



Period of Pentahelix Collaborative Participation

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Abstract. With the Slum Area Arrangement, both the Central Government and the Tangerang City Government, it is not automatically accompanied by the independence of the local population. KOTAKU said that the slum area had increase to 105.31 hectares in 2021. This means that many new slum areas have emerged, through the Pentahelix model, which has been developed. Using the Sustainable Competitiveness Criteria, local community was examined. The results founds that most of local community unable to compete because they do not meet the criteria. So that they have more potential to make a new slum area in the future. This study conducts that Period of Pentahelix collaboration should not only be involved in the planning and construction period (external factor of the local community), but it is also integrated into all actors involved until the operation period of the new area (slum area arrangement) both systemically and scientifically (internal factor of the local community).

Keywords: Slum Area · Pentahelix · Period · Collaboration · Sustainable Competitiveness

1 Introduction

Pentahelix has been carried out in previous studies as a problem-solving [1] found that Pentahelix has five actors namely Government, Private, Society, Media, and Academics. This is in line with [2] and [3]. Pentahelix continues to be studied and used in case management. Such as handling the spread of COVID 19 [4] and post-disaster recovery from the Sinabung Volcano eruption in North Sumatra [5]. There are similar conditions in both cases, the Pentahelix becomes a model in the division of roles and responsibilities in any disaster management efforts undertaken. So collaborative action is taken after the disaster strikes. The collaboration between the five actors is indeed very important. This is especially true when it comes to activities that are large and have an impact on the community's economy, then efforts from community independence will be faster and more sustainable [4].

However, there are also differences in these two cases, where [5] involves the area at a macro level and has not involved the affected community in handling it. In this study, it is also suggested for future research that involving affected communities (internally) will be more influential and targeted [5].

In contrast to the two applications of the Pentahelix above, [3] implemented Pentahelix without being preceded by a disaster, but the Pentahelix collaboration was carried

out before a disaster (market competition) to make production more competitive in the business world. This will require more innovation because competition in the business world is tighter. This study states that the community does not play an important role, because it accepts and supports the existing program, according to him, it cannot change the existing product. Because steel products, according to him, do not have a direct impact on the local community.

[6] said that four important aspects must be considered in government collaboration, namely initial conditions, collaborative processes, institutional design, and facilitative leadership [6]. [7] used this concept in reviewing AMDAL in Cirebon. According to him, the collaboration in preparing the AMDAL study in Cirebon has not been maximized [7]. This is due to several factors. Although the initial conditions and the collaboration process were quite good, the institutional design and facilitating leadership were still obstacles. Therefore, institutional design involved to all Pentahelix actors and facilitating support from the government is necessary for successful collaboration.

There is something more challenging in the study of [3], where the community can become the main actor in steel production competition. Because the community as consumers or users is the ultimate goal of a business. So that Pentahelix in steel production can be directed at reading market desires [3].

In addition, Pentahelix is also directed as a preventive measure. In a study of the Pentahelix strategy in the arrangement of Kampung Bandar Pekanbaru City, community empowerment is needed to arrange slum areas more mature [8].

2 Method

The location of sample is in Kedaung Baru, Tangerang City. This study involved 5 actors related to Pentahelix. The resident of Slum area in Kedaung Baru was the main actor in the collaboration of participation towards slum area management. The local community was explored using the Criteria of Sustainable Competitiveness [3]. It has 4 elements such as social capital, natural capital, intellectual capital, and governance efficiency. The data primary data was collected by questionnaire and direct interview. While the secondary data was collected from Kota Tangerang's Documentary. By twenty questions, 70 respondents were asked how much their cost for monthly needs, how they struggle for their life and what they need to get a better life. Each respondents presented their family. The answer analyzed by descriptive charts.

3 Results

Of the approximately seventy residents of slum areas in Kedaung Baru, there is around 90 percent of slum areas resident get low income (below the minimum salary rate of Kota Tangerang Government). This means that they are still unable to fulfill their daily needs. Infrastructure improvements are simply physical improvements for them. Meanwhile, the need for food and clothing has not been resolved. Forward, they still funding for other needs such as health, residential renovation, cleanliness, and others. From the existing data, the community still pays for health services as much as 5 percent of their living costs. However, it should be noted that flooding is also a local community complaint.

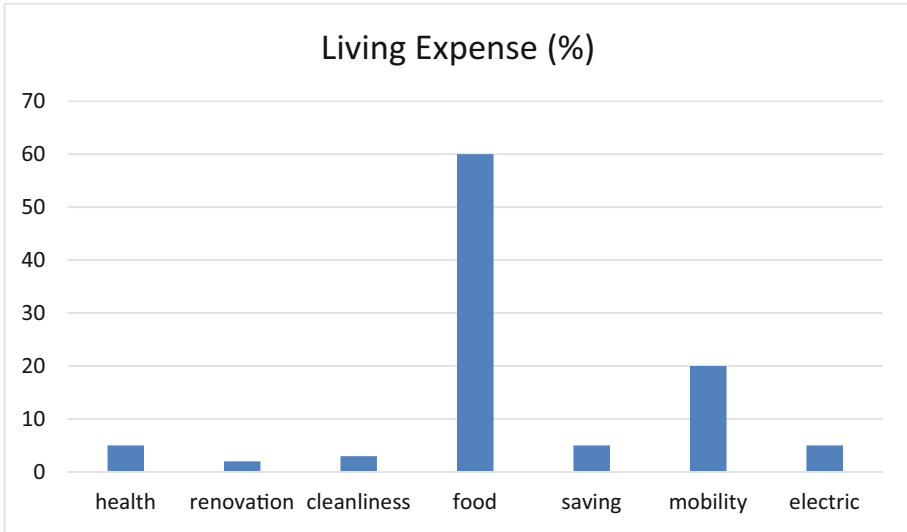


Fig. 1. Living Expense of Slum Area Resident at Kedaung Baru (Source: Processed Data)



Fig. 2. Model of Sustainable Competitiveness [3]

Floods always inundate the area for three hours every time it rains. Wastewater from the drainage canal enters their residence. It makes the high cost of their health (Fig. 1).

4 Discussion

Due to the lack of income for their daily needs, new infrastructure improvements save only 10 percent of their living expenses (monthly needs). The minimum salary rate can be achieved by adding 20 percent of their current income then they could upgrade their life to average level. To increase the competitiveness of people in slum areas people should have ability in four elements (Flores et.al, 2022) such as social capital, natural capital, intellectual capital, and governance efficiency (Fig. 2).

This study conducts that Pentahelix Collaboration needs to be carried out in three periods (Fig. 3), namely planning, construction and operation.

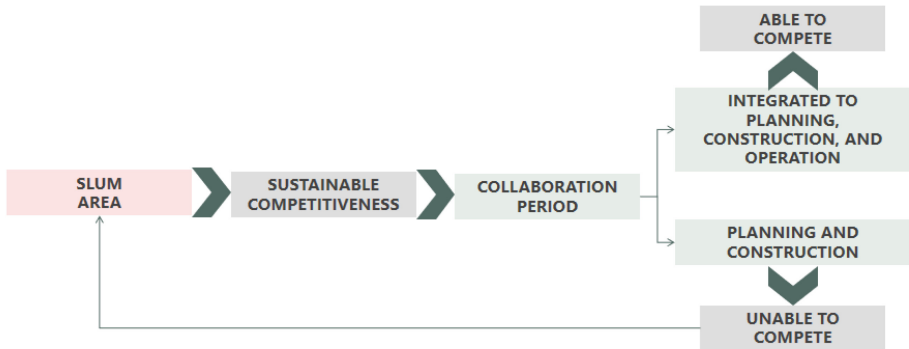


Fig. 3. Period of Pentahelix Collaboration towards Sustainable Competitiveness (Source: processed data)

After the Pentahelix collaboration was carried out in different locations, both for problem handling and problem prevention, there were still shortcomings in the application of Pentahelix. The example above can be concluded that there are differences in the period of Pentahelix collaboration, in the form of the period before the disaster (prevention) and after the disaster (handling). So, in this study, we will combine the two types of Pentahelix above, namely the Pentahelix collaboration carried out in three periods, including planning, construction, and operations.

The collaboration period becomes a variable to be considered because there are differences and how to handle a problem or condition. The difference between this study and previous studies involved three variables in the Pentahelix collaboration, namely, place, actor, and activity [1].

The period considered in this Pentahelix collaboration study is to complete an integrated problem-solving or problem-prevention action. Pentahelix collaboration cannot be done within a short distance [2]. It takes a longer time in structuring slum areas. Meanwhile, infrastructure improvement is not the only aspect that needs attention.

Along with these conditions, the Pentahelix collaboration carried out by the Tangerang City Government is still causing problems. After five years KOTAKU has carried out repairs to slum areas using the house renovation programs (Bedah Rumah) and flats (Rumah Susun) since 2016 (Fig. 4) with an area of 338 ha, there was still 28 ha in 2021 (Fig. 5). Then there is a new slum area of 76 ha which is in a different location.

It proves that Pentahelix collaboration cannot be done solely by planning and building infrastructure. However, collaboration must also be continued until the operational period of slum area arrangement and what needs to be done in the operational period is coaching by several actors to enrich the community's internal factors (mindset and intellectual ability) and compete to improve their standard of living sustainably. This step is expected so that the fostered community can meet their daily needs so as not to create new slum areas elsewhere.

The period of construction is the period when actors are involved in building the infrastructure for structuring slum areas and monitoring whether the spatial planning is in line with the planning for space requirements and the regulations in force in Tangerang

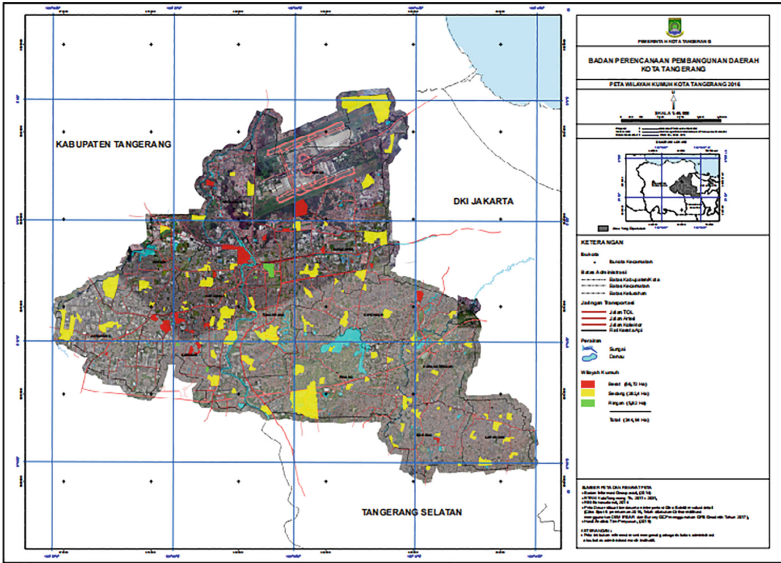


Fig. 4. Slum Area in 2016 Source: Dokumen KOTAKU Kota Tangerang (2022)

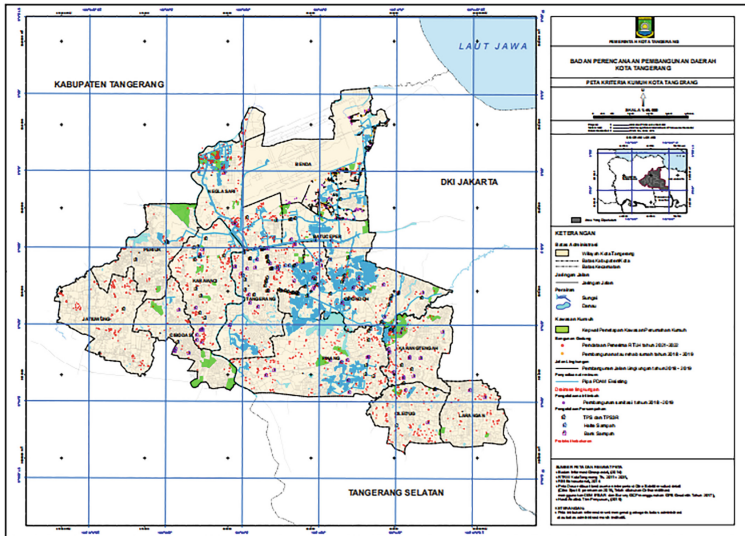


Fig. 5. Slum Area in 2021 Sumber: Dokumen KOTAKU Kota Tangerang (2022)

City. It is also necessary to review whether the improvement of the slum area infrastructure that is being built can solve environmental problems in terms of water, soil, air, lighting, and others.

The period of operation is the period in which actors are involved in operating a carefully planned program. In this period, the emphasis is on internal factors (coaching).

This coaching is not only to save expenses but also to increase income. Several things need to be done, such as how the community can implement a healthy life, maintain clean drainage, utilize the planned business space, and follow and develop business programs fostered by other Pentahelix actors. This third concept is in line with [8] that stated community empowerment is an important step in preventing slum settlements.

5 Conclusion

The result of this study finds that local community in Kedaung Baru is not enough to compete based on sustainable competitiveness criteria [3]. Then this study conducts a method of collaboration period to improve the ability of local people. The periode of Pentahelix collaboration must be thoroughly integrated by all actors of slum area from planning activities until the community becomes truly sufficient. This study has a limited number of community samples explored and focuses on one location that will be reorganized. It is recommended that future research to examine the significant level of willingness actors towards planning, construction and operational period of collaboration.

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