

# Policy Analysis of West Java's COVID-19 Pandemic Response

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**Abstract**— The Government of Indonesia (GoI) defined COVID-19 outbreak as a non-natural disaster as stated in the Decision Letter of Indonesian National Board for Disaster Management (Badan Nasional Penanggulangan Bencana/BNPB) 9A/2020 concerning the Status of Determining the Specific Situation of Coronavirus Disease in Indonesia, prompting the President to declare a state of public health emergency which subsequently led the President to ask relevant ministers to take maximum steps to stop the virus transmission. As the virus began spreading to different parts of the country, including to the most populous province in Indonesia: West Java, local governments, particularly regional and city governments, saw the need to enact stringent measures in their region to the extent which is allowed by their right of autonomy. In doing so, the West Java regional government, which receives its mandate from the national government, is tasked with coordinating and delegating countermeasures to the city/district governments under its jurisdiction, which include mass testing, social restrictions, and securing health services. However, we learned that issues arise during the course of this delegation, including coordination issues between national and local governments, vertical and horizontal mechanisms, and decision making. This paper aims to answer: “How does West Java govern the response to the COVID-19 pandemic?”. It does so by assessing the efforts done by the West Java regional government and its corresponding city/district governments to contain the COVID-19 virus from March to August 2020. The assessment also identifies the gaps which exist between the regional and local governments and use them to formulate recommendations aimed at improving West Java's institutional response to COVID-19.

**Keywords**—West Java, COVID-19, non-natural disaster, governance, countermeasures

## I. INTRODUCTION

In disaster management, democratic countries have begun to integrate decentralization approaches in their disaster governance mechanism as a great deal of disasters manifested themselves locally. While there are significant challenges for decentralization approach (i.e. lack of adequate local capacities and complex bureaucracy) it also poses considerable benefits that may recompense its drawbacks (i.e. local knowledge). The handling of COVID-19 is no exception to this approach, the decentralization principle enables local governments to be more responsive to the outbreak. West Java is one of the provinces in Indonesia that demonstrates how decentralization comes into play in its execution.

West Java is the province with the largest population in Indonesia (approximately 50 million inhabitants as of 2020). This situation conveniently puts West Java in a difficult position in dealing with COVID-19. Located in the western part of island of Java (see fig. 1 for illustration) the region shares its border with many Indonesia busiest cities such as Bogor, Depok, Bekasi (Bodebek), Tangerang, Bandung and other cities, making the area vulnerable to trans provincial virus transmission. In the early phase of the pandemic West Java was still able to control the spread of the virus, but entering the new normal phase in June, 2020 the spread of the virus began to increase exponentially. As of September 1, the number of confirmed cases is 11,278 and only one month after the number of confirmed patients was 23,308 [1]. Within only one-month West Java experienced a 100% increase in confirmed COVID-19 patients.

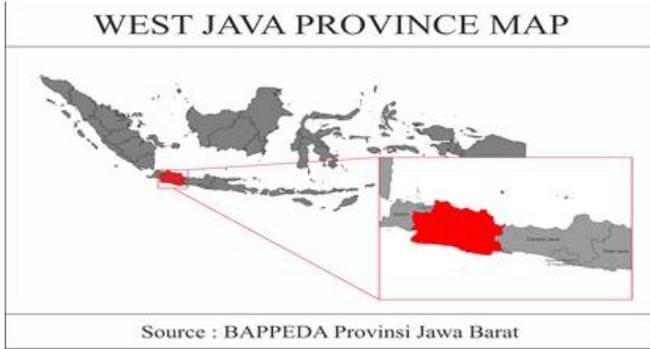


Fig. 1. Map made by authors based on Regional Development Planning Agency of West Java Province (Bappeda) Shape file

The large population is the main obstacle for West Java. The Governor of West Java gave an analogy of how West Java has a population equal to South Korea's, but with only 1% budget and the region is expected to carry out the World Health Organization (WHO) standard in handling COVID-19 [2]. This perfectly reflects the difficulties of West Java as well as regions that share similar demographic conditions in dealing with the pandemic. It is important to note that cases of development in areas with population and density will certainly be different from areas with relatively lower populations. The shortcoming of areas with high population numbers is, for example, the difficulty in meeting the ideal testing percentage. Ideally, West Java should be able to reach 50,000 tests per week following WHO testing recommendations (1 test per 1000 people). The realization of this test is significantly hampered because West Java as a province has limited institutional and medical facilities. It was reported that the region can only do as many as 5,000 tests per day or approximately 35,000 thousand tests per week, nowhere near the ideal WHO standard [3]. Despite the lack of capacity, the West Java Government can overcome this limitation by utilizing local participation in the COVID-19 handling. Donors in the regions have flocked to help the government and affected communities deal with the pandemic by donating 10,000 rapid test kits and care packages across the region [4]. This was welcomed by the government and eventually led to inter-organizational collaboration [5]. The collaboration demonstrates how local participation and local knowledge play no small role in local disaster governance which is often challenged by lack of interest and capacities of local government; oftentimes a reflection of weak local governance capacities [6]. It seems this deficiency can be compensated by the definite benefits of local government which is better local knowledge and faster response time to disasters affecting their localities.

Through the perspective of decentralization, this paper aims to give an elaborated narrative of how West Java governed its COVID-19 outbreak response. The analysis in this study is conducted through qualitative content analysis. The aim of using content analysis in a study is generally to organize and obtain explanation at a conclusion of data collection [7]. Social scientists utilize content analysis to check for patterns in a comprehensive and duplicative manner [8]. In relation to this study, the data used for the content analysis was collected from credible media reports in Indonesia that discusses the development of COVID-19 outbreaks in West Java, from its early phase to today. The first part of this paper is the introduction. The second part is

theoretical framework about decentralization. The third part of this paper focuses on the initial response and countermeasures to the pandemic that were initiated by the West Java Provincial Government (*Pemprov Jabar*) and how the region experienced dramatic changes of COVID-19 cases in the second half of 2020. The fourth part explains the theoretical framework of decentralization in the realm of disaster management. This concept leads us to further understand how decentralization administered itself at local level. All of these sequences' elaboration is to answer the question of "How does West Java govern the response to the COVID-19 pandemic?"

## II. LITERATURE REVIEW

### A. Decentralized Response/Approach to Disaster

Many claims that the decentralization approach at the local government administrative level can improve government's responsiveness and accountability to the public. Decentralization approach is able to change the internal accountability systems of government, or 'chains of command', apart from noting that the state government plays a key role in enabling local government by providing leadership [9].

However, when it comes to managing a sudden crisis or disaster, it is an undeniable fact that the local government in some cases got constrained by the lack of local capacity. Research by Artiningsih et al., [10], analyzes the challenge of disaster governance in Semarang, a multi-hazard disaster city in Indonesia [10]. Through this research, they discovered that a lack of Semarang government's capacity in handling flood and dengue fever got covered by a collaborative community on grass root level. They initiated and implemented a disaster preparedness system called Piloting Implementation Program to prepare and resilient from flood and dengue fever [10]. Despite the gap between local government and its handling of a crisis, the findings about the local community capacity in preparing to deal with a crisis illustrate how multi-actors such as communities can be a prospective key actor in supporting the local government for better disaster management.

According to a research by Bae et al., [11] regarding a decentralization approach and collaborative disaster governance in South Korea, it is important to initiate a collaborative action for effective disaster management [11]. They propose filling the gap of the low local government capacities in disaster management with a strong collaboration between interorganizational, academics, and communities. They stated that these non-governmental local actors' participation in responding to a disaster or a crisis with their specialized knowledge and local networks, is valuable assets that the local government could tap into during disaster response and resilience building efforts [11].

On the other hand, some literature fails to discuss whether participation – even if increased – actually leads to greater reform that helps poor people and improves accountability. Larson and Ribot [12] analyze democratic decentralization as problematic in the central resistance and local demand. They argue even though decentralization approaches increased participation, it is not enough to improve "service delivery" to accommodate both the state government and the

marginalized group [12]. In terms of disaster management, the literature shows there is little reason to assume that decentralized governance structures automatically lead to more participation in either disaster management. However, if there is little disaster management awareness among the population, accompanying disaster risk reduction education and awareness campaigns will be needed to increase the likelihood of participatory disaster management. This research is expected to identify the gap concerning disaster management systems operating at the local level. In spite of its various limitations, local governments can be a proactive and responsive actor to develop disaster management systems for the people.

### III. HOW WEST JAVA PROVINCE RESPONDS TO COVID-19 OUTBREAK

#### A. Containment Measures that Have Been Deployed by West Java

During the first emergence of COVID-19 outbreak in Indonesia, West Java was one of the most responsive regional governments in handling the pandemic, to the point that its strategies were given commendation by the United Nations Development Programme (UNDP). On account of that commendation, UNDP Indonesia documented the West Java government's effort and responses to contain the spread of COVID-19 pandemic, which was consisted of five main policy principles: 1. proactive government; 2. transparent government; 3. science-based policy advice; 4. innovative government; and 5. collaborative government. UNDP Indonesia also announced that the West Java's response in relation to COVID-19 pandemic can be adapted as a lesson and mitigation framework for other regions in Indonesia and Asia-Pacific [13].

In relation to the said positive perception, the West Java Government had a clear framework for handling the COVID-19 pandemic in three steps. The first step was the prevention strategy. In West Java, the imposition of Large-Scale Social Restrictions (*Pembatasan Sosial Berskala Besar/PSBB*) can be divided into two: 1. PSBB Bandung Raya (Bandung Metropolitan Area), which was later continued into PSBB Jawa Barat (West Java); and 2. PSBB Bodebek. West Java Governor Decree 27/2009 regulated the imposition and guideline of PSBB for Bogor Regency, Bogor City, Depok City, Bekasi Regency, and Bekasi City. The early PSBB that was implemented in Bogor, Depok, Bekasi started from April 15<sup>th</sup>, 2020 and ended on August 31<sup>st</sup>, 2020. Due to the fact that Bogor, Bekasi, and Depok are the main satellite cities of DKI Jakarta, its PSBB imposition was adjusted to the timeline of PSBB Jakarta, hence they have their own different timeline in West Java. Meanwhile, the PSBB that was imposed in the Bandung Metropolitan Area was regulated by West Java Governor Decree 30/2020. The PSBB that was imposed in Bandung Metropolitan Area lasted from April 22<sup>th</sup>, 2020 to May 5<sup>th</sup>, 2020. However, following the end of PSBB Bandung Raya, PSBB Jawa Barat (which was imposed for 27 regencies and cities in West Java, scaled up from only 5 cities and regencies in West Java) replaced it, and it lasted from May 6<sup>th</sup> 2020 to June 26<sup>th</sup> 2020.

The second step was the strategy of tracking, tracing, and testing. During April 2020, West Java had the highest number of COVID-19 tests conducted, and the number was as high as

110.000 tests, mainly done with Rapid Diagnostic Test (RDT). The West Java government also prioritized advice from experts and epidemiologists and also followed the guidance that PCR tests have to be conducted on 0.6 percent of the population [13].

The third step was the treatment strategy. The government of West Java claimed that they have outlined scenarios in case when COVID-19 cases soar to 100 cases, 1.000 cases, and even 10.000 cases [13]. The government of West Java has also developed an application named PIKOBAR (COVID-19 information and coordination center) that can be accessed via a webpage and mobile application. These open-source apps "provide data and visualization that allows citizens to access the latest cases of the disease, submit requests for help, access emergency numbers, clarify misinformation, and so on".

#### B. What Causes the COVID-19 Outbreak to Soar in the Second-Hal of 2020

Entering August following the PSBB restrictions lift, West Java COVID-19 cases have been experiencing resurgence. The resurgence of COVID-19 outbreak clusters in West Java especially, often occurs in high density urban areas, such as the cities of Bogor, Bekasi, Depok, Bandung, and Cirebon. Bodebek, due to its function that essentially serves as the satellite cities of Jakarta and its high community mobility, puts it at a higher risk for the virus transmission. When this paper was being written, Jakarta COVID-19 cases are skyrocketing from office infection clusters. In addition, because a substantial proportion of office workers in Jakarta lives in its satellite cities (i.e. Bogor, Depok, and Bekasi), COVID-19 outbreak emergence in office clusters will also accelerate the rate of infection at those office worker's homes too.

The relaxation of PSBB restrictions which signals the new normal period in the region could be the main cause of the resurgence of COVID-19 cases in West Java. In June, 2020 the province has officially embarked in the new normal period where business and offices are allowed to reopen provided certain conditions are met. This decision is rather problematic because West Java's Reproduction Rate (Rt) is nowhere near the World Health Organization (WHO) standard [14] for new normal openings. Consequently, as previously mentioned the new normal period incite the creation of several new transmission clusters such as family and office clusters [15]. It is also worth pointing out that the increased numbers of cases are also due to suboptimal contact tracing that fails to accommodate rapid transmission rate. Additionally, the greater frequency of testing compared to previous months also contributed to the increase in the number of confirmed cases [16]. Though, this could signify that the precedent numbers are bound to be higher.

The rush to open up the region and limited capacity in conducting massive testing early on seem to be the main reasons why the COVID-19 cases in West Java can increase exponentially in just a few months. Amid hike in COVID-19 cases between August and September across the country, there has been little to no signal from the central government to reimpose PSBB restriction policy which prevents West Java to regain control of the virus transmission. This attitude of de-emphasize crisis appears to be the biggest shortcoming of Indonesia COVID-19 handling. Considering PSSB restriction policy is still subject to central government, it significantly hampers not only West Java but all Indonesia local

governments to enact health quarantine when a public health emergency occurs.

#### IV. WEST JAVA'S DECENTRALIZED APPROACH TO COVID-19 OUTBREAK

##### A. *Decentralized Mechanism as Leverage to Govern the Outbreak Response*

Since the President of the Republic of Indonesia officially stated that COVID-19 has emerged in Indonesia on March 2<sup>nd</sup>, the West Java Governor immediately declared a state of alert for the area of West Java. The fastest step taken by governor at that time was to establish a Coronavirus Disease-19 (COVID-19) information and coordination center for all regencies and cities in West Java [17], distributed through the West Java Governor Handbill No. 443/22/HUKHAM on March 4<sup>th</sup>. Moreover, Ridwan Kamil explained to the public that the West Java Government has aforementioned five policies regarding the response to the COVID-19 outbreak (proactive policies, transparency, data and science oriented, innovative government, collaborative government) [13]. Transparency is an act of the decentralization principle, since the local government in general understand the needs of the people they provide a better and faster information than the central government when it comes to a disaster management in a certain region [18]. The COVID-19 outbreak is a critical non-natural disaster that needs a decentralization act by the local government, who is more likely to utilize the regional budget and public funds effectively to save most of its citizens. The third part will explain how West Java exercises the principle of decentralization in handling COVID-19 in its region.

The principle of decentralization is indeed an important element in the context of disaster management. Even though the local government has a fundamental role in a disaster management, the local government still need to collaborate with multi-actors inside the region such as local companies, local communities, and non-governmental organizations in order to response actively and immediately to the public's needs during a disaster occurred [11]. In this case, West Java's government acknowledges that they are not the only one who knows how a disaster has resulted in a vulnerability of their regions, a collaboration is one of the five policies in responding to COVID-19 outbreak. One of the examples is the Buddhist Tzu Chi Foundation, a faith-based organization, donated 50% of the Rapid Diagnostic Test (RDT) in West Java. Also, West Java's government supported by state-own enterprises located in the region, e.g. PT. Biofarma to produce a Polymerase Chain Reaction (PCR) test, PT. Dirgantara and PT. Pindad to make ventilators for hospitals needed some extra ventilators.

Even though the resilience of West Java in COVID-19 response still needs improvement due to the case is still increasing in a large number, the local government shows substantial progress by being the first province in Indonesia that executes a PCR test method which the local government bought from South Korea. It shows that decentralization is an opportunity for local governments to manage disaster policy more broadly [19].

These five policies of responding to the COVID-19 outbreak from the West Java government show that there is a silver-lining in the local government of Indonesia managing

the COVID-19 outbreak. West Java government's COVID-19 five policies had integrated into a comprehensive disaster management initiative, aiming to make a timely and efficient response possible. This case demonstrates that it is possible to strengthen the local government capacity for improving the quality of disaster management services for the people.

##### B. *Challenges for Decentralized Approach*

As mentioned above decentralization is believed to contribute to good disaster governance by giving deliberate space for subnational government to bring local perspectives and knowledge through local actor participation. Decentralization is further believed to advance disaster management activities and disaster and disaster risk manifest themselves locally [20]. In Indonesia, because the region is heavily exposed to wide potential of disasters, the paradigm of disaster management has begun to shift to a decentralized system, this is manifested by the formation of Regional Disaster Management Agencies in various provinces in Indonesia. The handling of COVID-19 is no exception to this manifesto. In Indonesia the governance of COVID-19 creates multidimensional relations between central and subnational governments. The regional autonomy principle encompasses both entities to collaborate and synergize to accelerate tactical responses. Nonetheless, in developing countries, the lack of local capacity (e.g. lack of financial, human and technical resources for disaster management) is growing to become a legitimate concern [11]. Additionally, overlapping authorities also present a separate challenge for a decentralized system. In nature, vertical relations embedded within the system making power and exclusive authority for lower tiers government sometimes futile.

During the second half of 2020, West Java's response was conceived to be the best for COVID-19 handling in Indonesia. Various actors including the central government and UNDP give positive appraisal towards West Java strategy [21]. Despite everything the region is still struggling with high demand for medical and health facilities that have significantly increased due to COVID-19. Several news outlets have reported that health facilities such as laboratories and human resources for PCR test are still limited and thus West Java is still unable to meet WHO test standard (1% test/thousand populations per week or roughly 50.000/week) [3], [22]. On a positive note in the sixth month of the outbreak only 44% of the total of 4,094 isolation beds across the province were used for COVID-19, despite the increase of average daily cases. Furthermore, in combating the virus West Java also demonstrates how local participation plays an essential part in improving government responsiveness [23]. Amidst limited test equipment, the Buddhist Tzu Chi Foundation donated 50,000 units of rapid test and hundreds of care packages for poor communities in one of the municipalities [24][25]. Responding to this the provincial government mobilizes a regional apparatus for assisting the organization in their assistance program, which eventually led to inter-institutions collaboration. As disaster risk manifests itself locally, subnational/local governments often have better understanding of unique local needs and assets than higher levels of government [11] and it therefore has comparatively better capacity to use local resources at better extent.

Another problem arising from a decentralized system is the coordination of government apparatus and the multilevel synergy. It is important to note that coordination and conflict

of interest is a rather common problem when it comes to bureaucracy. Though, the presence of a decentralized system often complicates the already complex bureaucratic conditions. The COVID-19 handling in Indonesia is a prime example of how decentralization leads to suboptimal outputs due to colliding authority within the bureaucracy.

It is important to know that decentralization cannot be translated as total deconcentration of authority from central to local government, Vasquez (2011) enunciate decentralization does not necessarily denote an erosion of central control, instead it facilitates for a separate vertical spheres of political, administrative and fiscal dimension to operate [26]. In Indonesia, although decentralization allows local governments to govern themselves, they are not a wholly separate political entity from the central government. As stated in Law 23/2014 on Local Government [27], decentralization is the transfer of government affairs by the central government to the regions, in other words the local government here is a subsidiary or an extension of the central government's authority which to some extent still has to comply with the central.

In the second half of 2020, the local governments, including West Java, were repeatedly warned by the central government not to impose their own partial lockdown (also known as regional lockdown) policy, despite the looming fear of rapid virus transmission. Although the implementation of regional lockdown primarily aims to protect local residents by curbing virus transmission through regional isolation, the policy is deemed unlawful in accordance to Law 6/2018 about Health Quarantine as the enforcement of health quarantine is an absolute right of the central government [28]. The issuance of Ministerial Regulation 9/20 about PSBB guidelines also does not seem to solve the previous problem and instead invoke yet another bureaucratic problem. The complexity of the bureaucracy related to procedures and requirement for obtaining permits to implement PSBB in the regions is one of many hindrances for local governments to respond the outbreak in a timely manner. And these bureaucratic and coordination problems seem to be a lingering problem in Indonesia's decentralization governance system.

## V. CONCLUSION

Indonesia is a democratic country that has embarked on a decentralized system in its disaster governance, including in handling COVID-19. West Java is one of the regions that demonstrates how decentralization plays out in its region. In West Java, amid a high spike in COVID-19 cases and limited facilities for local participation and knowledge, it is proven that it can help local governments to overcome obstacles encountered in the handling of COVID-19. Local participation and knowledge are benefits of a decentralized system that can compensate for its shortcomings, namely limited capacity. West Java demonstrates how decentralization principle come into play in the COVID-19 handling. As the region with the largest population in Indonesia, West Java has limited capacities such as technical skills and budget. To compensate for this shortage, West Java utilizes assistance from local communities and companies (such as the Buddhist Tzu Chi Foundation and also PT. Pindad). This interaction later became a multi-stakeholder collaboration that helps West Java with weather the impact of COVID-19. Furthermore, it is important to recognized that there is a drawback that are

rooted in decentralization system, namely overlapping authorities and limited control of local governments because local governments are still subject to control from the central government. In the case of West Java. This limitation can be seen from how the complex bureaucracy in Indonesia prevents West Java from providing a more effective response. Thus, a refinement of streamlined coordination measures in the face of crisis is extremely needed to increase both regional and national self-reliance and preparedness against large-scale disaster.

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## REFERENCES

- [1] Pusat Informasi dan Koordinasi COVID-19 (PIKOBAR), "Dashboard statistik kasus Covid-19 Provinsi Jawa Barat," *PIKOBAR*, Oct. 02, 2020. <https://pikobar.jabarprov.go.id/data> (accessed Oct. 02, 2020).
- [2] P. Ariefana and S. Aranditio, "Ridwan kamil sadar tes COVID-19 di Jabar tak mampu lebih baik dari Jakarta," *Suara Jabar*, Sep. 04, 2020. <https://jabar.suara.com/read/2020/09/04/123214/ridwan-kamil-sadar-tes-covid-19-di-jabar-tak-mampu-lebih-baik-dari-jakarta?page=all> (accessed Oct. 02, 2020).
- [3] W. W. Pamungkas, "Kapasitas lab Jabar mentok, Ridwan Kamil usul tes Covid-19 libatkan swasta," *Bisnis Bandung*, Aug. 06, 2020. <https://bandung.bisnis.com/read/20200806/549/1275875/kapasitas-lab-jabar-mentok-ridwan-kamil-usul-tes-covid-19-libatkan-swasta> (accessed Oct. 02, 2020).
- [4] Tim COVID-19 Filantropi, "Kiprah yayasan Tzu Chi Indonesia atasi pandemi COVID-19," *Filantropi Tanggap COVID-19*, Jun. 17, 2020. <https://covid19filantropi.id/kiprah-yayasan-tzu-chi-indonesia-atasi-pandemi-covid-19/> (accessed Oct. 02, 2020).
- [5] Galvan, "Kolaborasi Tzu Chi, TNI, Polri dan Pemrov Jabar dalam penyaluran sembako," *Yayasan Buddha Tzu Chi Indonesia*, May 26, 2020. <http://www.tzuchi.or.id/read-berita/kolaborasi-tzu-chi-tni-polri-dan-pemprov-jabar-dalam-penyalaran-sembaka/9010> (accessed Oct. 02, 2020).
- [6] ISDR, ITC, UNDP, and UN, "Local governments and disaster risk reduction good practices and lessons learned a contribution to the 'Making Cities Resilient' Campaign 2010," Geneva, 2010.
- [7] M. Bengtsson, "How to plan and perform a qualitative study using content analysis," *NursingPlus Open*, 2016, doi: 10.1016/j.npls.2016.01.001.
- [8] H. Parveen and N. Showkat, "Content analysis," *Pathshala*, no. July, 2017.
- [9] P. Aubrecht, J. Essink, M. Kovac, and A.-S. Vandenberghe, "Centralized and decentralized responses to COVID-19 in federal systems: US and EU comparisons," *SSRN Electron. J.*, 2020, doi: 10.2139/ssrn.3584182.
- [10] Artiningsih, J. S. Setyono, and R. K. Yuniartanti, "The challenges of disaster governance in an Indonesian multi-hazards city: A case of Semarang, Central Java," *Procedia - Soc. Behav. Sci.*, 2016, doi: 10.1016/j.sbspro.2016.06.081.
- [11] Y. Bae, Y. M. Joo, and S. Y. Won, "Decentralization and collaborative disaster governance: Evidence from South Korea," *Habitat Int.*, 2016, doi: 10.1016/j.habitatint.2015.08.027.
- [12] A. M. Larson and J. C. Ribot, "Democratic decentralisation through a natural resource lens: An introduction," *Eur. J. Dev. Res.*, 2004, doi: 10.1080/09578810410001688707.
- [13] F. U. Safuroh, "UNDP Puji kinerja tangani COVID-19, Pemrov Jabar sebut 5 strategi ini," *Detik News*, Apr. 27, 2020. <https://news.detik.com/berita/d-4993289/undp-puji-kinerja-tangani-covid-19-pemprov-jabar-sebut-5-strategi-ini> (accessed Oct. 02, 2020).

- [14] R. Tuasikal, "Jabar berlakukan 'New Normal' meski belum capai standar WHO," *VOA Indonesia*, May 28, 2020. <https://www.voaindonesia.com/a/jabar-berlakukan-new-normal-meski-belum-capai-standar-who-/5438967.html> (accessed Oct. 02, 2020).
- [15] Tribun Jabar, "Klaster keluarga tularkan Covid-19 tren di Bogor, total kasus 445, Bandung tren klaster perkantoran," *Tribun Jabar*, Aug. 20, 2020. <https://jabar.tribunnews.com/2020/08/20/klaster-keluarga-tularkan-covid-19-tren-di-bogor-total-kasus-445-bandung-tren-klaster-perkantoran> (accessed Oct. 02, 2020).
- [16] Y. Astutik, "Diam-diam, kasus Covid-19 di Jawa Barat terus meningkat," *CNBC Indonesia*, Aug. 10, 2020. <https://www.cnbcindonesia.com/tech/20200810154959-37-178714/diam-diam-kasus-covid-19-di-jawa-barat-terus-meningkat> (accessed Oct. 02, 2020).
- [17] Y. Maulana, "Jejak Ridwan Kamil tangani COVID-19 di Jawa Barat," *Detik News*, Jul. 08, 2020. <https://news.detik.com/berita-jawa-barat/d-5084553/jejak-ridwan-kamil-tangani-covid-19-di-jawa-barat> (accessed Oct. 02, 2020).
- [18] D. I. Putra and M. Matsuyuki, "Disaster management following decentralization in Indonesia: Regulation, institutional establishment, planning, and budgeting," *J. Disaster Res.*, 2019, doi: 10.20965/JDR.2019.P0173.
- [19] A. Rumbach, "Decentralization and small cities: Towards more effective urban disaster governance?," *Habitat Int.*, 2016, doi: 10.1016/j.habitatint.2015.08.026.
- [20] H. Hermansson, "Challenges to decentralization of disaster management in Turkey: The role of political-administrative context," *Int. J. Public Adm.*, 2019, doi: 10.1080/01900692.2018.1466898.
- [21] N. Nurulliah, "Pengamat: Ada lima faktor yang membuat Jawa Barat terdepan dalam penanganan Covid-19," *Pikiran Rakyat*, May 04, 2020. <https://www.pikiran-rakyat.com/jawa-barat/pr-01376149/pengamat-ada-lima-faktor-yang-membuat-jawa-barat-terdepan-dalam-penanganan-covid-19?page=2> (accessed Oct. 02, 2020).
- [22] Y. Maulana, "Jokowi sorot COVID-19 di Jabar, Gugus Tugas akui kekurangan 'tip' swab test," *Detik News*, Jul. 14, 2020. <https://news.detik.com/berita-jawa-barat/d-5093325/jokowi-sorot-covid-19-di-jabar-gugus-tugas-akui-kekurangan-tip-swab-test> (accessed Oct. 02, 2020).
- [23] Jakarta Post, "West Java offers hospitals for COVID-19 patients if Jakarta overwhelmed - National - The Jakarta Post," *Jakarta Post*, Sep. 12, 2020. <https://www.thejakartapost.com/news/2020/09/12/west-java-offers-hospitals-for-covid-19-patients-if-jakarta-overwhelmed.html> (accessed Oct. 02, 2020).
- [24] Galvan, "Bersama-sama mengatasi meringankan Covid-19," *Tzu Chi*, May 20, 2020. <http://www.tzuchi.or.id/read-berita/bersama-sama-mengatasi-meringankan-covid-19/9006> (accessed Oct. 02, 2020).
- [25] D. Ramdhani and F. Assifa, "Strategi Jabar tangani pandemi Covid-19 hingga raih penghargaan" *Kompas*, Jun. 27, 2020. <https://bandung.kompas.com/read/2020/06/27/07341861/strategi-jabar-tangani-pandemi-covid-19-hingga-raih-penghargaan?page=all> (accessed Oct. 02, 2020).
- [26] J. Martinez-Vazquez, "The impact of fiscal decentralization. issues in theory and challenges in practice," *ADB*, 2011, doi: 10.1142/S1793993310000160.
- [27] President of the Republic of Indonesia, *Law no. 23/2014 concerning Local Government*. Indonesia, 2014.
- [28] Ministry of State Secretariat of the Republic of Indonesia, *Law No. 6/2018 concerning Health Quarantine*. Indonesia, 2018, pp. 31–34.