

# FIG WORKING WEEK 2019

22-26 April, Hanoi, Vietnam

Presented by the FIG Working Week 2019,  
April 22-26, 2019 in Hanoi, Vietnam

"Geospatial Information for a Smarter Life  
and Environmental Resilience"



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## Solutions for Quality Improvement of Slum Settlement with Limited Area Using Vertical Land Consolidation Concepts in Urban Village (Case Study: Babakan Surabaya Urban Village, Bandung City, Indonesia)

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## INTRODUCTION

The growth and development that took place in Bandung accelerated the population growth. The city's growth is not supported by the availability of habitable land for low-income society. This happened because of the land area available with the land area needed to accommodate activities and development activities of a society in a region are not adequate, settlements for example. Widespread slum neighborhoods in urban areas have affected on increasing potential vulnerability and social conflict. It is also decreasing the level of public health, decreasing the quality of housing infrastructure and public facilities.

**Land Consolidation is applied in slum settlements according with its purpose, namely increasing the achievement of an orderly and orderly land use and control order**

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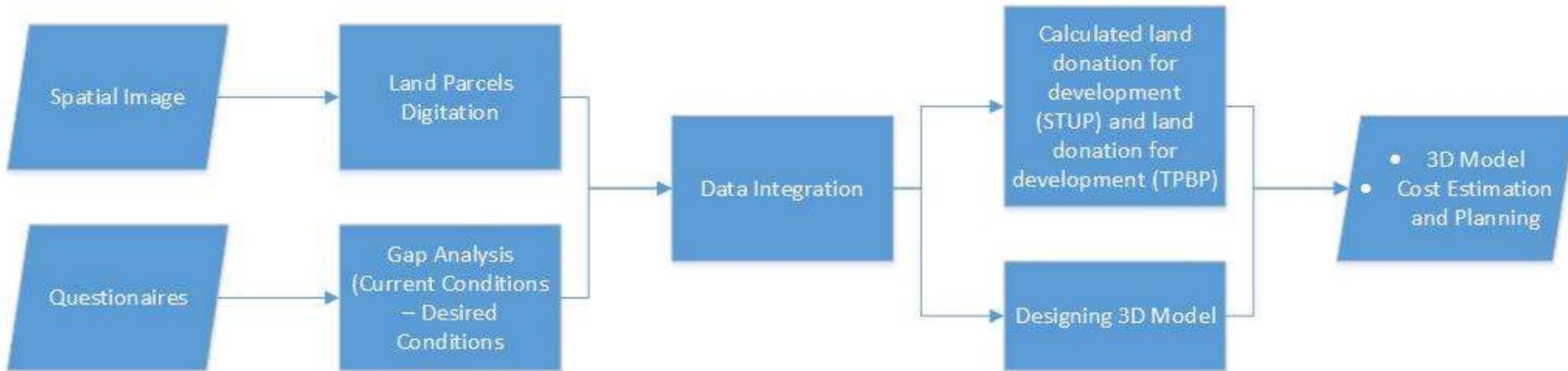
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## METHODOLOGY



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## Digitation and Gap Analysis



No	Circumstances in the field	Fulfill / Not	Criteria for residential homes
1	There are many buildings that do not have a foundation or lower structure.	Does not fill	Meet building safety requirements including: upper structure; middle structure; and lower structure
2	Many houses in narrow alleys build two-level houses, and the balconies jutting into the aisles. So that the lighting in is very minimal and very dangerous if there is a fire, because there is no access for the extinguisher.	Does not fill	Ensuring health includes lighting, heating and sanitation.

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## CALCULATION

- land donation for development (STUP) and (TPBP) used in the implementation of the vertical KT program, namely the STUP covering an area of the total area used in the RT 08 implementation area of 1,467 m<sup>2</sup>, while the TPBP used in the construction of towers comes from selling commercialized flat unit
- Cost calculation:
  - 24 m<sup>2</sup> types that are commercialized: 50 units - 19 units = 31 units
  - Type 36 m<sup>2</sup> commercialized: 65 units - 12 units = 53 units
  - The total area of the commercialized flat: (31 units x 24 m<sup>2</sup>) + (53 units x 36 m<sup>2</sup>) = 744 m<sup>2</sup> + 1,908 m<sup>2</sup> = 2,652 m<sup>2</sup>
  - The selling price of flat / m<sup>2</sup> commercialized: Rp. Rp. 20,713,200,000: 2,652 = ± Rp. 7,810,408, - rounded up to Rp. 7,850,000

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## DESIGNING 3D MODEL



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## CONCLUSION

- 28% respondents agree, 36% respondent are in doubt, 36% respondents are disagree. In fact, according to the Regulation of the Head of the National Land Agency No.4 of 1991, land consolidation system can be done if it has obtained approval from at least 85% of landowners. However, intensive counseling is needed
- Even though the percentage of this research below 85%, the land consolidation schemes in this research can be done by calculated the land donation for development (STUP and TPBP) to cover the apartments development cost. So that, some cost be certified by the community (STUP and TPBP) and by selling the apartments unit. The land acquisition aren't needed anymore

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# THANK YOU

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