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Who Owns Big Data? Examine the Policies of Rural Government in Indonesia

Iffan Gallant El Muhammady, Antun Mardiyanta, Ahmad Suryono, Haressa Lintang Rizkika

INTRODUCTION

Rural government in Indonesia is regulated by Law Number 6 of 2014 concerning rural government. The law aims to regulate the village's system so as to provide legal certainty over the constitutional system of the country in order to ensure justice for all Indonesian people. On the other hand, the purpose of the Rural Government's Law is to promote cultural wisdom by improving public services so that they can be efficiently and effectively used by everyone. The results will strengthen socio-cultural resilience and advance the economic system of rural communities (Sutoro Eko, 2015).

The important component for us to look at together is the last point of number 6 of the 2014 law, which is said to "to strengthen the rural communities as the main subjects of development." This law means that the rural community actually has the ability to regulate its own government. So that the they are not only the object but also the main players in the rural 's development (Abdul Fatah Fanani & Ibrahim, 2018; Puskapol Fisip Universitas Indonesia, 2016).

Due to this law, rural development is not only about material things but also includes immaterial development in all aspects. Examples of material development are things such as roads, bridges, or irrigation. While education among rural villagers is an example of immaterial development. For this reason, to build a good rural community the rural government must knows what the people's need. In addition the rural government must have acknolwledgement about conditions of the rural such as geographic and demographic system. It can be useful for the goverments because they can identify resources for creating opportunities and increasing social welfare. While understanding the demographic conditions can be useful to recognize the people's needed to maintain their sustainable prosperity.

As a result, the government conducts policies that are based on what the people needs. For example, if the rural has an agrarian landscape, the government can make rural policies that support agriculture and plantations. Those policies, such as procurement of agricultural fertilizers, pesticide provisions to deal with pests, or regulating good rice field irrigation. Another example, if the rural has a landscape that consists of sea and beach areas, they can make policies that regulate the construction of a dock for fishing boats, the procurement of fishing nets, assistance in the procurement of fishing boats, or perhaps make a warehouse for storing ice and fish. Thus, the decision-making in the form of policies must be in accordance with the conditions and situations unique to their community.

Today's technological developments have brought the world in a new direction, including government decision-making. Nowadays, technology brings us a slick approach to deciding policies that are in accordance with the community's needs (Hilbert, 2013; Höchtl et al., 2016; Mills et al., 2022). Decision making which incidentally is in the political sphere, nowadays closely related to technology. The policies taken are based on big data analysis (Maryanto, 2017; Sirait, 2016). The sectors also vary, such as communication, health, education and training, smart cities projects, public services and cultures (Ali, 2020; Hakim et al., 2021; Kusumasari et al., 2017; Manshur, 2021; Sedayu & Andriyansah, 2021; Wahyudin, 2018; Wiguna et al., 2020).

However, the use of big data is also not failure free. What Nugraha said above is interesting to review. Who has the power to own big data that influences policy? The same question was asked in a similar study but carried out in another country (Rees, 2014). The research that has been conducted has been carried out on various

subjects like communication, health, intellectual property rights, law, data security, and data privacy (Desouza & Jacob, 2017; Fadler & Legner, 2020; Hilbert, 2013; Kostkova et al., 2016; Saxby, 2014). Eventually, this study tries to answer who has the power to own big data in Indonesia and how rural government politics uses big data to make policies in rural government.

METHODS

This study uses the content analysis method through literature study, observation, and interviews. Data interviews were collected from subjects who were directly and indirectly involved in policy making at the rural level. They are directly involved because they have duties and functions as rural government officials. Meanwhile, those who are not directly involved are the people affected by the policy. Because of the confidentiality principle, we are not revealing the names of the subjects in this study or the name of the region. Interviews were conducted to answer these questions; (1) How did the village government implement big data-driven policies? (2) What is the impact of big data policies on society? (3) What are the problems that will arise due to big data? According to researchers, by answering these questions, it will aim to answer the main question of this research, "Who controls big data?"

RESULTS AND DISCUSSION

Rural Government Work Plan

Rural policies are regulated within Law Number 6 of 2014, Chapters 79 and 80, which explains rural planning. The policy is outlined in the Rural Government Work Plan as guidance for preparing rural revenue and budgets. The Rural Government Work Plan is conducted by involving people. The participation of the rural community is contained in an event called Musyawarah Pembagunan Masyarakat Desa (Musrembangdes) held by the rural government.

The rural government invites the rural community and rural representatives (Badan Permusyawaratan Desa / BPD) to prepare a Rural Government Work Plan. Together, they identify problems in their community. Among these problems, they

measured and then carried out a priority scale of those problems. They generated some solutions to the problem and proposed form activities that were agreed upon, and in the end, it became the Rural Development Work Plan.

The Impact of Big Data-Driven Policies

The preparation of the Rural Government Work Plan according to Law Number 6 of 2014 requires appropriate data resources as a suggestion in deciding policies at Musrembangdes. Therefore, the data that is collected based on the factual, valid, and reliable conditions of the rural community is the main requirement so that the data can be useful.

For this reason, the government has developed an application platform that can capture data in the hope that it can be used for proper decision-making.

Officers who collect data (enumerators) are taken from residents who serve as representatives of their sub-district. From this research, it is concluded that there are two ways to collect data. In the first method, enumerators use their own cellphones to install an application. Then they visited people, asked questions, and filled data into their cellphones. On the other hand, enumerators could use an offline method. This method works by asking the people some questions (questionnaires) that must be filled out by themselves. Then the people must collect that data and give it to the main operator, who is located in a rural office. Furthermore, the operator must put the data into an application that has been installed on a cellphone or computer.

Thus, it turns out that the first method encountered many obstacles. Firstly, there are problems with the internet signal in rural areas, which sometimes have limited access. Secondly, the mobile phone or cellphone that is owned by the enumerator is personal property. Typically, their mobile phones lack the specifications and are unable to run the program or application that must be installed. Thirdly, sometimes the application has weaknesses or bad services. So, when they entered data, application delays occurred, or even suddenly, there was data loss. Fourthly, those applications' interfaces are not user-friendly, so they aren't simple enough to use. It's very hard for enumerators to use because they have to go in and out of root many times. In addition to the fifth problem, not all enumerators have the same skills due to limited human resources.

TABEL 18.1 The Rural Community Data Collection Application Table

No.	Application Name		Description of the Application	Institution	Intensity	Website
1	IDM	Indeks Desa Membangun	To obtain information formed from the Social Resilience index, the Economic Resilience Index and the Ecological Resilience Index	Kementrian Desa PDT dan Transmigrasi	Once a year	https://idm.kemendesa.go.id/
2	Prodeskel	Profil Desa Kelurahan	Is one of the referrals planning systems for village and sub-district development and all development joints in villages and sub-districts	Kemendagri	Once a month	http://prodeskel.binapemdes.kemendagri.go.id/
3	EPDesKel	Evaluasi Perkembangan Desa/ Kelurahan	This application is to fill out the Village and Sub-District Development Evaluation to determine the status of the village development level.	Kemendagri	Once a month	http://epdeskel.kemendagri.go.id/
4	DDC	Data Desa Center	DDC (Village Data Center) is a village monitoring application and various matters related to the village.	Provinsi Jawa Timur	Once a year	https://datadesacenter.dpmd.jatimprov.go.id/
5	SIPADES	Sistem Pengelolaan Aset Desa	SIPADES is an information system-based village asset administration planning application starting from the planning, procurement, administration to report presentation	Kemendagri	Once a year	https://sipades-binapemdes.kemendagri.go.id/
6	eHDW	Electronic Human Development Worker	eHDW is used by Human Development Cadres to monitor and support the increasing convergence of Nutrition Interventions to Families of 1,000 HPK (First Day of Birth).	Kementrian Desa PDT dan Transmigrasi	Once a month	https://play.google.com/store/apps/details?id=id.kader&hl=in&gl=US
7	EDMC	Electronic Disaster Management Centre	assisting Village Volunteers Against Covid-19 in carrying out their activities and activities in providing education and information about Covid-19	Kemensos	-	(Website inactive)
8	SDGs	Pendataan Sustainable Development Goal's	This data collection aims to find out the problems and potential of the village.	Kementrian Desa PDT dan Transmigrasi	Once a year	https://dashboard-sdgs.kemendesa.go.id/#/login

Accordingly, from those problems we conclude our findings that there was a main reason, which the researcher calls *"the euphoria of the government agencies"*. It's because they are in a rush to implement electronic government (E-gov) without proper planning. Our research has identified more than eight applications that have the same goal of collecting data but are made by different institutions or government agencies. We can look after the following table:

Table 18.1 provides an explanation that the rural government uses existing resources to fill out forms distributed by several agencies to fulfill the goals of the institution/agency. They try to collect data to benefit the rural government and hold it once a month or once a year. But the data that had been collected on the server apparently could not be accessed again by the rural government. Even though the rural government officer has obtained the username and password given by those government agencies. The obvious example is the collection of data for the SDGs program.

Hence, the preparation of the rural government work plan is usually not based on big data collected. For all intents and purposes, the District Government Work Plan cannot be used as comparison data for the rural development plan deliberation activities. Because those formulations of policy problems do not have a solid foundation, rural policies are made only based on the perceptions of the rural communities.

THE ISSUE OF A LACK OF BIG DATA

The rural government's way of establishing a policy takes the form of a Rural Government Work Plan based on the priority proposals of aspirations from the rural community. For the implementation, collecting the aspirations of people is not a piece of cake. They must deal with many problems. At the beginning, the rural government must hold a group meeting that includes the main or key persons. Then they hold another meeting with a larger group. Furthermore, in the end, they held the main meeting that involved the whole community.

Once the priority of the proposal is mutually agreed upon, it comes with a regulation from the Minister of Village and Transmigration (PDT) of 2022 that sets priority for use and village funds. This has the effect of changing the proposed

activities and aspirations of rural communities. Whereas based on those regulations, chapter 11 states that the priority of using the village or rural fund is based on three items. First, the results of the village SDGs data collection by the government; second, the data provided by the ministry institution; and third, the aspirations of the rural communities.

Our findings from the rural SDGs data collection that has been sent to the server of the Minister of Village and Transmigration (PDT) cannot be accessed even though the username and password that have been given are correct. It entails using inappropriate comparison data to make policy decisions or to complete a rural government activity plan for government officers. As a result, the rural government just relies on their effort to gain aspirations from the people at Musrembangdes event and some data which is provided by the ministry.

It can be concluded that the rural government must finally change the Rural Government Activity Plan which has been agreed upon by the rural government and rural communities. Whereas, it is not easy to conduct a Rural Development Plan Deliberation. As a result of those changes, there is an implied feeling of dissatisfaction among people toward rural government officers. The rural government officers also implied that they and their community are being pitted by another government agencies. The estuary is that the community has trust issues with the rural government or rural officers.

CONCLUSION

The conclusion of this study demands that the government, through institutions and agencies, are not ready to utilize big data that has been collected through electronic applications from rural enumerators. There are some technical issues such as poor servers, poor signals, poor technology, poor programs or applications, and poor human resources. It is also conducted if the data that has been stored in institutions/agencies is apparently inaccessible by the rural government officers. So that makes hard decisions for them to determine which policy needs to be reviewed. The final point is that the central government appears to have decentralized so that rural areas can make their own policies, but they are not prepared. This implies that the central government intervenes in determining rural government policies. Our

suggestion is that it's worth simplifying the whole process of collecting data and letting rural government officers access the big data that has already been collected.

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