goals and objectives that have been planned. Implementation of disaster risk reduction's programs and activities, and the value of a disaster risk index's indicator must be reported in a written report. The hope is that all reports on disaster management can be well documented and officially issued by BPBD. In addition to containing activity reports and achievements, the report also contains a review of the success / failure of all risk reduction programs and activities that have been performed during the period of the disaster management plan. The report will also contain recommendations of further actions for specific agencies / institutions if needed. Thus, it can be said that disaster management planning document in West Java has been arranged sequentially in the format set by the government.

#### 4. Conclusion

Based on the results of the discussion above, it can be concluded that in writing a document, there are five types of meta-system components that must be performed, namely: Inquiry, Theory, Application, Social system and Communication idioms. Disaster management planning document in West Java already has had five types of components where each other is interrelated in writing perfectly. Mainstreaming disaster management is a mechanism to ensure organizing planning, implementation and supervision of disaster management by the Government of West Java Province. Implementation of the West Java Province disaster management plan requires a strong political and technical commitment at all levels of the West Java Provincial Government until the culture of safety against disasters in the community is built and preserved, in accordance with the West Java Province Disaster Management Vision.

This planning document needs to be evaluated and adjusted to the development of West Java Province and environmental changes and progress that affect the occurrence of disasters. This document also needs to be translated into a Regional Action Plan for Disaster Risk Reduction. This Action Plan also provides space for government partners to actively contribute and participate in the development of a safe culture of disasters in West Java Province. This research is expected to provide awareness of language users about the importance of language awareness. Making documents using standard Indonesian is performed with quite long steps thus clarifying the intentions to be achieved, the document should be socialized in a short, solid and clear language.

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