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Identifikasi Ruang Manuver Menuju Resiliensi Komunitas di Masa Pandemi Covid-19

Identifying Room for Maneuver towards Community Resilience during the COVID-19 Pandemic

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Abstract

The pandemic of Covid-19 has hit Indonesia heavily, especially when it was confirmed infectious in early 2020. The government accelerated the immunization program and implemented numerous stimuli and regulations to reduce the effects. However, It didn't stop many people and communities from moving independently to cope with the impacts. An informal community partnership led by Arkom, a community architects' institution, may be one of the pandemic's resilience efforts. Using a bottom-up and participatory strategy, Arkom has succeeded in building community resilience during the pandemic. The Covid 19 epidemic poses unique challenges from previous physical disasters. Seeing disaster as both a challenge and an opportunity, this study intends to describe Arkom's and its informal community alliances' resilience throughout the COVID-19 pandemic crisis. Safier's room of maneuver lens is used to dismantle scenarios with strategic, technical, organizational, and social components. The data is collected and analyzed using snowball procedures with community members and field facilitators. The study concludes that ARKOM and its community alliances could adapt to make a maneuver during the pandemic, and technology is one of the keys to maneuver success.

Keywords: *community resilience; community architecture; informal communities; participatory; room for maneuver*

1. INTRODUCTION

The world's unpreparedness to face a non-physical disaster could be seen during the time of the Covid-19 pandemic. It is shown how terrible the pandemic handling happened in many countries when the effect and prevention should go hand in hand, unlike usual physical disasters that usually could be handled in the post disaster mitigation. The Covid-19 pandemic provides a unique set of challenges,

and unfortunately, no one can anticipate when the epidemic will come to a close. The effects of this pandemic were felt throughout a multitude of sectors, but it had the greatest impact on the economic sector. Recently, the government has continued to work on the recovery process, principally through a variety of policies and regulations, despite the fact that the process is founded on several inefficiencies in the field (Agustino, 2020). One of the biggest challenges in adapting the rule is the cultural

shock in Indonesian society, specifically related to social distancing regulation. However, it appears to be bothering our culture of togetherness, which has long been recognized as a critical component of overcoming severe challenges such as a disaster.

Togetherness was often the key to many solutions, including disaster mitigation and management. Togetherness is always associated with Gotong Royong in Indonesia, and it grows from the daily practice of cooperation (Bhan et al., 2020; Iqbal, 2018).

To gain fresh insights, detailed observations and studies into community resilience during the Covid-19 outbreak are required. Indonesian disaster discourses frequently include community resilience. Is the transformation attainable? How can we assess community resistance to Covid-19? So, how can we apply community-based resilience to a pandemic?

This is important since the narrative on community resilience has remained centered on physical disasters rather than non-physical disasters such as the Covid-19 pandemic. Community-based disaster resilience is assumed to be more effective in countries with strong cultural and traditional foundations, such as Indonesia with its gotong-royong philosophy. Informal groups and communities are also more adaptable than formal groups and communities to resolve future non-physical crises through collaboration.

2. METHODS

Qualitative study that utilizes tabulated data provides an overview of the current situation (Sugiyono, 2017). The tabulation technique is used to collect data from a variety of sources. The data is then analyzed using a case study of a community's resistance and tactics during the COVID-19 pandemic.

Additionally, the analysis description made extensive use of Safier's (Safier, 2002) Room for Maneuver theory to generate an in-depth identification of existing practices. Using four dimensions: technical, organizational, social, and strategic action, Room for Maneuver emphasizes the "driver of change." Qualitative research is validated by descriptive data and empirical studies.

Two stages of the research are conducted through data collection and analysis. It started with a participatory online survey by a total of 467 respondents. The questionnaire aims to obtain general information and an initial assessment that involves five community groups under Arkom's circle. Then, it followed with thematic and in-depth interviews employing a semi-structured list of questions. The snowball method was selected to choose relevant respondents. Choosing five key respondents was based on community contributions from the first assessment survey that revealed that the Kalijawi community's contribution was more dominant than others. Kalijawi also has a long partnership with Arkom. Kalijawi was formed by Arkom facilitation to fulfill the rights to live in their settlement in the Kampung area (Arkom Indonesia, 2020b). Through the observation of respondents' perspectives, the immersion technique is also utilized to highlight the actual phenomena in the field.

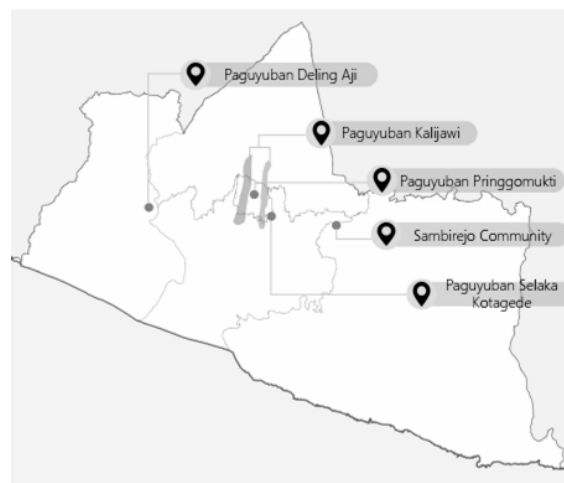


Figure 1. Map of Study Area
Source: (Arkom Indonesia, 2020b)

3. RESULTS AND DISCUSSION

3.1 Challenging Community Resilience through Room for Maneuver

Resilience includes the ability to respond to and recover from disasters (Cutter et al., 2008). The research on urban resilience emphasizes three crucial characteristics: persistence, adaptation, and transformation (Folke, C., S. R. Carpenter, B. Walker, M. Scheffer, T. Chapin, 2010). Following resilience discourse, community

involvement is explored as a type of resilience. Topics related to community resilience emerged largely after natural disasters like the Mount Merapi eruption in Yogyakarta (Akbar, 2019; Jana et al., 2016; Rahman et al., 2016). However, research on resilience and non-physical disasters like the Covid-19 epidemic is limited.

Individuals and communities respond autonomously to pandemic situations by undertaking a variety of actions aimed at increasing their resilience. Most of these initiatives took place under the informal group category (French et al., 2020). In this situation, informal refers not only to residence status but also to livelihoods. According to BPS data, informal sectors represent 80 percent of economic goods in Yogyakarta (BPS, 2019). Additionally, it became the most harmed sector in comparison to other sectors throughout the epidemic.

Room for Maneuver (RfM) is an inter-dimensional analysis approach that consists of four models of action space to stimulate change drivers (Safier, 2002). These models of action space encompass four dimensions: technical, organizational, social, and strategic activities.

The technical dimension is concerned with an individual's or group's commitment to advancing indigenous knowledge. Secondly, the organizational dimension can be traced back to the goals, priorities, resources, and processes of the present institution. Thirdly, the social dimension emphasizes interpersonal interaction, mobilization, engagement, and collaboration. Finally, the strategic dimension is attached to the contextual conditions in order to discover and exploit strategic time and space-related situations. Room for Maneuver is a broad concept that must be presented by experience and specific case examples from the community. By drawing on the work of Arkom and Kalijawi, these four Safier dimensions are used to categorize the many forms of responses to the pandemic threat.

3.2 Identifying and Expanding Room for Maneuver

Technical Dimensions

For more than a decade, Arkom has worked to improve the living conditions of poor people in

Yogyakarta and other Indonesian towns by implementing community architecture (*arsitektur komunitas*) (Arkom Indonesia, 2020a). Arkom is a technical organization and a non-governmental organization that works on themes such as just cities, locality, participatory, co-production knowledge, and disaster management. Arkom began their work primarily through a collaborative mapping effort with members of the community. Residents are educated about their needs and challenges as through community mapping, potential solutions and initiatives are also identified as a result of the mapping (Roitman, 2019). Since 2012, Kalijawi, one of Yogyakarta's informal riverfront communities, has collaborated with ARKOM to improve their living conditions. The Kalijawi Community published a report in 2015 that this non-profit organization renovated over 150 homes in 2015 because of their independent collective savings.

As mentioned before, togetherness and collectivity always come first in dealing with many problems and situations. Therefore, this pandemic offers different challenges both for Arkom and Kalijawi. However, seeing disaster as an opportunity (Archer & Boonyabanha, 2011), these groups could level up their technical aspects in dealing with pandemic. As an example, the community mapping that is usually done manually could be transferred into an online based tool using Maptionnaire Platform and Google Form. In the beginning of the pandemic, mapping is important even the government regulation was strict with the mobilization policy. The initial data collection was used to depict actual condition on the ground as a base of aid distribution.

Additionally, technology transition occurred for their regular meetings, which were formerly conducted through offline physical meeting activities. During the epidemic, communication via video and group chat became favored since they allowed for discussion and participative agreements amongst members. Adopting this new habit will not be easy; it will also bring new questions about power distribution and relationships. However, this technical adjustment is one of several positive

outcomes for ARKOM and Kalijawi during this pandemic circumstance.

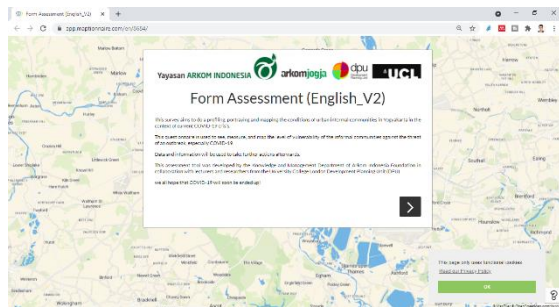


Figure 2. Maptionnaire View
Source: (Arkomp Indonesia, 2020b)

Organizational Dimensions

Kalijawi is a grass-roots group established on the banks of the Gajahwong and Winongo rivers. This society is primarily composed of women who organize themselves into tiny groups of no more than ten persons. The formation of Kalijawi as a community is the result of the similar issues they confront, such as land legality, inadequate sanitation and drainage, economic fragility, health, and environmental concerns, amongst other things (Utama, 2016). A variety of activities, such as saving groups, revolving funds, community mapping-planning-actions, and monthly group meetings are carried out by the organization. Their community planning outcomes were even presented to the Yogyakarta City Government in 2013 (Iqbal, 2017), and they have constantly advocated for local government actions to solve their daily struggles (Iqbal, 2017).

Kalijawi has been working on forming a cooperative since 2019, which was ultimately completed during the pandemic. Unlike the saving groups, the cooperative is now a legally established organization open to anyone. The most difficult part of the transition was educating the community on the new rights and responsibilities that come with cooperative format. Initially, the cooperative consists of 25 groups of 10-15 persons, each going through an education process targeted at increasing member capacity.



Figure 3. Communal Business and Social Media Campaign
Source: (Kalijawi, 2020)

The primary benefits of the cooperative are that members can save, obtain loans, have their basic necessities provided at a lesser cost, and have additional source of income through the different community enterprises established by the cooperative. Additionally, it will facilitate collaboration with other cooperatives, the development of trust, and participation in government programs.

By increasing the capacity and goodness of savings groups (Archer & Boonyabancha, 2011), the cooperative enables communities to develop large-scale joint actions to solve their needs and increases community cohesiveness through the integration of different and separated urban poor groups. Operating their own banking system may also serve as a catalyst for advocating and negotiating with the government with confidence.

Community business is one of prospective agendas when the community established the cooperative. Currently, the cooperative contributes to the purchasing of basic goods with lower price and managing community business initiation like urban farming and ginger tea. The use of social media also gives different impact on this initiative, so that they could connect with other grassroots organizations and public in wider context.

Social Dimensions

What we could take from Arkom and Kalijawi is not instantly appeared. Arkom has been working in the issue of informality in Yogyakarta since 2009. Arkom itself is a member of wider networks across Asia like Asian Coalition for Community Action (ACCA) and Asian Coalition for Housing Rights (ACHR). The main mission of the networks is depicting informalities not as a problem, but through a solid collaboration they could develop better settlements (ACHR, 2014). As discussed before, their actions and strategies including a series of survey processes, community mapping, communal savings, community planning, workshops, and community actions.

Since then, ARKOM and Kalijawi have maintained active connections with other organizations on a local, national, and international scale. To maintain the network strong and connected, they have their own meeting mechanism. Universities, professional institutions, and other non-governmental organizations (NGOs) form the foundation of networks outside of organizations. It has a significant impact on knowledge and capacity development, bargaining power and negotiation, and funding opportunities

In a normal situation, Arkom and its alliance will meet in person on a regular basis. This new sort of social connection allows them to test their limits by greatly altering technology-usage during a pandemic. Online communication methods were used not only for data collection but also as a medium for group discussions.

During the pandemic, Arkom started a YouTube channel to document and educate the public about their movement. This situation also allows them to establish links with other stakeholders, such as Benih Baik, a crowdfunding tool that helps them raise funds for an early pandemic response. They also have a series of discussions with government officials via an online webinar. In fact, it was difficult to get a government official to sit at a table for a discussion, but they can now reach out to them and discuss with them directly, even in virtual modes. However, we are still waiting to see how this connection will advance the community agenda in the future.



Figure 4. One of Webinar Arkom’s Webinar Series
Source: (Arkom Indonesia, 2020)

Strategic Dimensions

During the pandemic, Arkom announced a state of emergency, estimating the pandemic would last until 2021 or longer. Because of the pandemic, Arkom and Kalijawi are adopting digital places (online) as new conversation spaces. These were discovered through internet conversations and surveys. A three-part emergency response plan was created using the preliminary mapping. During the pandemic, they held a series of online webinars with local leaders to better understand local power systems. The strategic response plan has three parts of timeline: short-term, medium-term, and long-term measures.



Figure 5. Arkom’s Pandemic Responses
Source: (Arkom Indonesia, 2020)

The key objectives during the emergency and increasing awareness phases were to provide basic requirements, undertake early assessments, and propose alternate livelihoods. The assessment was conducted utilizing the Maptionnaire platform and delivered to people of Kalijawi and other communities via a Whatsapp group. The survey and data collection method involved a total of 200 families. The number of informal laborers,

Room for Maneuver			
Technical	Organizational	Social	Strategic
individual and group ethic in advancing local knowledge	existing institution's goals, priorities, resources, and procedures	social interaction, mobilization, participation, and collaboration	identify and exploit situations strategically related to time and space
Arkomjogja dan Kalijawi Actions			
Arkomjogja assists with mapping methods, analysis, and other technical requirements in the co-production of local knowledge. In pandemic, new digital participatory tools such as Maptionnaire and G-Form are introduced.	Arkomjogja assists in the formalization of a new cooperative form and in connecting with other governmental and non-governmental institutions.	Arkomjogja launches a YouTube channel to share their current concerns about bottom-up planning and action. It also serves as a virtual repository for their discussion and webinar series.	In response to the Covid situation, Arkomjogja declares three phases: emergency, transition, and recovery.
Kalijawi members share new information with one another through frequent online and offline communication.	Kalijawi initiates saving groups, cooperative business, and mainstreaming cooperative missions.	Through regular local meetings, Kalijawi actively mobilizes its members to collaborate and contribute to their common problem.	Kalijawi takes part in the early assessment and actively connects with other parties such as crowdfunders, local governments, and universities, even though it is done virtually.

Table 1. The result of Room for Maneuver identification.

living conditions, access to essential infrastructural services, and income loss were among the most critical statistics for future plans.

Arkom and its community alliance have taken a variety of methodical and planned strategic activities. To begin, they collaborated with University College London's Development Planning Unit (DPU) to create an online mapping survey to better identify the risks and potential. Health hazards, age, physical separation and cleanliness, primary skills, and income loss were all included in the early data. Using this data, numerous possible solutions were examined jointly, including the creation of hygiene spaces around Kampung and the provision of basic staple foods to individuals in need.

This prompt response was critical in a pandemic situation. Arkom and Kalijawi's study may demonstrate the value of a community-centered approach to development. As a result, the economic impact of a pandemic may be mitigated. Additionally, Pandemic introduces a new community driver. Historically, Arkom attempted to advance the community through planning or land tenure, but economics may

now be a more effective driver of community-based planning and disaster resilience.

4. CONCLUSION

Planning systems, according to Safier, are "social constructions" that are time and location bounded (Safier, 2002). In this manner, the research looked into how the Covid-19 problem could be exploited to develop long-term 'space for maneuver' in community activism. Arkom and Kalijawi have shown the ability to modify four dimensions of action: technical, organizational, social, and strategic.

The maneuver's success is dependent on technology improvement and penetration. Arkom, as an architecturally based institution, also shows that architecture can be done differently (Boano & Talocci, 2014). In this way, they may be able to deconstruct the architect as an individual hero and replace it with the architect as an agent acting and collaborating with others.

Their long-term community involvement should be built up and replicated globally. This will be our major aim in the future.

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REFERENCE

- ACHR. (2014). ACCA Fifth Year Report. Thailand: ASian Coalition for Housing Rights.
- Agustino, L. (2020). Analisis Kebijakan Penanganan Wabah Covid-19: Pengalaman Indonesia. *Jurnal Borneo Administrator*, 16(2), 253–270. <https://doi.org/10.24258/jba.v16i2.685>
- Akbar, Z. (2019). Community Resilience: Lesson Learnt from Disaster Survivors in Yogyakarta Province Indonesia. *IOP Conference Series: Earth and Environmental Science*, 273(1). <https://doi.org/10.1088/1755-1315/273/1/012036>
- Archer, D., & Boonyabancha, S. (2011). Seeing a disaster as an opportunity - harnessing the energy of disaster survivors for change. *Environment and Urbanization*, 23(2), 351–364. <https://doi.org/10.1177/0956247811410011>
- Arkom Indonesia. (2020a). *A GLIMPSE OF ORGANIZATION AND EMERGENCY RESPONSE OF COVID-19 Organization*.
- Arkom Indonesia. (2020b). *Masyarakat Miskin Kota Menghadapi COVID-19*.
- Bhan, G., Caldeira, T., Gillespie, K., & Simone, A. (2020, August 3). *The Pandemic, Southern Urbanisms and Collective Life*. Society and Space. <https://www.societyandspace.org/articles/the-pandemic-southern-urbanisms-and-collective-life>
- Boano, C., & Talocci, G. (2014). The (in)operative power: architecture and the reclaim of social relevance. *Studio Magazine*, 6, 108–115.
- BPS. (2019). *Badan Pusat Statistik*. https://www.bps.go.id/indikator/indikator/view_data_pub/0000/api_pub/bEVXU252SU9hTjBxWEU3Z2NpS1ZPQT09/da_02/1
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18(4), 598–606. <https://doi.org/10.1016/j.gloenvcha.2008.07.013>
- Folke, C., S. R. Carpenter, B. Walker, M. Scheffer, T. Chapin, and J. R. (2010). Resilience Thinking: Integrating Resilience, Adaptability and Transformability. *Ecology and Society*, 15(4). <https://doi.org/10.1038/nnano.2011.191>
- French, M., Ramirez-Lovering, D., Sinharoy, S. S., Turagabeci, A., Latif, I., Leder, K., & Brown, R. (2020). Informal settlements in a COVID-19 world: moving beyond upgrading and envisioning revitalisation. *Cities & Health*, 00(00), 1–4. <https://doi.org/10.1080/23748834.2020.1812331>
- Iqbal, M. N. M. (2017). Diversity and Opportunity in a Good City Making, Learning from Informal Settlement in Yogyakarta-Indonesia. *International City Planning and Urban Design Conference*. <https://doi.org/10.31227/osf.io/rxg8f>
- Iqbal, M. N. M. (2018). Advancing Social Capital through Participatory Approaches. *EMARA: Indonesian Journal of Architecture*, 4(1), 1–12. <https://doi.org/10.29080/emara.v4i1.174>
- Jana, F., Susanne, K., Stefan, N., Tim, S., Nils, U., Kilian, H., Leonhard, H., Simon, K., Fabian, S., Simone, S., & Karl-michael, H. (2016). *Towards Urban Resilience: Assessment of Community-based Risk Reduction Strategies in Yogyakarta, Indonesia*. February.
- Kalijawi Community. (2015). *Kalijawi's Profile*.
- Rahman, M. B., Nurhasanah, I. S., & Nugroho, S. P. (2016). Community Resilience: Learning from Mt Merapi Eruption 2010. *Procedia - Social and Behavioral Sciences*, 227(November 2015), 387–394. <https://doi.org/10.1016/j.sbspro.2016.06>

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- Roitman, S. (2019). Urban poverty alleviation strategies in Yogyakarta, Indonesia: Contrasting opportunities for community development. *Asia Pacific Viewpoint*, 60(3), 386–401. <https://doi.org/10.1111/apv.12229>
- Safier, M. (2002). On Estimating “Room For Manouvre.” *City*, 6(1), 117–132.
- Sugiyono. (2017). *Metode Penelitian Kualitatif*. Alfabeta.
- Utama, Y. S. (2016). PEMBANGUNAN PERKOTAAN BERBASIS KOMUNITAS STUDI KASUS PAGUYUBAN KALIJAWI, YOGYAKARTA. *Seminar Nasional Kota Kratiff*, 105–115.