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Jl. Tata Bumi No. 5 Banyuraden, Gamping,
Sleman, Yogyakarta, 55293
Tlp. (0274) 587239
Faxes: (0274) 587138

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Jl. Tata Bumi No. 5 Banyuraden, Gamping, Sleman
Yogyakarta, 55293
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Author: Oloan Sitorus, Sukmo Pinuji, Westi Utami,
Arif Suhattanto, Ferdy Nugraha, et al.

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THE ROLE OF COMMUNITY PARTICIPATION AND SPATIAL DATA ON VERTICALLY LAND CONSOLIDATION PROGRAM IN MANAGING SLUM AREA

Westi Utami^{*1}

Iswari Nur Hidayati^{**2}

^{*}National Land College, Tata Bumi 5 Yogyakarta 55293, Indonesia

^{**}Faculty of Geography, University of Gadjah Mada, Bulaksumur Yogyakarta, Indonesia

Abstract

Limitations of land in slum areas in the suburbs and in urban areas make vertical land consolidation selected by the government to rejuvenate and improve environmental quality. In the context of land consolidation, community participation should be an important point to be considered. Community participation should be carried out from planning, implementation to physical development. In the vertically land consolidation, aspects of community participation should also be supported by socio-economic approaches. The vertical consolidation of land is not only organize the physical aspect, but also concern to the social aspects of community, employment, and livelihood of the community after being transferred to vertical housing/LC. The research method is done descriptively by conducting literature study on Land consolidation program vertically and development of flats in some areas. The results show that the consolidation of land that has been done through the development of flats often occurs constraints where people have a decent home from the physical aspect, but from the social and economic aspects they experience degrees of decline. Some flats development programs are not well targeted due to lack of community participation and expensive rental fees. To support vertical land consolidation programs can utilize remote sensing data and spatial data. Spatial and remote sensing imageries can provide the spatial aspect that can give information of KL the distribution in an appropriate target.

Keywords: Vertically land consolidation, community participation, slum area

A. Introduction

Slums area is the one worst side of the injustice and inequality of development. The high demand for land causes land process so high. Therefore, some communities are marginalized by high land prices. The effect is they choose to live in slum areas such as riverbanks, railroad edge, or near of garbage disposal area. Development in the slum area causes inconsistency with urban spatial planning.

Various phenomenon of slum areas in the capital area and other major provinces are reflection of incompatibility between housing need assessment and regional planning. The central and local governments should be wise for revitalizing slums area. Some of communities also hope that slums area can be significantly reduced by governments. Sometimes, slum area revitalization policies are not appropriate for the lower communities. It makes the go out form their societies. Another problem based on revitalization of slum areas is highly cost for rent. Sometimes, they are not involved for decision making of slum

¹ Coresponding Author: westiutami@gmail.com

² Coresponding Author: iswari@geo.ugm.ac.id

rejuvenation and arrangement. The aim of slum reductions is to create healthier settlements and better quality environments. In general, row houses are used to overcome the problem of slum area. In other hand the construction of row houses is not possible in slum area whit densely populated and narrow land. The arrangements of slum areas should be supported by adequate road networks, waterways, open green space, public facilities, public space, and also social facilities. Therefore, the governments must have the appropriate solutions for handling and structuring of slum areas.

B. Implementation of Slum Area Revitalization trough Flats Developments in Various Area

The revitalization program that has been implemented by government are relocations and flat developments. In plain view, the program was successful enough to slums set up and create a better environment quality. However, this programs are less successful for solving the slums problems especially in cultural, social, and economic aspects due to lack of assessments, socializations, and participations of the communities.

One example of research conducted by LBH Jakarta on 18 locations of relocation and flats development showed that the implementation process of relocation that has been implemented is not maximal. This are caused by less attention to community rights, socialization is not comprehensive, less than maximum assessment, less attention to rights and community participation. Relocation that far enough from previous community livelihoods reduces income levels in the communities. The high rental price of the apartment causes the community cannot afford to pay. Consequently, they must be evicted from their residence (LBH Jakarta, 2016).

C. Land Control and Land Management

Ministry of Agrarian and Spatial is in charge of issuing land certificates, regulating, managing, and controlling land and spatial planning. In the context of slum areas rejuvenations, ministries has authority for providing land availability for settlements relocation and regulating land rights to occupied land/settlements.

Land consolidation (LC) as the policy program of ministry of ATR / BPN has not been running maximally due to lack of coordination among local ministries in implementing LC. This is indicated by low implementation of land consolidation program in Indonesia. Meanwhile, if we understand the purpose of the land consolidation is “of the people, by the people and for the people”. This program in controlling and regulating the ownership, control, use and utilization of land will be much more effective and beneficial to the community. This program should be used for land control, ownership arrangements, power regulation, land regulation, and land use. With the enactment of this program, the consolidation of the land will be more effective and beneficial to society.

D. Vertical Land Consolidation

Land consolidation (LC) as land policy concerning the realignment, control and use of land and land procurement for development purposes. LC will improve the quality environment and maintain the natural resources by involving the active participation of the community is expected to be one solution of slum areas problem (Perkaban No. 4 of 1991). Consolidation as one of the land control policy can be realized through the cooperation of local government level I, local government level II, Ministry of ATR / BPN, and society.

As regulated in Regulation of Head of National Land Agency Number 4 Year 1991 concerning Land Consolidation that land consolidation participant can as the holder of land rights or can also as a cultivator of state land object Consolidation Land. Article 5 states that the Land Consolidation is functionally carried out by the Land Office. The Land Consolidation Organization is the Coordinating Team, especially as a coach is held by the Governor. The governor has authority over the territory and controls the spatial layout of the territory. Land consolidation as a policy of land control must be in line with the planned spatial plan. In addition to having the authority to region regulation, the local Government/Regent also has authority in infrastructure development such as roads, waterways, public facilities, and social facilities, which should be implemented in Land Consolidation.

Vertical Land Consolidation is expected to provide for slums area solutions. Through this program, controlling the existing slums of the river can be overcome. They can live in flats that are not far from the previous livelihood location and dwelling place. Facilities provided by LC in the form of social facilities and public facilities can be fulfilled by government cooperation through government funds and self-help communities.

E. Community Participation In Land Consolidation

The difference between land consolidation and other programs is the active participation of the community. In land consolidation as set forth in Chapter I General Provisions and Chapter III Implementation of Land Consolidation, participation is an important part of the LC process. Society is involved from the earliest process. This process begins with the socialization of the Land Office and the Regional Government. In the next phase, community participation is realized in the approval of the implementation of LC in accordance with the regulation which reads "Land Consolidation can be implemented if it gets the approval of 80% of LC participants". In further process, community participation continues to be involved in block design of the LC plan, agreement on the number of TPBP (Land Reimbursement of Development Costs) and approval of STUP (*Sumbangan Tanah Untuk Pembangunan* - Land Donation for Development). Community participation that continues to be included in the LC process certainly makes this program much more cost-

effective. This is because the aspirations and rights of the community is very concerned. Some advantages of revitalizing slum areas through LC are presented in Figure 1.

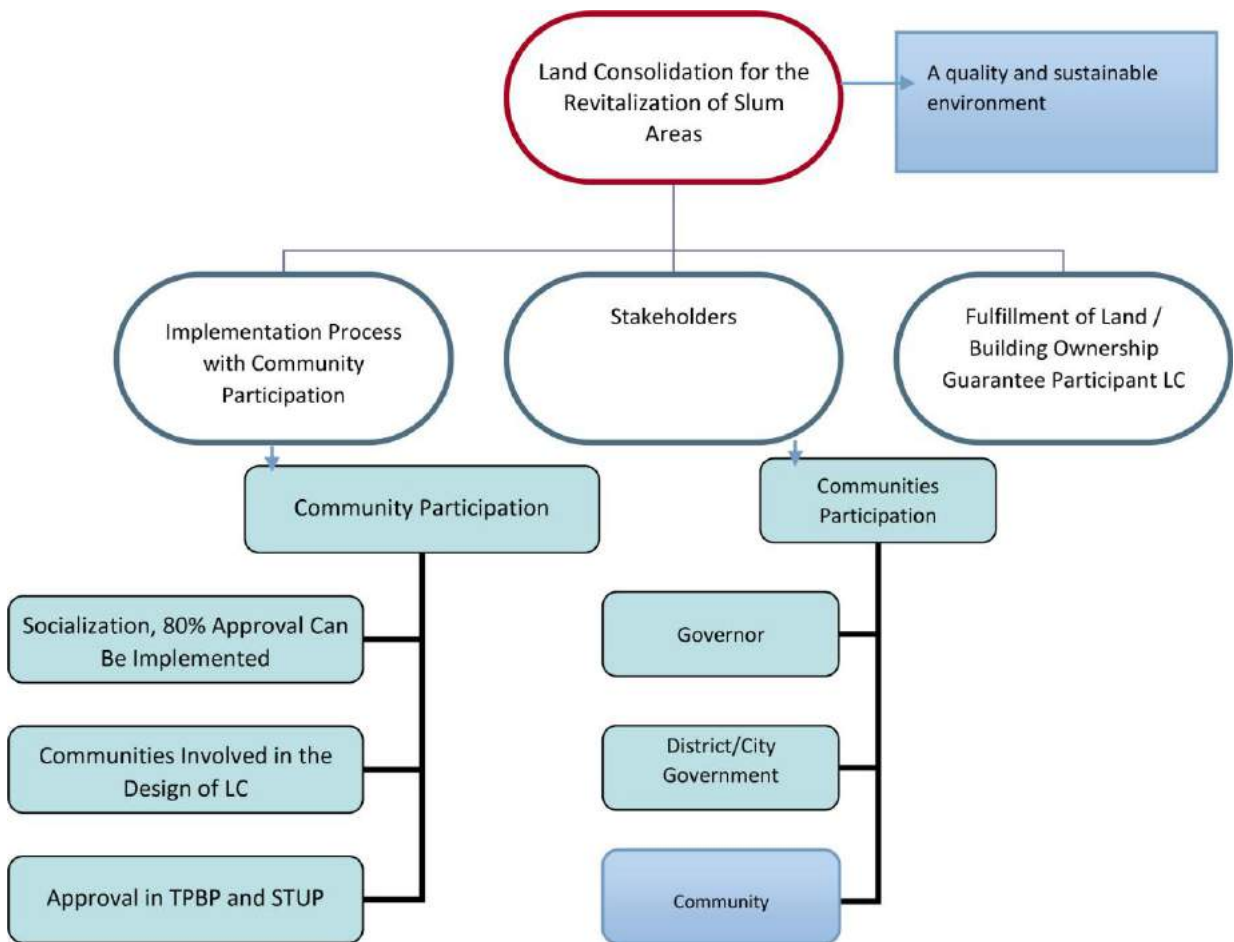


Figure 1. Advantages of Slum Areas Revitalization with Land Consolidation Program

F. The Role of Remote Sensing Data and Spatial Data in Vertically Land Consolidation

Remote sensing can play a key role in dynamic analyzing such as monitoring densification and expansion processes or assisting in the implementation of slum improvement policies. Remote sensing is capable of mapping the amount of slums areas or the general environmental conditions. A first attempt in bringing together the methodological expertise on slum mapping and monitoring for slum identification based on VHR imagery that included visual interpretation, object-based image analysis (OBIA), texture-based methods, and community-based approaches (Kuffer et al. 2016). Remote sensing is presently being used in numerous scientific research projects covering various fields and disciplines, where the results obtain interpret a vast volume of information on distant features and areas. A set of methodological procedures for acquisition and processing of digital records, obtained from sensors of various wavelengths of visible, thermal and invisible part of the spectrum is one of the definitions of the remote sensing.

Land consolidation is regarded as an instrument or entry point for rural development, urban development, and an important means of reconciling land use conflict. Remote sensing is a research method providing for identification and analysis of spatial-temporal elements of the environment, land use and land cover change, in order to obtain timely information on environment and influence of human activities. Land consolidation (LC) charge in general is done territorially because of situation detail need. Yet, in the mapping technology development especially remote sensing and geographic information system (GIS), causes some steps cannot be implemented territorially, for example the chosen of location and making flats for lower communities. In the context of that remote sensing technology, it is deserved to study as far as the extraction can be done, related to the thoroughness of interpretation and mapping result in tapping the information. On the other side, GIS role in land consolidation can be studied more especially in solving how the spatial model can be implemented. High resolution image which can be used as data source of LC location determination such as Quick bird, worldview, IKONOS, or small format areal photography. Standard Process that must be done by the radiometric, geometric, and refers to projection system. The variables and parameters that can be used in LC research area the quality of environmental settlement (building density, size, type, and sanitation), Vacant land potency (road accessibility, type of existing land), the suitability of land space planning, and road infrastructure availability (Tinus et al. 2007). Remote sensing data has also been used for land consolidation research using NDVI approach with MODIS data (Jin et al. 2017). Visual and spatial analysis of data collected using various methods and for various purposes that had been jointly integrated in the GIS environment had indicated the possibility to use the data collected by remote sensing, for the purpose of land cover examination. Methodology for further development of remote sensing use is a potential option for planning and implementation of future land consolidation surveys.

G. Conclusion

1. The lack of success of the slum revitalization program is caused by forced relocation and ignoring the rights of the people;
2. Rejuvenation Slum areas are essential to discipline the use and utilization of land in accordance with the spatial plan of the region that embodies a more qualified, healthy, regulatory, and sustainable environment;
3. Vertical land consolidation involving communities from planning, implementation, and construction of social facilities and public facilities is expected to overcome the problems of slum areas in some regions of Indonesia.
4. Visual and spatial analysis of data collected using various methods and for various purposes in remote sensing and spatial data is a potential option for planning and implementation of future land consolidation surveys.

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