PREPARATION OF CONTINGENCY PLAN DOCUMENTS FOR THE CIBINONG RAYA EARTHQUAKE DISASTER IN BOGOR REGENCY

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ABSTRACT

This study aims to develop an Earthquake Contingency Plan Document for the Cibinong Raya area in Bogor Regency to enhance regional preparedness and reduce disaster risks. The objective is to provide a practical reference for government and stakeholders in facing the potential impact of an earthquake in one of the most densely populated areas in West Java. The method applied is a participatory—collaborative approach based on SNI 8751:2019 and the Disaster Emergency Management Command System (SKPDB), involving Pentahelix stakeholders consisting of government, community, academics, business, and media. The process includes hazard identification, spatial and risk analysis, formulation of a worst-case scenario, and Focus Group Discussions to establish operational targets, command structures, and logistical arrangements. The results show that a potential earthquake of magnitude M≈6.5 on the Baribis−Kendeng Fault could affect five districts in Cibinong Raya, with an estimated impact on nearly 500,000 residents, critical infrastructure, and public services. The contingency plan document produced through this process functions as both an operational guideline and an advocacy tool to unify stakeholder commitment, allocate resources, and strengthen coordination for effective emergency response and sustainable disaster risk reduction.

Keywords: Contingency Planning, Earthquake Preparedness, Disaster Risk Reduction, Cibinong Raya

1. INTRODUCTION

The Jakarta area is underlain by complex geological terrain arising from the convergence of the Australian and Eurasian Plates along the Java Trench. In addition to earthquakes generated along this subduction zone, the Jakarta area and its surroundings are also affected by earthquakes occurring along active faults in western Java, such as the Cimandiri Fault (Katili and Soetadi 1971; Setyadji et al. 1997), Lembang Fault (Daryono et al. 2019), Baribis Fault (Simandjuntak and Barber, 1996), Cipamingkis Fault (Gunawan and Widiyantoro 2019), and Garut Fault (Supendi et al., 2018). The population and infrastructure are exposed further, increasing vulnerability. The Jakarta urban agglomeration (Jabodetabek) is home to over 30 million people, making it one of the largest metropolitan areas in the world population scale that, if subjected to a strong earthquake, has the potential to cause significant casualties and losses. Historically, there have been two significant earthquakes resulting in casualties and building collapses in Jabodetabek, these occurring on January 5, 1699, and January 22, 1780 (Musson 2012; Wichmann 1918). Nguyen et al. (2015) modelled the 1699 event and suggested that the Mw 8.0 earthquake occurred on a subducting plate at a depth of approximately 160 km. During the 1780 event, 27 buildings collapsed in Jakarta (Musson, 2012; Wichmann 1918).

The potential for disasters mentioned above requires preventive measures to reduce the risks and potential losses. Law No. 24 of 2007 concerning Disaster Management has shifted its paradigm toward risk reduction. Disaster management policies and practices must be based on an understanding of disaster risk across all dimensions: threat, vulnerability, and capacity. This knowledge can be utilised for pre-disaster risk assessment, prevention, and mitigation, as well as the development and implementation of adequate preparedness and effective disaster responses. On the other hand, community and stakeholder preparedness still varies. Implementation of earthquake-resistant buildings is not yet evenly distributed, despite the availability of technical guidelines, such as SNI 1726:2019 concerning Procedures for earthquake-resistant planning for building and non-building structures. Mainstreaming literacy in Disaster management in educational units is progressing gradually despite the existence of Permendikbud No. 33/2019 concerning the Implementation of the Disaster-Safe Education Unit Program (SPAB). The technical evaluation following the 2022 Cianjur earthquake also emphasised the importance of implementing earthquake-resistant construction principles from simple houses to public facilities. In UU No. 24 of 2007, SNI 8751:2019 concerning Contingency Planning, and BNPB Regulation No. 03 of 2016 concerning the Disaster Emergency Management Command System (SKPDB) serve as the normative basis for the preparation of cross-stakeholder contingency plans in the regions.

The Disaster Management Study Program Lecturer Team at Budi Luhur University, together with the Bogor Regency BPBD, prepared a Contingency Plan. The Cibinong Raya Earthquake (Cibinong, Bojong Gede, Citeureup, Babakan Madang, and Sukaraja Districts) serves as a reference document for regional preparedness. The preparation of this document was facilitated by USAID through the *Catholic Relief Service (CRS)*, emphasising that the commitment of

regional heads is necessary in disaster risk reduction efforts that require cross-sectoral synergy. As a legal basis, there is the Regulation of the Permendagri No. 101 of 2018 concerning Basic Service Technical Standards in the Minimum Service Standards for Disaster Sub-Affairs, one of the points of the 12 disaster sub-services requires regional governments to make efforts to build preparedness to face potential disasters through Contingency planning. Contingency planning is carried out in situations where there is a potential disaster, where scenarios and objectives are mutually agreed upon, and technical and managerial actions are determined. Response systems and the deployment of potential resources are mutually agreed upon to prevent or better manage emergencies. The process of preparing the Contingency Plan Document is carried out collaboratively through Focus Group Discussion (FGD) activities involving Pentahelix elements. Disaster, with minutes as evidence of activities and results of multi-party agreements that discuss scenario sources, command structures, and *people-centred principles*. *Inclusive humanitarian assistance*. The Contingency Plan Document also contains the commitment of the Pentahelix elements (Government, Society/Community, Academics, Business World, and Media), as an implementation strategy and test plan (drill): command post, table-top exercise, and field test. The Contingency Plan Document is expected to be an advocacy tool to build commitment, provide resources, and unite action for all institutions related to the implementation of disaster management in the region.

2. METHOD

Compilation Plan Cibinong Raya Earthquake Contingency (Renkon) using approach participatory-collaborative with three pillars of the method: (1) planning contingency according to SNI 8751:2019 with flow: equalization perception \rightarrow scenario development \rightarrow sectoral planning \rightarrow plan action continued; (2) governance operation emergency follow the Command System Handling Emergency Disaster (SKPDB); and (3) preparation conversion plan Contingencies become Plans Operation as bridge to *incident action planning* moment responsive emergency. The framework matched with the room, the priority area scope is five sub-districts in Cibinong Raya (Cibinong, Bojong Gede, Citeureup, Babakan Madang, and Sukaraja), so that all external documentation is according to the function command, logistics, operations, planning, and financial administration.

Preparation Stage	 Formulate objectives, scope of 5 sub-districts. Pentahelix stakeholders. Cross-OPD data inventory: demographics, public services, road networks, health/education facilities, critica assets. Develop a timeline, team roles, and FGD plan
Implementation Stage	 Compilation & verification of hazard and exposure data. Spatial & risk analysis; maps of affected areas + vulnerable groups. Formulate a worst-credible earthquake scenario (e.g. Baribis – Kendeng) + assumptions (time, location magnitude, intensity). Pentahelix FGD: validate scenarios, agree on roles, identify capacity gaps. Compile a task matrix per command function, SOP/PROTAP sub-field. Design communication network & activation mechanism
Document Preparation Stage	 Preparation of background, legal basis, objectives, scope, policies and strategies, approaches, methods and strategies of the process, validity period and conversion of the renkon into an operational plan Hazard identification, event scenarios, and impact assumptions Determination of the main tasks and objectives of the disaster emergency command organisation Determination of operations and action targets, command structure, field tasks and coordination instructions Determination of administration and logistics Establishment of command, control, coordination, communication and information Determination of follow-up plan
Evaluation Stage Dissemination and Approval	 Plan test: space test/TTX → post test → field test Dissemination across OPD/communities; document finalisation. Internal regional ratification process (SK/ Regional Regulation / Regional Regulation). Publication on the official BPBD portal

3. RESULTS AND DISCUSSION

Community service activities carried out by the Disaster Management Study Program Lecturer Team at Budi Luhur University in Bogor Regency, with a focus on the Cibinong Raya area, have been implemented and run smoothly. The implementation of assistance in the preparation of the Contingency Plan Document began from July 2024 to January 2025. The results of the analysis, Focus Group Discussion (FGD), and review of supporting documents are described in the sub-chapters of hazard characteristics identification, event scenarios, potential impacts, Main Duties and Objectives of the Disaster Emergency Management Command Organisation, logistics administration, and control.

Identification of Hazard Characteristics

The analysis process to identify hazards is carried out by collecting spatial data, population data, spatial planning data, and other supporting documents, which are carried out *on-desk or* studio work. Then the results of the initial analysis

were submitted to the Pentahelix Disaster elements (Government, Community, Business World, Academics and Media) in the FGD forum held at the M-One Hotel Sentul Hotel located at Jl. Raya Jakarta-Bogor No.KM.49, Sentul, Sukaraja District, Bogor Regency, West Java 16710. The results of the initial analysis presented included the geological and geomorphological characteristics of Bogor Regency, the position of faults around the Cibinong Raya area, namely the Baribis Fault, the Lembang Fault, and the Cimandiri Fault.



Figure 1. Initial Study and Socialisation of The Preparation of Earthquake Contingency Planning Documents on The Disaster Pentahelix Element

In addition to subduction zones, shallow earthquakes originating on land have also frequently occurred in Java in recent decades. Due to the dense population in Java, these earthquakes have quite a destructive impacts. Reimpacton mapping earthquake sources in Java, especially active faults located on land, is currently starting to receive attention (Marliyani et al., 2016; Daryono, 2016; Supartoyo, 2016). For example, Marliyani (2016) used various geological methods, including mapping, qualitative and quantitative analysis of tectonic geomorphology, and paleoseismology, to map active faults in Java (on shore). The results of research by Marliyani (2016) show that small-scale structures accommodate active deformation in Jawa (km to tens of km) with a fairly wide distribution. No dominant structure has developed in Java like those formed in Sumatra through the Sumatran fault. In addition to the compilation of existing research results, new earthquake sources were also discovered in the preparation of a national earthquake map conducted by the National Centre for Earthquake Studies (PuSGeN).

The Java subduction zone, with its many segments, has a significantly lower frequency and magnitude of earthquakes compared to Sumatra. However, several large earthquakes have also occurred off the southern coast of Java, particularly along the megathrust (Newcomb and McCann, 1987). Of the many earthquakes that occurred in the Java subduction zone, none reached Mw 8. Apart from the small-scale tsunamis that occurred in 1994 (Abercrombie et al., 2001) and 2006 (Ammon et al., 2006; Fujii & Satake, 2006), there is no historical record of large tsunamis in the Java subduction zone. It is estimated that the relative movement of plates in the Java subduction zone is accommodated primarily by aseismic movements without any energy buildup. This hypothesis is supported by the fact that the age of the plate subducting beneath Java is relatively older (120-130 Ma) and therefore cooler and heavier. As a result, the angle of subduction is greater so that the subducting oceanic plate does not contact strongly with the overlying Eurasian plate. This is also supported by the many normal faults in the fore-arc region, indicating the dominance of slab-pull. Force compared to slabpush force in this area (Abercrombie et al., 2001).

However, the major earthquakes in 1994 and 2006 showed that the Java subduction zone was not completely aseismic and still has the potential for earthquakes. The existence of a long period of seismicity could indicate the presence of locked patches isolated in the plate boundary area. Locked. These isolated patches, when finally released, will produce a large magnitude earthquake. The subduction of seamounts could cause these locked patches to exist (Abercrombie et al., 2000). According to Kanamori (2008), in general, in subduction zones, the subducting plate has a rough and old surface, a *coupled/locked area*. *The zone* can be located within a narrow zone in the area near the trench at the leading deformation boundary of the subduction system. The Java subduction earthquakes of 1994 and 2006 occurred in a narrow area (several tens of kilometres). km from the trough) So it is very likely that this earthquake occurred due to an *isolated locked zone* at the Java subduction boundary. The potential seismicity of the Java subduction zone likely follows this pattern, meaning that future earthquakes are likely to occur in areas where there is a seismic gap (a zone of low seismicity) along a narrow seismic zone.

A combination of the southern Java subduction and active onshore faults in West Java influences earthquake hazard in Cibinong Raya. Java Island is a very active arc and an active arc with a high population density and infrastructure, so the hazard characteristics depend not only on the earthquake source but also on the extent of exposure in the Bogor-Jabodetabek urban area. *The* Contingency Plan study also includes detailed sub-chapters on geology, active faults, earthquake catalogues, GPS parameters, subduction segmentation, and *probabilistic Seismic Hazard Analysis (PSHA) to capture* probabilistic hazard patterns in West Java as a basis for scenario planning. These findings align with the

2017 Indonesian Earthquake Hazard and Source Map (PuSGeN), which inventories major subduction sources and onshore faults in Java.

Baribis Fault as a potential hazard/immediate threat to the Cibinong Raya Region. The Contingency Plan document highlights the Baribis -Kendeng Fault as a priority hazard source for the Cibinong Raya Region. The area includes a fault line extending from Subang - Purwakarta - Karawang - Bekasi - Depok - Jakarta to Tangerang and Rangkasbitung, with a historical record of destructive earthquakes such as the 1834 Bogor and 1862 Karawang earthquakes. Based on the BMKG modelling adopted in the Bogor Regency Contingency Plan document, a reasonable worst-case scenario for earthquake emergency operations in Cibinong Raya is an earthquake with a magnitude of M≈6.5, a shallow hypocenter (~10 km), with an intensity of IV - V MMI, and its area covers five districts, namely, Cibinong, Bojong Gede, Citeureup, Babakan Madang, and Sukaraja. Geodetic evidence (block model, shear rate) strengthens the active status of Baribis; empirically, the Bekasi-Karawang earthquake event of August 20, 2025, which BMKG has confirmed is a fault segment of the West Java back arc thrust fault (West Java back arc). Arc thrust serves as a reminder of the potential for shocks in the Jabodetabek area (Daryono, 2016).



Figure 2. Baribis Fault Located in the West Java Region
The yellow line represents the Baribis Fault line proposed by Koulali et al., 2016.
The red line indicates the Baribis Fault segment proposed by the Geological Working Group.

The existence of the Lembang Fault as a source of significant earthquakes that can be felt as far as Bogor. Although located predominantly in the Bandung-Lembang corridor, the Lembang Fault still has the potential to pose a threat to Bogor Regency because medium to large magnitude events can cause regional shocks that can be felt as far as Cibinong, which depends on the magnitude, depth, wave propagation path, and infrastructure conditions. In the Contingency Plan Document, the lecturer team provides an analytical review of the probabilistic parameters of Lembang, including a maximum magnitude of ∼6.8 and a geodetic shear rate (Meilano et al, 2012), in line with the official BMKG release, which stated the potential maximum magnitude of M≈6.8 and evidence of a shift of several millimetres per year. So, even though *the hazard while the* main *driver of* Cibinong Raya is Baribis, shocks from significant events in Lembang still need to be considered in cross-regional preparedness design.

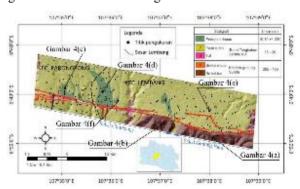


Figure 3. Geological Kinematics of the Area Around the Lembang Fault Zone Source: Daryono et al, 2019

*Basin locations : (1) Ciwaruga, (2) Cibereum, (3) Cihideung, (4) Situ Umar. The dotted black line is the region boundary

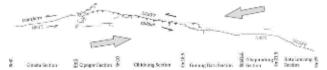


Figure 4. Kinematics of the Lembang Fault and its Division Source: Daryono (2016)



Figure 5. The Cimandiri Fault is a ~ 100 km-long multisegment fault located to the west of the Lembang Fault Source: Hussain et al, 2023

Cimandiri Fault is an active fault cluster south of Bogor that has produced damaging shallow earthquakes. The Contingency Plan Document describes the Cimandiri Fault System, which covers the main segment of Pelabuhan

Ratu-Sukabumi-Cianjur -Padalarang. The fault zone is visible due to the straightness of the valley and mountains, and the length of this fault is estimated to reach 100 km (Indrajati et al, 2018). The existence of the Cimandiri Fault was again proven in the Cianjur earthquake that occurred on November 21, 2022. However, the BMKG ultimately identified it as a new fault source, namely the Cugenang Fault, which is still part of the Cimandiri Zone. The shallow crustal earthquake that occurred caused widespread damage and was felt strongly, especially in the Bogor area and generally felt lightly in the Jadetabek area. For the Cibinong Raya area, the Cimandiri Fault is *an important contributor*; even though the epicentre is not in the Cibinong area, the combination of magnitude, depth, and local ground conditions can produce significant shaking intensity, so operating procedures and public communications must anticipate such a regional earthquake scenario.

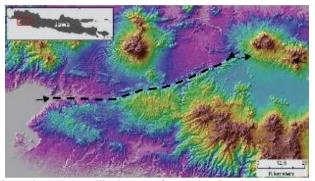


Figure 6. SRTM satellite imagery from Pelabuhan Ratu to Bandung
*The black arrows and lines indicate the straightness of the hills and valleys as characteristics of the Cimandiri Fault and
Lembang Fault zones (Horspool et al., 2011).

Implications for scenario and contingency planning, Cibinong Raya

Referring to the hazard identification above, the preparation of the Contingency Plan document selected an operational scenario based on Baribis -Kendeng to ensure a spatially relevant *worst-case scenario for the five sub-districts in the* Cibinong Raya area (Cibinong, Bojong Gede, Citeureup, Babakan Madang, and Sukaraja Sub-districts), while still paying attention to the potential threats from the Lembang Fault and the Cimandiri Fault as a *probabilistic* analysis. *Seismic Hazard Analysis* (PSHA) and historical studies. This scenario is used as a reference in determining impact assumptions, sector priorities, and 0–72-hour operational plans. The Contingency Plan document serves as the basis for preparing the Operational Plan Document (Renops) when a state of emergency is declared.

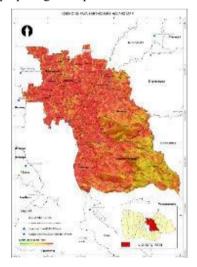


Figure 7. Cibinong Raya Earthquake Hazard Map



Figure 8. Map of Distribution of Evacuation Place In Cibinong Raya



Figure 9. Cibinong Raya Evacuation Route Map

Event Scenario

Contingency plans are carried out before a disaster occurs, so that the determination of event scenarios and impact scenarios becomes an operational guideline to ensure that emergency response is fast, precise, coordinated, and comprehensive, as well as being the basis for mobilising stakeholder resources during activation. This framework is in line with SNI 8751:2019 Contingency Planning, which requires the formulation of scenarios, action targets, institutional roles, and command and coordination mechanisms so that plans can be immediately converted into

operational plans when emergency status is declared. The scenarios used are derived from scientific literature and historical records of earthquakes in West Java that impacted Bogor, with a focus on the Baribis Fault. This active fault stretches from Subang, Karawang, Bekasi, Depok, Jakarta to Tangerang and Lebak and is recognised by BMKG to have a shear rate of ~0.5mm/year (PusGeN, 2017). Historical records show that destructive earthquakes occurred in 1834 around Bogor and in 1862 in Karawang-Bekasi. In current conditions, population density and the quality of buildings that are not yet fully earthquake-resistant increase the potential for damage even for moderate shocks, so that if the Baribis earthquake occurs, the impact and losses have the potential to be significant for the Cibinong Raya area.



Figure 10. Pentahelix FGD for Validation of Scenarios, Roles, SOP/PROTAP & Communication Network

The West Java Meteorology, Climatology, and Geophysics Agency (BMKG) has conducted a modelling study of earthquake-induced shocks from the Kendeng Fault -Subang segment of the Baribis fault, which traverses Bogor Regency. The maximum magnitude values used, as well as the possible earthquake epicentre location, are based on the worst-case scenario developed by the Meteorology, Climatology, and Geophysics Agency (BMKG), as follows.

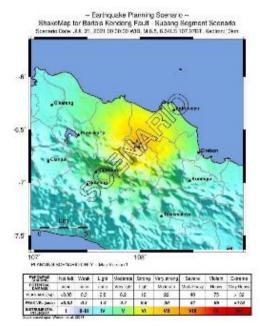


Figure 11. Earthquake Disaster Event on the Baribis Fault - Kendang Fault - Subang (BMKG, 2024)

Table 1. Summary of Earthquake Disaster Event Scenarios

		,		
No	Aspect	Details		
1	Assumed Time	 Day/ Date: Wednesday, July 21, 20xx 		
	of Event	 At 00.00 (early) day, the majority of inhabitants currently 		
		rest at home.		
		 Duration shock: 20–30 seconds 		
2	Strength	 Magnitude: 6.5 SR 		
Earthquake Int		 Intensity: IV–V MMI 		
3	Earthquake	■ Point coordinate epicentre: 6.64 South Latitude – 107.97		
	Location	East Longitude		
		■ Depth: 10 km		
		 Distance from epicentre: [not yet determined] 		
		 Source Earthquake : Baribis Fault , Baribis Segment - 		
		Kendeng Fold - Subang		
4 Coverage of 5 Districts affected : 1		5 Districts affected : 1) Cibinong 2) Bojong Gede 3) Sukaraja		
	Affected Areas	4) Citeureup 5) Babakan Madang		
■ IV cc or		Shallow earthquake		
		 IV MMI: Cracks in the wall, building simple, partially 		
		collapsed, glass broken, plaster wall off, the roof shifted		
		or fallen, damage light-medium in structure.		
		 V MMI: Vibration felt almost all over the population; 		
		many people woke up, pottery was broken, goods were		
		thrown, a big pole/object was swinging, and a pendulum		
		bell stopped.		
6	Danger	Earthquake aftershock, panic community, ruins of non-		
	Secondary	standard building materials, land landslide consequence shift,		
		potential epidemic disease, fire buildings and settlements.		
7	Vital Objects	Disruption in service communication, supply of electricity,		
	Affected	distribution of fuel, LPG, and clean water.		

Potential Impact

Based on the scenario proposed by BMKG, the Disaster Management lecturer team then processed spatial and attribute data to analyse the estimated potential coverage of the affected area, population, facilities and infrastructure, economy, public services, and environment. The potentially affected areas include five sub-districts: Cibinong, Bojong Gede, Sukaraja, Citeureup, and Babakan Madang. The analysis estimates the number of affected residents at around 495,998, with potential victims consisting of 4,792 deaths, 14,377 serious injuries, 43,132 minor injuries, 3,593 missing, and approximately 198,399 displaced. The impact on physical infrastructure is also significant: 197.41 km of roads are

potentially damaged, 1,401 educational facilities are affected, and 119 health facilities are classified as light to heavy damage. Other vital infrastructure, such as government buildings, places of worship, electricity networks, communications, and clean water supplies, is also at risk of disruption. Furthermore, the economic and public services sectors are projected to experience significant pressure. Damage to 17,385 residential units will result in material losses and increase the number of people left homeless. The trade, office, and social services sectors are expected to be paralysed during the initial emergency response period due to damaged facilities and disrupted mobility. The physical environment is also threatened by potential landslides, fires, and debris, increasing the burden of response. Overall, these projected impacts demonstrate the need for cross-sector coordination, large-scale logistical support, and rapid post-event recovery to minimise loss of life and economic losses.



Figure 12. Presentation Of The Potential Impacts Of The Earthquake Scenario By The Head Of The Contingency Plan Document Assistance Team

Main Duties and Objectives of the Disaster Emergency Response Command Organisation

The Disaster Emergency Management Command Organisation was established to ensure that all elements can work in an integrated manner when a state of emergency is declared. Its primary duties include coordinating all resources, controlling field operations, and ensuring a single point of communication and information. This command structure is also responsible for establishing operational policies, issuing technical instructions, managing logistics distribution, and overseeing the mobilisation of personnel across sectors to ensure swift, precise, and efficient response. The organisation's primary goal is to achieve a comprehensive emergency response operation that protects affected communities, minimises casualties, accelerates the restoration of public services, and ensures that basic needs such as food, health care, and emergency shelter are met. Furthermore, the command aims to maintain integration between agencies to prevent overlapping efforts and to provide a strong foundation for the rehabilitation and reconstruction phase. Thus, the command organisation's existence is not only for tactical response but also as a guarantee of sustainable disaster management in Cibinong Raya.

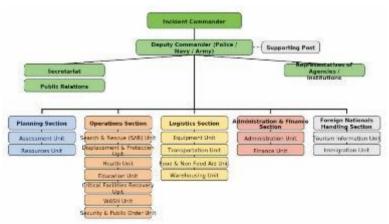


Figure 13. Structure of the Emergency Disaster Management Command System

The preparation of the Disaster Emergency Management Command Organisational structure is carried out in accordance with the Regulation of the Perka BNPB No 24/2010 concerning Guidelines for the Preparation of Disaster Emergency Operation Plans through a Focus Group Discussion (FGD) forum involving all Pentahelix elements disasters in the Bogor Regency area.



Figure 14. FGD on The Proposed Formation of a Disaster Emergency Management Command Organisation

Administration and Logistics

The proposed Contingency Plan underscores orderly administration and robust logistics as the backbone of an effective emergency response. Administratively, it mandates clear decision records, managed correspondence, systematic documentation and archiving, plus defined financial procedures for disbursing emergency funds, using contingency budgets, and ensuring accountable reporting enabling smooth inter-agency coordination and reducing bureaucratic delays. Logistically, it prioritises early identification and mobilisation of resources food and non-food aid, response equipment, transportation, and temporary shelters supported by reliable warehousing and distribution networks that reach affected areas quickly and equitably. Success depends on collaboration with regional authorities, humanitarian agencies, businesses, and local communities to secure adequate, needs-based supplies, alongside prepared human resources (medical staff, volunteers, equipment operators) with rotation mechanisms for sustained operations. Technical enablers emergency communications, specialised logistics transport, and other support facilities are also arranged. Together, these measures aim to deliver an integrated, swift, and accountable response that maintains public trust in local government.

Control

Application of the command and control principle (command and control) to ensure a focused emergency response. The incident command structure serves as the centre of decision-making, while the control mechanism ensures that all implementing elements consistently execute every instruction. With this structure, every emergency response activity falls under a single chain of command, reducing the risk of overlapping authority and conflict between agencies.

Table 2. Command Post and Field Post Data In Earthquake Disaster Emergencies

Post Command	Coordinate	Address
Office Body Disaster	-6.484670488928167,	Jl. Tegar Believe No. 1, Ward Pakansari, District. Cibinong,
Management Regional	106.83835571109566	Regency Bogor, West Java 16915
(BPBD) Bogor Regency		
Post Field	Coordinate	Address
District Office	-6.48399 SL,	Jl. Raya Bojong Gede No. 316, Bojonggede, District
Bojonggede	106.799741 EL	Bojonggede, Bogor Regency, 16922
District Office Citeureup	-6.48680 SL,	Jl. Raya Mayor Oking Jaya Atmaja No. 107, Puspanegara,
	106.878682 EL	Citeureup District, Bogor Regency, 16810
Madan District Office	-6.57087 SL,	Jl. Babakan Madang No.4, Babakan Madang, Kec. Babakan
	106.865248 EL	Madang, Bogor Regency, 16810
Sukaraja District Office	-6.54100 SL,	Jl. Dharmais No. 21, Cimandala , Sukaraja District , Bogor
	106.823852 EL	Regency, 16710
	Office Body Disaster Management Regional (BPBD) Bogor Regency Post Field District Office Bojonggede District Office Citeureup Madan District Office	Office Body Disaster Management Regional (BPBD) Bogor Regency Post Field District Office Bojonggede District Office Citeureup Madan District Office Sukaraja District Office -6.484670488928167, 106.83835571109566 Coordinate -6.48399 SL, 106.799741 EL -6.48680 SL, 106.878682 EL -6.57087 SL, 106.865248 EL Sukaraja District Office -6.54100 SL,

Cross-sector coordination is a crucial aspect of control. The document emphasizes the need for a coordination forum involving government officials, security forces, humanitarian agencies, the business world, the media, and local communities. This coordination ensures a clear distribution of roles, efficient use of resources, and synchronised actions on the ground. The existence of a coordination forum also creates space for submitting situation reports, identifying obstacles, and formulating solutions quickly. In addition to command and coordination, communication and public information aspects receive special attention. The Contingency Plan regulates official communication channels, the use of backup networks, and the appointment of a spokesperson to provide a one-stop shop for information to the public. Transparent and accurate information management is key to maintaining public trust, reducing panic, and preventing the spread of rumours that could hamper operations. Through this comprehensive control system, emergency response in Cibinong Raya is expected to be effective, accountable, and responsive to dynamics on the ground.

Follow-up Plan

Follow-up plans prepared in the Contingency Planning Document Earthquake Cibinong Raya emphasizes the commitment of all parties to carry out their roles according to their command functions, strengthen preparedness through periodic socialization, training, and simulations, and ensure periodic evaluation and updating of documents to remain relevant to the dynamics of risk and regional developments; thus, this plan is not just a formal document, but becomes an operational guideline that is ready to be activated when an earthquake occurs in Cibinong Raya. The Contingency Plan Document is then tested in various ways, namely through. 1) Simulation of coordination meetings, 2) Table Top Exercise (TTX) activities, 3) Post tests/post drills, and 4) Field tests/field drills.



Figure 15. Earthquake disaster preparedness simulation activity at Mount Geulis, by the Bogor Regency BPBD on 12/11/2024 Documentation: https://www.youtube.com/watch?v=sHPwEXhA5Fo

In the final stage, the Contingency Plan Document for the Cibinong Raya Region Earthquake in Bogor Regency has been compiled and disseminated to Pentahelix elements. The Disaster Management Agency and all Regional Apparatus Organisations (OPDs) in Bogor Regency then submit documents for approval and ratification as a Regent's Decree or Regent's Regulation. Contingency Plan documents that have been ratified as Regent's Decree or Regent's Regulation are then uploaded to the website bpbd.bogorkab.go.id and can be accessed by the public via the link https://bpbd.bogorkab.go.id/index.php/berita/buku/rencana-kontingensi-gempa-bumi-cibinong-raya.



Figure 16. Document Assistance Team (left), Group Photo Of BPBD and Pentahelix Elements In Bogor Regency (right)

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