

# Structuring urban slum areas based on social enrichment in Gumelem Village

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**Abstract.** Gumelem village is one of the slums in the Pemalang Regency, Central Java Province. The area has characteristics such as high population density, the narrowness of the neighborhood road, the location of houses that coincide, the narrow house, and the house is inhabited by several families and does not have a private toilet. The formation of slums is an obstacle in regional development; for this, it is necessary to arrange the area. This study uses the Participatory Research Appraisal (PRA) method to ensure the active involvement of the target group community and place the community as a subject in the activation process. The research results show that social strengthening efforts in the community and government agencies in the management of the slum areas of Gumelem are essential to realizing the success of the slum structuring program.

**Keyword:** Slums, Social Enrichment, Community Participation

## 1 Introduction

Slums are residential buildings and settlements that are less integrated, directed, planned. They do not pay attention to the completeness of necessary infrastructure and facilities such as clean water, sanitation, waste management systems, and rainwater channels that tend to be degraded [1]. Slums are a product of population growth, poverty, and a lack of government in controlling growth and providing adequate urban services [2]. The rapid population growth in this urban area often outperforms cities' ability to offer services, including infrastructure and provision of proper housing for their citizens, resulting in many slum housing environments [3]. The development of settlements in urban areas is inseparable from the rapid rate of urban population growth due to urban population growth factors themselves and due to urbanization

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Urban slums in developing countries are only due to informal, illegal, and unplanned urban growth [4]. The growth of slums in urban areas has many consequences; especially aesthetically, it can cause low environmental quality. Further traced out the slums can lead to space conflicts, dense residential areas with low carrying capacity, a decline in the level of public health, a reduction in the quality of housing infrastructure facilities and services. Coupled with vulnerability and social conflict caused by overcrowding. There are many challenges in building resilience in slums, but there are also opportunities. In particular, the new government policies on urban development, climate change, and the emerging interest among institutions to address urban problems offer potential advocacy for building resilience in urban slums [5].

Slum-dwellers suffer from deteriorating living conditions and health care as well as high illiteracy rates that hurt their well-being and at the national level, especially on the country's economy [6]. This condition is compounded by inadequate institutional capacity in environmental management [7]. The regional government certainly has done a variety of ways to deal with slums, starting from the arrangement by the conditions of each region to the implementation of technical activities

This study select Pemalang Regency to explore the program and problem of urban slum. The population growth rate in Pemalang Regency reaches 0.58% per year. Although not classified as having a high population growth rate, the problem of settlements has become a critical issue, especially related to the number of slums scattered in various areas of the city. Pemalang Regency Government reforms and structures slums to achieve regional development targets. Determination of Location of Housing and Slum Settlements in Pemalang Regency, the area, reaches 326.82 Ha, spread over four subdistrict areas, and 26 villages, the largest is in Pemalang District (144.33 ha).

The action plan for handling the slums of the Pemalang Regency is outlined in the memorandum of the program for the Prevention and Management of Urban Slum Areas (RP2KPKP), including the plan for structuring the city centre area which covers Mulyoharjo Village, Pelutan Village, and Kebondalem Village. The three urban areas have the main characteristics of various activities, mainly characterized by the community's economic activities, such as trade and services, office centres, education centres, and other events. The City Centre area is a priority area for handling. The main problem in the city centre's slums is the irregularity of buildings due to the growth of illegal settlements on the border and above the channel and construction of buildings that do not comply with technical requirements. This area is prone to floods and fires due to high settlement densities, inadequate access road settlements, not following technical specifications, and drainage networks that are not functioning correctly.

## **2 Research methods**

This research uses the descriptive qualitative method. This method aims to understand what is experienced by research subjects using analytical procedures and not using statistical analysis procedures or quantitative methods but using descriptions in a particular natural context [8]. Descriptive qualitative research methods aim to make a systematic, factual, and accurate description of the facts, nature, and relationships between the phenomena investigated [9]. The researcher is a crucial instrument in this study; the data collection technique is carried out in triangulation, namely by direct observation, interviews, and documentation of inductive data analysis [10].

The research also uses the Participatory Research Appraisal (PRA) method. According to Handayani [11], the PRA research method was used to ensure the active involvement of the community that was the target group. The PRA research method places the target group community and the subject in the activation process, not as an object. In PRA, researchers are those who are actively involved in the program activities. The research activities are carried out by preparing plans, instruments/indicators, collecting data, processing, analyzing, and compiling reports with the target groups. This study aims to contribute to several sustainable methodologies for better implementation of slum development programs to advance slum residents' living conditions [12]. Research on the arrangement of the Pemalang City slum focuses on the Gumelem village, the Mulyoharjo sub-district. This location was chosen because it is the location that has the most slums, and is a strategic area because it is close to the centre of economic activity in the City of Pemalang. Gumelem village is inhabited by 255 families, with a total of 874 inhabitants who occupy 197 residential building units.

### **3 Results of analysis and discussion**

Gumelem village is one of the slums in Mulyoharjo Urban Village, strategically located in the centre of Pemalang. The village is identical to a secure community environment, consisting of low and middle-income groups and generally does not have adequate infrastructure, utilities, and social facilities both in quantity and quality and built on land that has been owned, leased, or borrowed by the owner. Several issues become the background of the chosen research location, including socioeconomic issues, environmental issues, and land legality issues. The problems that exist in the village of Gumelem, namely the livelihoods of the people of Gumelem village, are mostly casual daily laborers, traders, civil servants, and entrepreneurs. Forty-two families are occupying 30 building units on state-owned land or irrigation channels. Generally, residents who live on the border and irrigated land are the original inhabitants of the village of Gumelem who have been hereditary occupying the area.

The Gumelem village area also often experiences flooding caused by drainage that cannot drain water into the Srengseng river due to the drainage channel's siltation. In the rainy season, water from the overflow channel to the settlement causes an extended inundation. This condition causes damage to facilities, infrastructure, and creates slum in the environment. The situation is worsened by the accumulation of garbage in the drainage channel. The location of the Gumelem settlement has 197 building units with 167 units (85%) of buildings standing on legal land with private property status and 30 units (15%) of buildings standing on legal land with private ownership and (having) additional buildings which are above the channel border.

In contrast, the condition of illegal settlements in the Gumelem Mulyoharjo area hurts the image of Pemalang City, so that settlement is needed. The arrangement of slums is identical to the relocation. Housing relocation is a standard policy to solve the problem of slums, congestion, and other social ills in developing countries [13]. Relocation is a collaboration between innovation and tradition. On the one hand, policies often result in new and directed coercion of society's ecological, structural, value, and cultural systems. But on the other hand, the procedure can lead to unexpected things that are latent such as an adaptation of relocated communities.

Settlement structuring activities carried out by Pemalang Regency Government in the form of development activities for accessing the Gumelem road - vegetable and fruit market, Gumelem - 45 Road Pelutan, revitalization of drainage channels, structuring of sanitary communal WWTP), and Development of Public Open Space (RTP). This study analyzes essential values related to social phenomena and community participation in the implementation of slum settlement structuring activities in Gumelem village, divided into

three stages: the preparation of program planning, the stage of program implementation, and the stage of program evaluation and supervision.

### **3.1 Program Preparation Phase**

Planning is carried out to involve the community in data collection and identification of problems that occur in the Gumelem village community. This activity was carried out using FGDs among the Project Affected Residents (WTP) Structuring slums in Gumelem village. The preparation stage will produce outputs regarding the social, economic, environmental, and inventory buildings of the Gumelem village community. The socialization was also carried out at the preparation stage of the program implementation. The socialization involved the Gumelem PAPs, especially those affected by the settlement arrangement, road construction, and drainage activities. Settlement structuring programs that impact the demolition of building complementary elements above the irrigation canal as many as 30 WTP / KK.

The results of the FGD conducted by the Pemalang District government in collaboration with the central government through the KOTAKU and WTP villages of Gumelem have obtained information that the residents agreed to restore the function of the irrigation canal. By demolishing existing buildings along and above the canal, residents also decided to compensate the government as a result of demolition of part of the buildings owned by residents. Pemalang district government provides financial assistance to cut parts of the building above the irrigation channel and repair the former cuts. Demolition or cutting and tidying will be done by the residents themselves, assisted by the Pemalang Regency Government, and provide transportation equipment to be used to clean the debris of the building.

### **3.2 Program Implementation Stage**

The Gumelem Village slum structuring program includes

#### *3.2.1 Structuring the building above the drainage*

The Pemalang Regency Government will turn settlements in the Gumelem village into habitable settlements and improve the quality of life of its citizens. Residents affected by activities as many as 30 units. The building is an additional building that completes the main building. The main building stands on land owned by residents while the other building above the channel violates the allotment of land and holds by tertiary or government irrigation. Compensation for the impacts arising from building structuring activities through an agreement with the PAP to determine the form and type of compensation. Pemalang district government provides financial assistance to cut parts of the building, which is above the irrigation channel and repair the former cuts. Demolition or cutting and tidying will be done by the residents themselves, assisted by Pemalang Regency Government

#### *3.2.2 Construction of the village pedestrian road Gumelem.*

This pedestrian will be built to connect Gumelem village with Pelutan village. The road construction process must pay attention to the principles of land acquisition, including avoiding land acquisition and relocation as much as possible. If it is necessary to make a land acquisition, it must minimize the need for land acquisition and resettlement. The Land

acquisition must go through a process of consultation with the PAPs. With these considerations in mind, land acquisition for the Gumelem village area, namely the length of the Gumelem access road - approximately 450 m of vegetable and fruit markets. The existing condition of the land status belongs to the Regional Government so that it does not have the potential to cause social impacts.

### *3.2.3 Development of Public Open Space*

To meet the needs of public space in urban areas, the construction of RTP that utilizes ex-field land turned into a puddle with an area of  $\pm 11,000$  m<sup>2</sup>. Land Status for RTP is owned by Pemalang District Government to use land with the issuance of the Office Note by Regional Assets for RTP. District Government. Pemalang, together with the Kotaku program through the Central Java Provincial Development Settlement Settlement Unit (PKP) with APBN (Kotaku) funding sources.

### *3.2.4 Development of communal WWTP*

To improve the quality of the Gumelem Mulyoharjo sub-district's ecological environment, the government of the regency. Pemalang will build five units of communal WWTP to meet 99 families, which so far the community has discharged waste into existing irrigation channels. Placement of WWTPs on Sempadan Land irrigation channels for four units and 1 unit on the Environmental Road. Dimensions of WWTP Length; 4 m and a width of 2 meters of land required 5 x 3 m so that for 5 WWTP units requires 75 m<sup>2</sup> of land for the Piping Network System through the Existing Environmental Road Access.

## **3.3 The Monitoring And Evaluation Stage**

District Government. Pemalang, PKP Working Group, Satker, or Bappeda supported by KOTAKU will carry out Monitoring carried out at every stage of the slum settlement structuring process in Gumelem village. Monitoring is carried out in two directions: internal Monitoring carried out by the community and elements of community institutions and Monitoring from institutions outside the community, internal aspects of the Regency government through related technical services, and aspects of the PKP Province / Satker. Monitoring of the entire planning process and implementation of the work plan agreed in the structuring plan. Also, field visits or supervision will be conducted regularly.

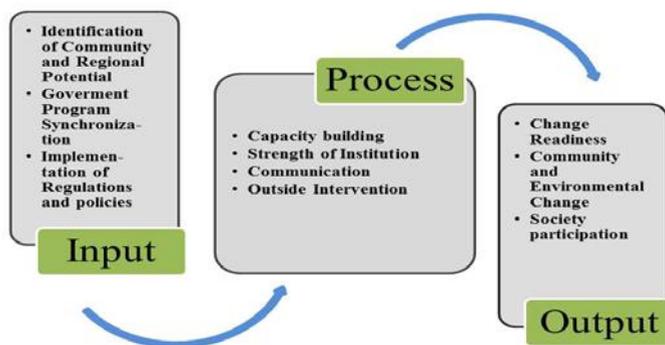
## **4 Social enrichment model**

Social strengthening is carried out to achieve sustainability and integrate the roles and capacities of stakeholders involved in the urban slum structuring plan. This is done to integrate and synergize performance among stakeholders. The capacity building and capacity building of the community is carried out through activities at all stages, including preparation of planning, implementation, and evaluation of programs. The community plays a role in implementing the program by participating in giving up some of their lands for the development of public infrastructure and environmental management. Enhancing the government's character and social capacity is carried out through the establishment of the PKP Working Group to assist the Pemalang Regency Government in managing the slum management program. The FGD was conducted between the Settlement Area Development Working Group (Pokja PKP) and the Gumelem village community to discuss the problems

in the Gumelem village for later analysis of the handling and discuss the potential for regional development. Cooperation is needed to implement the slum management program between the Pemalang Regency government, which consists of institutions such as the Regional Development Planning Agency (Bappeda), the Public Works, and the Spatial Planning Office. The Housing and Settlement Office and the Environment Agency with community institutions.

The community's social capacity building is carried out through the establishment of Community Self-Help Institutions (MFIs) tasked with managing the area based on RT groups. The form of increasing social strengthening is done through the provision of knowledge and simulations in the FGD. The knowledge conveyed includes efforts to manage the environment independently by managing group funds. This is done to achieve a good environment with the support of community groups who can access funding sources and can be trusted by financial institutions, both government and private. The integrated program and the performance synergy carried out are proven to be able to increase the effectiveness of the work program of the regional government, related to the efforts to restructure the area and develop the capacity of community and local government cooperation in handling slum areas. Social strengthening is needed to prepare the community for change in efforts to improve welfare.

The aspects needed to determine the success of strengthening social capital in the slum structuring program are derived from three things, namely identification of the potential of communities and regions, synchronization of government programs, and implementation of regulations and policies. The framework for strengthening social capital in the management of slums is summarized in the following figure.



**Fig. 1.** Diagram of Social Strengthening in the Region Arrangement of Gumelem Village

## 5 Conclusions

Increasing the capacity of social strengthening in the Pemalang district government can be done by trying every government agency to give authority to implement a slum area structuring program by forming a work unit management area. It aims to improve social quality in the arrangement of slums. At the same time, social strengthening in the community

can be done by giving committing to the community to participate actively in decision making, planning, implementing, and supervising programs as well as contributing to improving the socioeconomic quality of the Gumelem slum structuring program. The synergy between the government and the community can be realized in collaboration, namely, regional-based operational cooperation and outside-based collaboration [14]. Community empowerment in slums through their participation in the area structuring program aims to enable the community to participate in managing funding at the microscale and improving the physical environment. Of course, this is inseparable from the support of the government and community support institutions [15].

## Acknowledgement

The research is funded by Directorate Research and Community Services, Deputy of Research Development, Ministry of Research and Technology / National Research and Innovation Board with cooperation between Institute of Research and Community Services Diponegoro University taskforce letter No. 255-141/UN7.6.1/PP/2020

## References

1. Y V Simorangkir, S Octavia and H S Raubaba . *Slums as a result of urbanization*. IOP Conference Series: Earth and Environmental Science 343 . 012230 . (2019)
2. D. L. Cahya, Penataan Kawasan Kumuh (Pulo Geulis) Kelurahan Babakan Pasar Kecamatan Bogor Tengah Kota Bogor, Jurnal Planesa, Vol. **3**, No.1 (2012)
3. N. E. Patrisia, Penataan Permukiman Kumuh Kota Berbasis Kawasan, J. Professional FIS UNIVED, Vol **4**, No.2 (2017)
4. N. Uddin. Assessing Urban Sustainability Of Slum Settlements In Bangladesh: Evidence From Chittagong City, Journal Of Urban Management 7, 32 – 42 (2018)
5. I. Akhmed. *Factors in building resilience in urban slums of Dhaka, Bangladesh*, in Proceedings of the International Conference on Building Resilience, Procedia Economics and Finance 18 ) 745 – 753, 8-10 September 2014, Salford Quays, United Kingdom (2014)
6. S. M. Elgizawy, S. M. El-Haggar, K. Nassar. *Slum development using zero waste concepts: construction waste case study*, Proceedings of the International Conference on Sustainable Design, Procedia Engineering 145, 1306 – 1313, (2016)
7. S. W. Williams. *The Brown Agenda: Urban Environmental Problems and Policies in the Developing World*. Geography Association. January 1997, Vol. **82**, No. 1 pp. 17-26
8. Moleong LJ. 2007. Metodologi penelitian kualitatif edisi revisi. *Bandung Remaja*. PT Rosdakarya 103
9. Setiawan MAL, Santosa A. 2013. *Gaya Kolonial di Rumah Tinggal Keluarga Ko Som Ienndan Ko Kwat Ie di Magelan*. Intra 1
10. Sugiyono H. 2016 . Metode kualitatif dan kuantitatif *Cetakan ke-23*. Alfabeta Bandung

11. Y. P. Heston, A. A. Yusuf, Penguatan kemampuan sosial pada penataan kawasan kumuh perkotaan (Studi kasus kelurahan cigugur tengah cimahi) , J. Tata Loka Vol. **15** No. 3 Agustus 2013 : 208 – 217

12. S. Shekhar, *Effective management of slum- a case study of kalaburagi city, Karnataka, India*, Journal of urban management, (to be published)
13. R. S. Bryce and Laporte. *Family Adaptation of Relocated Slum Dwellers in Puerto Rico: Implications for Urban Research and Development*. The Journal of Developing Areas. 1968, Vol. 2, No. 4. pp. 53354
14. I. Turok. *Housing and The Urban Premium*. Habitat International 54. 2016. 234-240
15. A. Das. *Autonomous but constrained: CBOs and urban upgrading in Indonesia*. Cities 48. 2015. 8–20