Public issues in waste affairs in the pandemic era as a challenge for agile bureaucracy

by Dwiyanto Indiahono

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Abstract. The era of the COVID-19 pandemic has encouraged residents to stay at home and reduce social mobility. Work and study activities are carried out as much as possible at home. One of the phenomena that emerged in this phase was the increase in household waste and medical waste. This article aims to reveal what public issues arise from the increase in household and medical waste during the pandemic. Qualitative research methods have been carried out by collecting data from online mass media, interviews, and observations. The results show that the increase in household waste and medical waste raised new public issues: special processing of medical waste, the safety of waste officers, health insurance for waste officers, and adjustment of volume-based waste fee system (VWF). Agile bureaucracy must respond quickly to this phenomenon so that public problems can be resolved immediately. Bureaucracies have to get out of their comfort zone to deal with complex general problems, move faster and different than usual.

1. Introduction

The COVID-19 pandemic that hit Indonesia and the world has made many changes to the new way of life. Many government agendas have to be replaced suddenly to anticipate new problems that arise due to COVID-19. All the focus of government activities seems to be only to overcome the harmful impact of the COVID-19 Pandemic.

The program to prevent the spread of COVID-19 is the main program to save the safety and lives of citizens. The massive program that applied massively is the program encouraging residents to use masks, diligently washing hands with soap in running water, maintaining distance, avoiding crowds, and reducing social mobility. In addition, the government encourages work, study, and worship activities to be temporarily carried out at their respective homes. In this context, it turns out that encouraging residents to stay at home has stimulated an increase in household waste and medical waste in people's homes. The context of the problem of increasing household waste and household medical waste also occurs in Central Java. The increase in household waste was caused by changes in consumption behaviour from offline/offline transactions to online/online transactions [1–3]. Many residents buy basic needs (clothing and food) online. As a result, initially, food did not use wrappers when consumed in restaurants; now, food packaging waste has piled up in people's homes. The Ministry of Environment and Forestry noted that in Indonesia during April-May 2020, online shopping transactions increased 1-10 times per month, transactions in the form of packages rose 62 percent, and food delivery services rose 47 percent. It triggers the consumption and production of plastic waste to increase [4]. It, of course,

has an impact on health and environmental burden. In addition, residents who isolate themselves at home are also vulnerable to producing medical waste (such as masks) and throwing away the household medical waste without processing it first. At the same time, medical waste is an infectious type of waste that can transmit COVID-19 to residents and waste processing officers. According to the Ministry of Environment and Forestry, the total medical waste in Indonesia is 7,502.79 tons from the beginning of the pandemic until February 9, 2021 [5].

The increase in the volume of household waste and household medical waste has thus become a new public problem in the Era of the Pandemic. Any further general issues that arise from this waste issue are fascinating to study. Several studies on waste in the era of the COVID-19 pandemic in Indonesia have been carried out, among others, that the closure of waste banks worsens the condition of the lower middle class [6], household waste has doubled during the pandemic, especially for the upper and middle class [7], waste personal protective equipment (PPE) has supplied 15 percent of the waste in 2 rivers in Jakarta [8]. These studies provide a severe picture of the waste issue, and no one has yet connected it to the character of the bureaucracy that can solve it. It is important to study so that the bureaucracy can respond to these public issues, pay serious attention to them, and be included in the government's policy agenda quickly. Agile bureaucracy has new challenges in the waste problem in this pandemic era.

2. Methodology

Research on public issues in the waste problem is carried out using qualitative research methods. Data collection techniques were carried out through documentation, interviews, and observations. Documentation techniques are carried out by collecting data from online mass media and official websites from the government. Interviews were conducted with waste management officers. Observations were made at several community-managed waste management sites. This research has been looking for information to informants related to public problems in the pandemic era and how the government can take the solutions. The triangulation technique has been carried out by comparing the findings in one data source with findings from other data sources so that the level of confidence in the research results is at a high level [9]. Interactive data analysis techniques are carried out by condensing data, displaying data, selecting data relevant to the research focus, and drawing conclusions based on the findings of the research field [10].

3. Results and discussion

3.1. Public issues in waste affairs in the pandemic era

The increase in the volume of household waste and medical waste from households has become a new public problem in the Pandemic Era [11–13]. The volume of household waste and medical waste from households gives rise to several further problems, such as:

First, special processing of medical waste. In the Pandemic Era, household waste did not only produce more households, more than that, but households also contributed much medical waste. Medical waste such as masks, gloves, face shields, and medicine packs is familiar in household waste. Education to residents about the importance of sterilizing medical waste before throwing it into the residents' trash cans is still minimal, and even if there are residents who already know, they do not do it seriously [14]. This phenomenon should undoubtedly be an extra concern for waste management officers, both officers who pick up garbage from house to house and officers at the landfill. They must be educated that medical waste should not be underestimated, medical waste must be treated differently from other similar waste, and its processing must also be ensured to be safe for public health and safety. Household medical waste must be cleaned immediately by incineration [15–17]. Residents are not used to doing activities, such as collecting disposable masks from households, carrying out disinfection, cutting and changing the shape of masks, so they are not misused, wrapping tightly with plastic and labelling infectious waste, throwing them in the trash and washing hands thoroughly after carrying out waste management activities.

Second, the safety of waste management officers and health insurance for waste management officers. After the medical waste from the household is disposed of in the domestic waste bin, the waste will undergo a waste management process by the waste management officer. Household medical waste, especially from residents who are undergoing self-isolation at home, of course, becomes infectious waste that must be managed carefully. Waste management officers have the risk of contracting medical waste generated by households [18]. Therefore, waste management officers need to receive education on safe household medical waste management techniques. Waste management officers must also be equipped with personal protective equipment when dealing with household medical waste. The expenditure of personal protective equipment for waste officers when dealing with household medical waste should be the government's responsibility and is included in the additional budget of the waste management office at the local level. It is essential because relying on the financial capacity of waste management officers is undoubtedly not possible. In addition to getting an education and personal protective equipment when dealing with household medical waste, waste management officers in this Pandemic Era must also get health insurance [19]. This health insurance is important because while they risk being infected from household medical waste, they are also vulnerable to contracting it from members of the community they serve. Those who have to keep circulating clean the environment will undoubtedly contact many people, and the risk of infection becomes very large. Health insurance for waste management officers will be a rescue if they are confirmed positive and must undergo treatment. Providing health insurance to waste management officers will also increase welfare and make officers happy, and increase immunity.

Third, the adjustment of the volume-based waste fee system (VWF). During this pandemic era, the volume of household waste has increased significantly. The government at the local level must provide solutions to manage this increasing household waste in an integrated manner. The government must educate the importance of reuse, reduce, and recycle (3Rs) to reduce the volume of waste from residents' domestic areas [20], and think of effective and efficient ways to manage the waste. The costs incurred by the government to manage increasing waste will undoubtedly increase, so the government or waste managers should consider options for implementing a volume-based waste fee system (VWF) on the volume produced by households. The option of adjusting tariffs based on volume is certainly not easy, but it is more just and educational at the same time. More equitable because residents who produce more waste will be given a more significant burden than residents who produce less waste. Justice is an essential value in public policy [21,22]. In addition, residents will think again about disposing of waste [23–25], and this is a form of education that the more waste produced, the more costs incurred to manage it.

3.2. Agile bureaucracy for public issues in waste affairs in the pandemic era

The waste problem in this Pandemic Era turns out to be very fast and dynamic. Bureaucracies, including waste managers, will find rapid environmental changes. Therefore, the bureaucracy must be agile. Waste managers must get out of their comfort zone and move faster than normal conditions to anticipate an increasingly complex policy environment [26–29]. Public issues regarding medical waste processing, safety and health insurance for waste officers, and adjustment of volume-based waste fee system (VWF) are concrete examples of how the waste management bureaucracy should not rely solely on old solutions to deal with waste problems have changed rapidly and required solutions. Agile bureaucracy must provide many studies as evidence before taking a policy [21,30,31]. It is essential because policy as a solution to new public problems in this pandemic era must meet substance, juridical and sociological rationality. In addition, policy-making must also pay attention to the development of science and technology, which can help the bureaucracy solve public problems.

4. Conclusion

At least three further public issues have arisen due to the increase in household waste and household medical waste in this Pandemic Era: medical waste processing, safety and health insurance for waste officers, and adjustment of volume-based waste fee system (VWF). These emerging problems must be

addressed by the bureaucracy quickly and develop evidence-based solutions. Therefore, an agile bureaucracy is needed that can recognize problems, read opportunities, and take actions or policies that can be accounted for rationally, scientifically, and democratically.

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