

## THE LEVEL OF COMMUNITY PARTICIPATION IN LAND REGISTRATION ACTIVITIES IN INDONESIA

### *TINGKAT PARTISIPASI MASYARAKAT DALAM KEGIATAN PENDAFTARAN TANAH DI INDONESIA*

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**Abstract:** Community participation in the implementation of government projects, including land registration activities, has now increasingly incorporated and mainstreamed. The public is encouraged and invited to actively participate in the various stages of land registration process. However, the extent of community participation in land registration activities in Indonesia has not been thoroughly investigated. This paper aims to examine the level of community participation in supporting the Complete Systematic Land Registration, known as PTSL in Indonesia. Classical and new theories on community participation were used as the framework. They include A Ladder of Citizen Participation, the Wheel of Participations, and Consultations Complexity Chart. All stages in the PTSL were identified and classified based on their levels or quadrants on the three theoretical models. The findings show that 13 out of 32 steps in the PTSL have public participation involvement, 7 steps potentially involve community participation and 12 of them have no community elements. Stages in PTSL that have community participation are located at a higher level of the ladder and the wheels, as well as the most complex part in the chart.

**Keywords:** Community Participation; Land Registration; Level of Participation; the Wheel of Participation; Consultation Complexity Chart.

**Intisari:** Partisipasi masyarakat dalam pelaksanaan kegiatan proyek-proyek pemerintah, termasuk pada kegiatan pendaftaran tanah, kini semakin diarusutamakan. Masyarakat didorong untuk terlibat dalam berbagai tahapan proses pendaftaran tanah secara aktif. Namun, sejauh mana partisipasi masyarakat dalam kegiatan pendaftaran tanah di Indonesia belum diteliti secara menyeluruh. Tulisan ini bertujuan untuk menilai tingkat partisipasi masyarakat dalam kegiatan Pendaftaran Tanah, yang dikenal sebagai PTSL di Indonesia. Teori klasik dan baru tentang partisipasi masyarakat digunakan sebagai kerangka kerja kajian ini. Teori-teori tersebut adalah Tangga Partisipasi, Roda Partisipasi, dan Bagan Kompleksitas Konsultasi. Semua tahapan dalam PTSL diidentifikasi dan diklasifikasikan berdasarkan level atau tingkatan, dan kuadran pada tiga model teoritis tersebut. Temuan menunjukkan bahwa 13 (tiga belas) dari 32 (tigapuluh dua) tahapan kegiatan dalam PTSL ada keterlibatan partisipasi masyarakat, 7 (tujuh) langkah berpotensi melibatkan partisipasi masyarakat dan 12 (dua belas) di antaranya tidak ada keterlibatan unsur masyarakat. Tahapan dalam PTSL dengan partisipasi masyarakat semakin menuju pada tangga partisipasi yang lebih tinggi, dan kuadran roda partisipasi yang lebih jauh, serta pada bagian paling kompleks dalam Bagan Kompleksitas Konsultasi.

**Kata kunci:** Partisipasi Masyarakat; Pendaftaran Tanah; Tingkat Partisipasi; Roda Partisipasi; Bagan Kompleksitas Konsultasi.

## A. Introduction

Land registration can be defined as the formal process of recording land ownership or land use rights (McLaughlin and Nichols, 1989); (Henssen, 1995). Land registration is the government's responsibility as part of land administration activities to create a prosperous society with inclusive economic access for all, including the poor (Zevenbergen et al., 2013). The success of a country in conducting land administration can be measured based on several criteria and indicators, including security, clarity and simplicity, timeliness, fairness, accessibility, cost, and sustainability (Burns et al., 2006). These key indicators might be used to measure efficient and effective land administration systems. These key indicators also used to systematically identify and consider future challenges for projects seeking to improve land administration systems. The land administration system in Indonesia needs incremental improvement. Based upon Ease of Doing Business (EoDB) Index, as a result of global assessments in 2020 shows the cost, time, procedures, and quality of registering property in Indonesia, with an assessment score between 0-100, only gets a score of 60, ranked 106<sup>th</sup> out of 190 countries (World Bank Group, 2020).

In Indonesia, land registration activities were carried out in two ways, namely, systematic and sporadic (Republic of Indonesia Government Regulation Number 24 of 1997, 1997). Systematic means that the government is actively carrying out activities, including planning, budgeting, and implementation (physical and juridical data collection), analyzing and providing the proof of rights document. While sporadic, the government is passively waiting for the public to submit registration for land claims by showing evidence in the form of rights (juridical data) and paying the costs incurred for all sporadic land registration activities.

The history of land registration activities in Indonesia showed that community involvement in systematic land registration activities plays a critical role in the success of the process. An example of community involvement in systematic

land registration activities is the Reconstruction of the Aceh Land Administration System (RALAS). RALAS was part of the reconstruction and rehabilitation activities carried out by the government in the range of 2006 to 2009 after the catastrophic earthquake and tsunami disaster in Aceh and its surroundings. The RALAS was not only to carry out the reconstruction of the boundaries of the registered land parcel, which were destroyed by the disaster but also to carry out registration for lands that have not been registered in all affected areas. This activity was not easy to do without involving active community participation so that community-based RALAS is also called as Community-Driven Adjudication (CDA)(BPN, 2006). Based on the success stories of RALAS, it is proven that the community participation model is advantageous to support the implementation of activities that require a lot of human resources.

The provision of human resources in the field of land registration has become a significant issue in Indonesia since there have been massive attempts to accelerate land registration. Various efforts have been made to expedite the provision of measurement and mapping personnel to support the acceleration of land registration activities. Still, these efforts have not yet delivered optimal results. With the demand for accelerated land registration but constrained by a limited amount of human resources, the Ministry of ATR/BPN carries out systematic land registration activities involving community participation, namely Community-Based Complete Systematic Land Registration (Direktorat Jenderal Infrastruktur Keagrariaan Kementerian ATR/BPN, 2018). Having the community participation, it is expected that PTSL activities can be carried out more efficiently in terms of time, cost, and human resources but still reach the quantity and quality of land registration products that meet the targets and specifications set. How far the role of the community to carry out each node of land registration activities needs to be examined by referring to existing theories of community participation.

This paper aims to investigate the implementation of the participatory mapping concept in the application of PTSL in Tanggamus Regency, Lampung Province, and Grobogan Regency, Central Java Province. In 2017 the Land Office of Tanggamus District implemented PTSL with community-based participation. With the community participation, PTSL activities in Tanggamus District were considered successful because the workload was huge with faster completion. With community participation, as many as 47,340 parcels of land can be identified (delineated) on the work map. As many as 27,000 fields have fulfilled the requirements for certificate issuance (Ministry of ATR/BPN, 2018a). In 2018 the Land Office of Tanggamus District continued the activities of Complete Systematic Land Registration involving community participation in 4 (four) Districts, namely Bulok District, Cukuh Balak District, Limau District, and Talang Padang District (Yulianto, 2018). In Limau Sub-district, namely Kuripan Village, in 2018, the Ministry of ATR / BPN in cooperation with the Netherlands Cadastre try to apply the concept of land registration with Community Participation, namely Participative Land Registration (PaLaR). In addition to Tanggamus District, PaLaR was also implemented in Wandan Kemiri Village, Klambu Sub-district, Grobogan Regency, Central of Java Province is also the objects in this study. This PaLaR is different from community-based PTSL, where the role/participation of the community was more expanded (Aditya et al., 2020), These differences will be discussed in the third sub-section of this paper.

In the PaLaR, the implementation of community participation is supported by the use of Mobile GIS technology, in this case, using the Meridia Collect application. The participatory approach using GIS technology (Participatory GIS) is an object that will be seen whether it is a factor that can increase the level of community participation at the nodes of land registration activities at the study site. Participatory GIS is an effort to utilize GIS technology in the context of the needs and capabilities of a community that involves development projects and programs (Abbot *et al.*,

1998). In addition to this understanding, Participatory GIS is defined as field research activities that use GIS technology by the community or a community related to social change (Sieber, 2003). The application usage training is conducted for one week, which is carried out by a training team. The trainees involve 20 (twenty) trainees in Kuripan Village and 20 (twenty) trainees in Wandan Kemiri Village. Participants in this training are called the Community Land Registration Committee (CLRC). The CLRC consists of people living in the study site where the members are youth groups, both women and men, as well as RT heads and respected village elders in the area, so there is a combination of young and old, male and female.

Community involvement in the implementation of projects carried out by the Government has now increased and mainstreamed, including in land registration activities. Some researchers are closely related to the theme of this paper. Research on evaluation of the applicability of participatory approaches in the validation of boundaries of land parcels in land registration has been carried out by Mustofa, Aditya, and Sutanta (2018). The results of this study shown that the participatory map contributed to improving the quality of land registration map but suffers a level of detail concerning the actual shape and area of land boundaries. On the other aspect, the quality and usability analysis of land registration with participatory approaches/Participation Land Registration (PaLaR) in rural areas that are focusing on data quality, cost, and time carried out by Aditya et al., (2020). The study results concluded that in terms of quality of participatory mapping for PaLaR could be improved by the use of Low-Cost GNSS measurement equipment, dan in terms of cost and time costs indicate efficiency.

Another study investigating critical aspects of developing a conceptual participatory framework for a Fit For Purpose (FFP) Land Administration System (LAS) based on Volunteered Geographic Information (VGI) was conducted by (Moreroi, Fairbairn and James, 2018). This study is applied in the local process, in the context of the custom-

ary land tenure system in Botswana. These aspects have been successfully implemented in the field of case studies to demonstrate the application and role they can play in ensuring that VGI is reliable and following the legal and institutional regulations of the Land Council.

However, there are no studies that clearly illustrate to what extent community participation in land registration activities in Indonesia. Some theories of community involvement are used as a tool to analyze the object being studied. Classical and new model on community participation were used as the framework. They include A Ladder of Citizen Participation, the Wheel of Participations, and Consultations Complexity Chart. The results of this study are expected to provide a theoretical and critical review and also a practical description of the community participation model in land registration activities in Indonesia.

## **B. Theory/Model of Community Participation**

Some definitions regarding community participation are explained below. One description of community participation expressed by Okello et al. (2009) stated that community participation is an interactive process that involves communication, hearing, consultation, mergers, and collaboration with the community, as partners who give approval and opinions in the process of decision making. Community participation forms a complex intrinsic value, in which to understand it completely; its scope needs to be locked (Sarkissian et al., 2003). It should be understood that participation differs from the consultation. A decision taken from the community is an indication of community participation. Information dissemination that has nothing to do with empowerment and control from the community is something new at the level of consultation.

There are differences in perceptions and opinions regarding community participation among scientists and practitioners. Scientists argue that representative democracy aims to reduce conflict, while participatory democracy uses friction as a social and political tool, and in general, theorists

say that public participation is about equity and representativeness in contrast practitioners are talking about refining the methods they employ (Wendy Sarkissian *et al.*, 2003). Community participation can legitimize programs/activities carried out; participation is intended to find public desires; reduce the potential conflict, and provide necessary knowledge for people's representatives to win the next election (Bishop, 1999). While practitioners believe that the mechanism of participation prioritizes innovation that encourages community empowerment, the arrangement of involvement makes the community as a jury, prioritizing agreements with the community, holding panel discussions to get input from the community (Carson *et al.*, 2003).

Several main reasons on the importance of community participation, as pointed out by Heywood *et al.* (2004), are increases democracy and service accountability; increases social cohesion; increases understanding, knowledge, and experience that are important in the regeneration process; defines community needs. Community participation also enables policies to be relevant to local communities. It adds good economic value through voluntary mobilization to provide regeneration and through skills development. It increases employment opportunities and enhances community welfare, as well as provides opportunities to develop existing skills and networks needed to overcome social exclusion, promotes sustainability since members of the community feel ownership, and builds confidence and skills.

In general, enabling the community to be carried out in the entire activity cycle (WEDC, 2005). They include needs assessment (finding ideas about the desired development, prioritizing goals, and negotiating with institutions), planning (formulating and determining objectives and criticize plans), mobilization (raising awareness regarding needs, building or supporting organizations within the community), training (training in formal and informal training activities to improve communication, construction, maintenance skills, and financial management). Furthermore, which are parts of the cycle of an event

that can involve community participation according to WEDC, (2005), are implementation (involvement in management, contributing directly to construction, operations, and maintenance activities with labour and materials, donating cash for financing, payment service, or membership fees for community organizations), monitoring and evaluation (participating in the assessment of results that have been done, identifying improvements that can be made and redefining needs).

Several studies have discussed the nature and extent of participatory land management, emphasizing the importance of consultation and agreement between investors, the state and the community, one of which is a case study in the district of Massingir, Mozambique (Otsuki, Achá, and Wijnhoud, 2017). The results of the study emphasize that in building agreements between the parties involved they must actively apply internationally recognized principles of Free, Prior and Informed Consent (FPIC), where the consultation process must be free without coercion, prioritizing the public interest and more informative in promoting inclusive and equitable land governance (Fontana and Grugel, 2016).

The ability of civil service and local authorities generally determines the effectiveness and efficiency of land administration that is limited by the political and social environment within a regime, where the assessment is based on critical environmental elements for land administration, namely social clarity and conformity informally recognized rights, and the regime's ability to implement a system that recognizes these rights, recognition given by the regime to populations living under customary arrangements, and levels of disputes over land rights, formal and alternative dispute resolution mechanisms available to resolve these disputes, and the efficiency and effectiveness of this mechanism (Burns et al., 2006). These fundamental elements are essential things that form the basis of the fit-for-purpose approach as a new paradigm in land administration, namely focusing on the goals and the best way to achieve them; flexible design to work within limits, and

emphasizes the perspective of incremental improvement to provide applicability and sustainability (Enemark and McLaren, 2017).

Since the adoption of Web 2.0 and Web 3.0 technologies, many terms related to community participation have emerged and are commonly used in scientific publications that focus on public knowledge in geospatial science and technology. These terms include Participatory Geographical Information System (PGIS), Public Participation Geographic Information System (PPGIS), Collaborative Geographic Information System (CGIS), Participatory Mapping (PM), Voluntary Geographic Information (VGI) and Spatial Data Crowdsourcing (CSD). The differences in these terms can be identified based on the method used, the history of the appearance of the terms, users, and the design of space and time meetings (Kusmiarto, Yulfa, and Mustofa, 2018). Other studies have concluded that Geographic Information System (GIS) offers a tool that can be used to help the public meaningfully involved in the decision-making process that affects their community (Jankowski, 2009) and also as a bridge to overcome the communication gap between public and expert knowledge (Zolkafli, Liu and Brown, 2017).

This paper reviews the adoption of community participation concept in PTSL activities based on the theory of A Ladder of Citizen Participation proposed by Arnstein, (1969), The Wheel of Participation Theory put forward by Davidson, (1998), and Consultation Complexity Chart Theory proposed by Angela Hazelbroek (1998). Each of these theories is explained in the following sub-chapters:

### **1. A Ladder of Citizen Participation.**

There are many theories and models about community participation in activities that directly or indirectly affect people's lives. A Ladder of Citizen Participation proposed by Arnstein (1969), is one of the classic and most influential theories of participation. This theory is based on the declaration that citizen participation as the power of citizens because involvement cannot be obtained

without sharing and redistributing power. This theory illustrates the levels of public participation in 8 (eight) steps that can be grouped into 3 (three) scales, namely: Level of Non-Participation, Level of Tokenism, and Level of Citizen Power. In detail, this model can be seen in Figure 1.

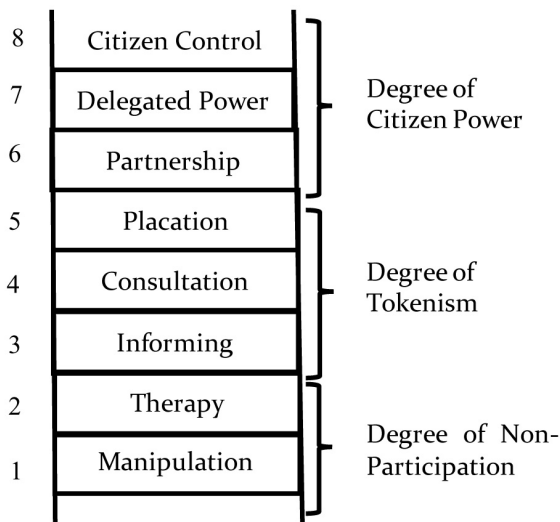


Figure 1. Eight steps on *A Ladder of Citizen Participation*. Source: (Arnstein, 1969)

Based on Figure 1, the level of non-participation is on the first and second steps, namely manipulation and therapy. These two steps illustrate the level of “non-participation” that some people have made to replace actual participation. Their real purpose is not to allow people to participate in the planning or carrying out programs, but to enable the power holders to “educate” or “cure” the citizens. The level of Tokenism is on the Informing, Consultation, and Placation steps. When citizens are offered full participation, citizens may indeed hear and express their opinions. Still, in this condition, they do not have the power to ensure that their views and ideas will be followed up by those in power. Basic rules allow citizens to argue, but permanent power holders who decide to be followed up or not. The level of power of the citizens is in the sixth, seventh, and eighth steps,

namely Partnership, Delegated Power, and Citizens Control. At this level, citizens can be involved in “Partnerships,” which allow them to negotiate with power holders. On the top step, “Power Delegation” and “Citizen Control,” citizens with a majority of seats can make decisions, or have full managerial power.

**2. The Wheel of Participation.**

Another theory/model of participation is The Wheel of Participation. Davidson (1998) proposed this model, which defines that a decision that will be made involving community participation as a quadrant in the wheel of the project. The right strategy is chosen according to the direction of the wheel’s clock rotation. The wheel will only rotate well as a model if this decision is taken collaboratively. If not, the project can be considered as information only, and only a limited approach is chosen. Variations in communication categories and participation processes are described in four quadrants on the wheels, according to Figure 2.

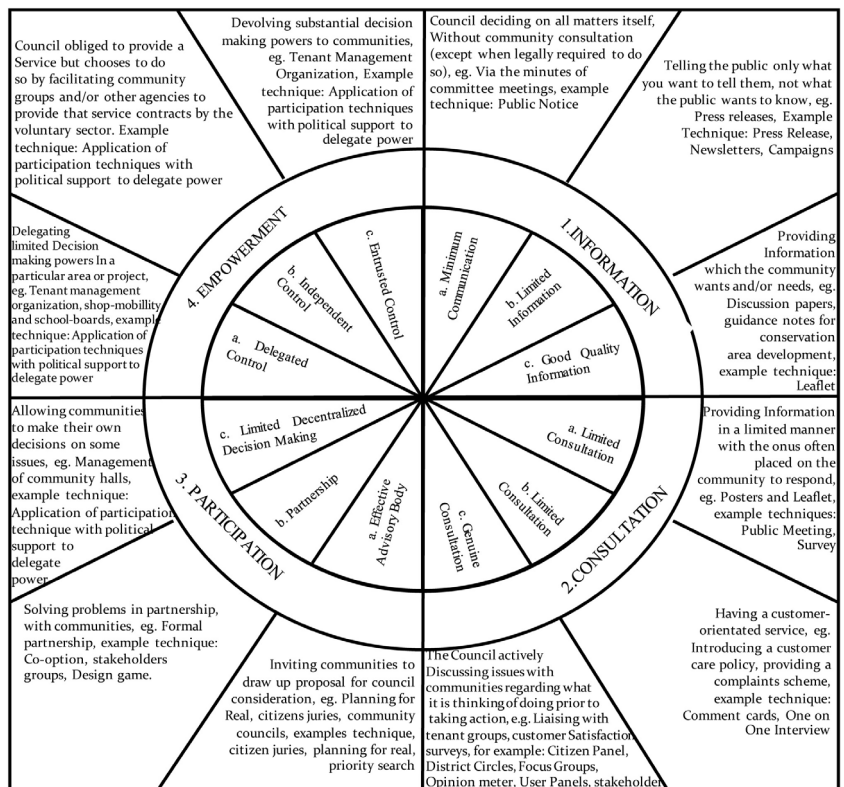


Figure 2. The Wheel of Participation. Source: Modification from (Davidson, 1998)

Figure 2 shows 4 (four) the Wheel of Participation quadrants (Davidson, 1998) with a few modifications. Each quadrant is divided into 3 (three) stages (a, b, c). The provision of this code aims to simplify the categorization of the participation level and facilitate the analysis of participation level in the object being studied. For example, in quadrant 1 (Information) consists of a: Minimal communication; b: Limited information; c: Good quality information. If an activity is categorized as 1c, the level of participation is on useful quality information. Another example in quadrant 3 (Empowerment) consists of a) Delegated controls; b) Independent control; c) Reliable control. If an activity is categorized as 3a, it means that the level of participation is at the level of empowerment with delegated control.

### 3. Consultation Complexity Chart

The theory that explains the concept of the complexity of the community participation process is proposed by Hazelbroek (1998), namely Consultation Complexity Chart.

CONSULTATION COMPLEXITY CHART			
The degree of Technical and or Design Difficulty			
I. Low	II. Medium	III. High	
<b>Ia. Least Complex, Low-Level Strategy</b>	<b>IIa. Low-Moderate Complexity, Clear communication of design. Ideas Brochure and Display likely to be best forms of communication with written feedback</b>	<b>IIIa. High Complexity, Technical and design ideas need to be communicated and ample time allowed for discussion at all stages</b>	The degree of Political Sensitivity or Potential Community Impact
<b>Ib. Moderate Complexity, Political and community issues need to be drawn out early in scoping exercise. A transparent process for community involvement needs to be developed and communicated.</b>	<b>IIb. Moderate Complexity, Medium Strategy Required</b>	<b>IIIb. Moderate Complexity, Attention to both scoping of community issues, and communication of technical aspects in a jargon-free manner.</b>	
<b>Ic. Moderate to High Complexity, As above. Elected members must be involved at the earliest stage. Involve key community and resident groups in the design of the process and in defining the evaluation criteria.</b>	<b>II.c High Complexity, High-level strategy required. Essential to allow the election of members and key community groups involvement at the earliest stage. Allow more than minimum time for response and feedback.</b>	<b>IIIc. Most Complex, High-level strategy required. Skilled independent facilitation of all workshops/meetings etc. allow for the optimum time.</b>	
			a. Low b. Medium c. High

Figure 3. Consultation Complexity Chart, Source: Modification from (Hazelbroek, 1998)

This theory explains the concept of complexity participation process based on the influence level of political sensitivity and the influence of the potential of the community and the level of difficulty of design and technique. The theory can be seen in detail in Figure 3:

Figure 3 shows the Consultation Complexity Chart with a slight modification that is adding the code for each matrix cell based on the column of technical degree, design difficulty (I, II and III) and degree of political sensitivity lines and potential community impact (a, b, and c). The provision of this code also aims to simplify the categorization of participation level and facilitate analysis participation level in the object being studied. If a participation activity is given code IIc, it means that the activity falls into High Complexity (medium degrees in the technical and design difficulties with a high degree of political sensitivity and significant potential community influence). Another example if a participation activity is given code IIIb means that the activity falls into Moderate Complexity (high degrees of technical

or high design difficulties with a medium degree of political sensitivity and the potential for moderate community influence).

### C. Results and Finding

#### 1. Community Participation in PTSL

To study the theoretical model of community participation in PTSL activities at the Ministry of ATR/ BPN required direct observation of PTSL activities. Community participation in PTSL activities has been included in the Complete Systematic Land Measurement and Mapping Technical Guidance issued by the Directorate General of Infrastructure of Ministry of ATR/

BPN Year 2018. Still, of course, the implementa-

tion of the Technical Guidelines varies in each Land Office. In this study, the sample participation models observed were community participation activities in Tanggamus Regency and Grobogan Regency. The reason for choosing these observation locations was because PTSL in Tanggamus Regency and Grobogan Regency were considered to be successful in implementing a community participation model for accelerating the implementation of PTSL. The indicator is that the volume targeted is enormous, with faster work completion. With community participation, in Tanggamus Regency, as many as 47,340 parcels of land can be identified (delineated) on the work map. As many as 27,000 fields have fulfilled the requirements for the issuance of land certificates (Ministry of ATR/BPN, 2018).

In Tanggamus and Grobogan Regency, a Pilot Project, Participative Land Registration (PaLaR), is being carried out. The project is a collaboration among the Ministry of ATR/BPN, Netherland Cadastre, and Universitas Gadjah Mada. The PaLaR Pilot Project was carried out in Kuripan Village, Limau District, Tanggamus Regency, and Wandan Kemiri Village, Klambu District, Grobogan Regency. PaLaR is an attempt to apply the concept of land registration with community participation that different from community-based PTSL that has been implemented in the Tanggamus Regency and Grobogan Regency. Here the role and involvement of the community is more expanded. Observations were made by looking at the entire PTSL and PaLaR processes at each activity node. Each node of activity is categorized based on the presence and absence of the community's role in the nodes of action. Besides that, activity nodes with the potential for community participation were also identified. The observation of PTSL flow activities in Tanggamus and Grobogan Regency, as well as the PaLaR activities, are described in Figure 4.

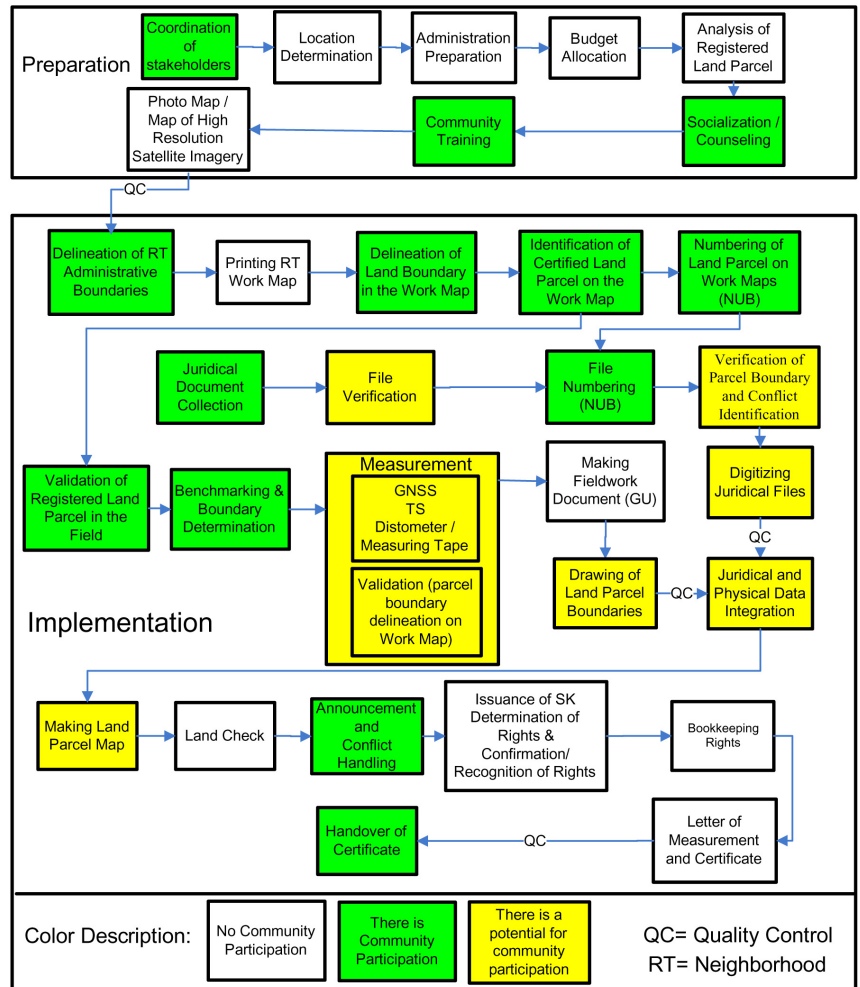


Figure 4. The flow of PTSL in Tanggamus and Grobogan Regency. Source: (Observation Result)

Based on government regulations (Ministry of ATR/BPN, 2018b), the stages of implementing PTSL consist of 13 (thirteen) steps, namely: 1. Planning; 2. Determination of location; 3. Preparation; 4. Establish a PTSL adjudication committee and task force; 5. Counselling; 6. Physical and juridical data collection; 7. Research legal data for proof of rights; 8. Announcement of physical and juridical data and their ratification; 9. Confirmation of conversion, recognition of rights, and granting of rights; 10. Bookkeeping rights; 11. Issuance of certificates of land rights; 12. Documenting and submitting the results of activities; and 13. Reporting. Whoever, the stages can be different in their implementation in the field. Based on the observations at the study location, the application of PTSL activities consisted of 32 (thirty-two) nodes of activity, described in Figure 4. Based



on Figure 4, it can be seen that of the 32 (thirty-two) nodes of PTSL activity in the location of the research, there are 13 (thirteen) or (40.62%) nodes of activities in Tanggamus and Grobogan PTSL which involve community participation. At the same time, in PaLaR, there are 20 (twenty) or (62.5%) activity nodes involving community participation. For the activities at PTSL Tanggamus and Gerobogan, where there is no community participation and in PaLaR, there is community participation, and the nodes are included as a potential for community participation.

## 2. Result of Theoretical Analysis

Each step of PTSL activity that involves community participation and which potentially involves the active role of the community is grouped/classified based on the theory of A Ladder of Citizen Participation, the Wheel of Participation Theory, and the Consultation Complexity Chart. Of course, these classifications use subjective analysis by considering the theoretical definitions of each class in each of these theories. The results of the study are described in Table 1.

Based on the theory of A Ladder of Citizen Participation, PTSL activities in the study area that involve community participation and potentially involve community participation are spread over 4 (four) levels of the non-sequential ladder. They include the 3<sup>rd</sup> level (information), 6<sup>th</sup> (partnership), 7<sup>th</sup> (power delegation), and 8<sup>th</sup> (citizen control).

Based on The Wheel of Participation theory, all four quadrants contain or potentially contain community participation in PTSL activities. In detail, the community participation activities can be in six sub-quartered, that is 1c (good quality information), 3b (partnership), 3c (limited, decentralized decision making), 4a (delegated control), 4b (independent control) and 4c (Entrusted control).

Moving to the Consultation Complexity Chart, PTSL activities that involve or potentially involve community participation are spread over in the seven elements of the chart. They include the component of Ia (least complexity), Ib (moderate

complexity), Ic (moderate to high complexity), IIb (moderate complexity), IIc (moderate complexity), IIIb (moderate complexity), and IIIc (most complex).

Based on the brief description above, PTSL activities have a high degree of public participation, albeit to various levels. In Arnstein's model, PTSL included in four stairs, including the three highest steps. The condition is also occurring in the Wheel of Participation model, where PTSL activities can be classified in the higher level of every quadrant. The degree of technicality and potentiality of community participation in the PTSL, as categorized according to the Consultation Complexity Chart, is also high. A detailed assessment is presented in Table 1.

Table 1. The Analysis Results

No	KEGIATAN	COMMUNITY PARTICIPATION				Information	A Ladder of Citizen Participation	The Wheel of Participation	Consultation Complexity Chart
		PTSL Tanggamus	PTSL Grobogan	PaLaR	Information				
<b>I. PREPARATION</b>									
1	Coordination of stakeholders	Yes	Yes	Yes		6	3b	IIIc	
2	Location Determination	No	No	No					
3	Administration Preparation	No	No	No					
4	Budget Allocation	No	No	No					
5	Analysis of Registered Land Parcel	No	No	No					
6	Socialization / Counseling	Yes	Yes	Yes		3	1c	IIb	
7	Community Training	Yes	Yes	Yes		6	3b	Ic	
8	Photo Map / Map of High-Resolution Satellite Imagery	No	No	No					
<b>II. IMPLEMENTATION</b>									
9	Delineation of RT Administrative Boundaries	Yes	Yes	Yes		7	3c	IIIb	
10	Printing RT Work Map	No	No	No					
11	Delineation of Land Boundary in the Work Map	Yes	Yes	Yes		7	3c	IIIb	
12	Identification of Certified Land Parcel on the Work Map	Yes	Yes	Yes		7	3c	IIIb	
13	The numbering of Land Parcel on Work Maps (NUB)	Yes	Yes	Yes		7	3c	Ia	
14	Judicial Document Collection	Yes	Yes	Yes		7	3c	IIb	
15	Judicial Document Verification	No	No	Yes	There is a potential for CP	8	4a	IIIb	
16	File Numbering (NUB)	Yes	Yes	Yes		7	3c	Ia	
17	Verification of Parcel Boundary and Conflict Identification	No	No	Yes	There is a potential for CP	8	4a	IIIc	
18	Digitizing Juridical Files	No	Yes	Yes	There is a potential for CP	7	3c	IIb	
19	Validation of Registered Land Parcel in the Field	Yes	Yes	Yes		8	4a	IIc	
20	Benchmarking & Boundary Determination	Yes	Yes	Yes		7	3c	IIc	
21	Measurement	No	No	Yes	There is a potential for CP	8	4c	IIIc	
22	Making of Fieldwork Document (GU)	No	No	No					
23	Drawing of Land Parcel Boundaries	No	No	Yes	There is a potential for CP	7	4a	IIb	
24	Judicial and Physical Data Integration	No	No	Yes	There is a potential for CP	7	4a	IIb	
25	Making Land Parcel Map	No	No	Yes	There is a potential for CP	7	4a	IIb	
26	Land Check	No	No	No					
27	Announcement and Objection Handling	Yes	Yes	Yes		6	4b	IIIc	
28	Issuance of SK Determination of Rights & Confirmation / Recognition of Rights	No	No	No					
29	Bookkeeping Rights	No	No	No					
30	Letter of Measurement and Certificate	No	No	No					
31	Handover of Certificate	Yes	Yes	Yes		6	3b	Ic	
32	Quality Control (QC)	No	No	No					

Colour Information: Green: There is Community Participation  
Yellow: There is a potential for community participation (CP)  
White: No Community Participation

Based on Table 1, it can be seen that all of the steps of PTSL activities at the study area, according to the Arnstein's theory, are at the level of tokenism and the level of citizen power. Included in the level of Tokenism at level 3 (information) is socialization/counselling activities. In this socialization activity, citizens are offered full participation, citizens may indeed hear and be heard, but in this condition, they do not have the power to ensure that their views and opinions will be followed up. Residents are welcome to argue, but the authority, in this case, the Land Office, remains the one who decides to be followed up or not.

Some activities of the community participation in PTSL activities at the study location have entered the level of citizen power, namely at the 6<sup>th</sup> level (partnership), 7<sup>th</sup> (delegated power), and 8<sup>th</sup> (citizen control). Activities included in the 6<sup>th</sup> level (partnership), are on stakeholder coordination activities, community training, announcement and handling of objections, and at the submission of certificates. Activities included in the 7<sup>th</sup> level (power delegation) include delineation of RT (neighbourhood) administrative boundaries, delineation of land parcels on the work map, identification of land parcels registered/certified in the work map, the numbering of land parcel on the work map (NUB), collection and numbering of juridical files as well as benchmarking and determination of boundaries. There are several activities that have community participation in PaLaR but not yet in the PTSL (potentially community participation), namely digitizing juridical files, drawing land boundaries, integration of physical and juridical data, and making maps of land parcels.

Furthermore, those included in the highest level (the 8<sup>th</sup>) or the level of citizens' control are the validation of registered/certified parcels in the field. At the level of citizen control, some activities have the potential to involve community participation. There is community involvement in PaLaR's activities but not at the PTSL. They consist of parcel boundary verification activity, individual parcel verification, and conflict identifi-

cation, as well as land parcel boundary measurement in the field.

Based on the Wheel of Participation theory, PTSL activities at the study locations that involve and potentially community included in the 1c sub-quadrant (good quality information) is socialization/counselling activities. In the public meeting, the Land Office disseminates information on the proposed land registration project. There is also a Community Training and Handover Certificate program, which fits the definition of the partnership listed in the sub-quadrant 3b.

Out of 32 steps in PTSL, there are nine that can be classified into sub-quadrants 3c (limited, decentralized decision making). They include activities of delineation of RT administrative boundaries, delineation of parcel boundaries on work maps, identification of registered/ certified land parcel on work maps, the numbering of land parcel on work maps (NUB), the collection and numbering of juridical document files as well as the benchmarking and the determination of land boundaries. In the delegated control sub-quadrant (4a), seven activities can be included: juridical file verification activities, verification of individual parcel boundaries and conflict identification, validation of registered parcel, drawing of land parcel boundaries, juridical and physical data integration, making land parcel maps. Moving to the higher level of sub-quadrant 4b (independent control) and 4c (entrusted control), the number of activities that can be classified into these classes become lesser. The activity of the announcement and handling of objection can be identified to belong in the sub-quadrant 4b. Similarly, only one activity, measuring of land boundary, can be classified as fulfilling the criteria of entrusted control (4c).

Based on the complexity of the activity in the Consultation Complexity Chart model, two steps can be classified in 1a (low complexity), one step in 1b (moderate complexity), and two steps in 1c (moderate to high complexity). In 1a, there are activities of the numbering of the land field on the Work Map (NUB) and juridical file numbering (NUB). 1b class only consists of socialization

activities, while the Ic class consists of community training and handover of certificates.

In the higher level, two activities can be categorized in IIb, and four in the IIc. The juridical file collection and verification activities fit the criteria of IIb. Class IIc consists of stakeholder coordination activities, validation of registered land parcels in the field, benchmarking, and parcel boundaries determination.

Further, four steps belong to IIIb, and three activities in IIIc. Class IIIb consists of delineation of RT administrative and land parcel boundaries on the work map, identification of registered land parcel on the work map, and verification of juridical files. The verification of land parcel boundary and conflict identification, announcement and handling of objections, and land boundary measurement activities are included in the IIIc category (the most complex).

It is interesting and promising that in the framework of community participation, most of the activities in the land registration process categorized at a high level. In the Arnstein's Ladder of Citizen Participation, the community participation reaches the highest level. Similarly, in the Wheel of Participation and the Consultation Complexity Chart, land registration activities incorporated a high degree of community participation. Elements of the land registration activities cover the 'entrusted people' level and the most complex situation in terms of technicality and political sensitivity/community impact.

#### D. Conclusion

This paper provides theoretical, critical, and practical perspectives related to typical models in enabling community participation for systematic land registration activities. This paper illustrates to what extent community participation in land registration projects in Indonesia. The use of surveying and mapping technology and also GIS in the community participation activities can increase in the level of participation in A Ladder of Citizen Participation, increasing the sub-quadrant round of The Wheel of Participation and allowing the community to carry out activities with high de-

grees of technical/design difficulty and political complexity in the Consultation Complexity Chart. With training and simple instruction in the use of technology, the community can carry out activities that were previously considered complicated. It can only be done by educated and trained people in formal education for an extended period.

Nevertheless, there are things that impede the increasing incorporation of participatory activities to a higher degree. For example, there is a regulation that stipulates measurement and mapping activities of the land parcel can only be carried out by a person who already has a license as a surveyor officer. The more in-depth study on this theme needs to be done to provide alternatives in the formulation of regulations and policies issued by the government. However, this small impediment does not overshadow the fact that community participation has been the essential element of land registration activities in Indonesia.

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