

## ANALYSIS OF RESIDENTS' PARTICIPATION IN THE MAINTENANCE OF PUBLIC FACILITIES AND UTILITIES IN THE WIRANDA ASRI RESIDENTIAL AREA, STABAT DISTRICT

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### ABSTRACT

This study aims to analyze the level of citizen participation in the maintenance of public facilities and utilities in the Wiranda Asri Housing Complex, Stabat District. The research method used is descriptive qualitative with data collection techniques through observation, interviews, and documentation. The results show that citizen participation is present in various forms, namely labor participation (mutual cooperation), financial (contributions), ideas (deliberations), and socio-security (night watch). However, the intensity of participation among residents is uneven. Facilities such as neighborhood roads and prayer rooms are well maintained due to regular financial and labor support, while drainage and green open spaces are less supervised. Factors driving participation include awareness of direct benefits, a sense of ownership, and a culture of mutual cooperation. Inhibiting factors include limited time, lack of transparency of funds, minimal communication, and differences in social status and home ownership. This study recommends strategies to increase participation through strengthening communication systems, transparency of fund management, alternative participation schemes, and the formation of environmental management teams. With a more structured approach, citizen participation can become the foundation for sustainable management of public facilities in the housing complex.

### Introduction

Citizen participation in the maintenance of public facilities and utilities is a key factor in maintaining the sustainability of the quality of residential environments. In Wiranda Asri Housing, Stabat District, community involvement can be seen in various forms, ranging from the contribution of personnel in mutual cooperation activities, the provision of self-help funds, to participation in environmental deliberations. However, the level of citizen

participation is uneven; Some residents showed high enthusiasm, while others were passive and only relied on environmental administrators. Public facilities and utilities such as environmental roads, drainage, worship facilities, security posts, and green open spaces are the main concerns in maintenance activities. Residents who feel that they have a high concern for the comfort of their homes tend to be actively involved in environmental cleanliness activities and maintenance fees. They understand that the condition of good public facilities has a direct impact on the comfort, health, and even economic value of their property.

On the contrary, the low participation of some residents is caused by several factors, such as busy work, low sense of belonging to the environment due to the status of rented or newly occupied housing, and lack of coordination from RT/RW management. In addition, the absence of a structured management system such as routine maintenance schedules or clear division of roles makes some residents feel that the maintenance of public facilities is not their personal responsibility. The role of environmental administrators is very decisive in building a collective spirit. Environments that have an active and communicative RT chairman tend to be able to increase citizen participation through a persuasive approach and transparency in fund management. Communication media such as citizens' WhatsApp groups have also been proven to help accelerate the coordination of activities.

Table 1.1 General Facilities and Utilities Condition Data

Utilities / Utilities	Current Conditions	Frequency Treatment	of Funding Sources
Neighborhood roads	Good (not much damage)	1x per 6 months	Self-Help + Village Assistance
Drainage	Enough (sometimes clogged when it rains)	A Monthly Subscription	Citizen energy
Security post (poskamling)	Actively used	Night watch in turn	Citizen contributions
Places of worship (musholla)	Well-maintained	Cleaned weekly	Citizen Donors
Green open space	Underutilized	Rarely cleaned	No permanent manager yet

Based on data on the condition of public facilities and utilities in Wiranda Asri Housing, Stabat District, it can be seen that most of the environmental facilities are in fairly good condition, but their sustainability is highly dependent on the level of citizen participation. Environmental road facilities, for example, are in good condition with minimal damage. This shows that there is concern of residents in maintaining the accessibility of their environment. Although the frequency of maintenance is only carried out once every six months, the combination of funding from non-governmental organizations and village assistance reflects the collaboration between the community and the local government. This indicates that citizen participation in the form of finance is going quite well, although it still needs to be strengthened in the form of regular monitoring and reporting of road conditions.

Meanwhile, environmental drainage is in the adequate category, where waterways often experience blockages during the rainy season. Maintenance is carried out through monthly mutual cooperation, which shows that citizen participation is more dominant in the form of energy. However, the frequency of blockages that still occur shows that gotong royong activities have not run optimally or have not involved all residents. This means that existing participation is functional participation, has not achieved full or independent participation. In contrast to the previous two facilities, the security post (poskamling) was recorded to be actively used, and the rotating night guard system proved that there was a strong social participation. This shows that residents have an awareness of the importance of security as a collective need. The pattern of participation in this facility is direct and sustainable, as it involves physical presence and a sense of responsibility between residents.

The place of worship (musholla) is also in a well-maintained condition, with weekly maintenance supported by local donors. This facility actually shows more stable participation because it is based on religious and social factors. In the context of the study, this shows that citizen participation is stronger when it is associated with emotional and spiritual values, rather than just administrative obligations. On the other hand, green open spaces are the facilities with the least participation. The condition that is underutilized and rarely cleaned with the absence of a manager still reflects the weak sense of ownership of this facility by residents. The low participation in this area can be caused by the lack of activities that utilize the space, so that residents do not feel the urgency to maintain it. This illustrates that participation will not arise if there is no social function that is directly felt by the citizens.

Research on Citizen Participation *in the Maintenance of Public Facilities and Utilities* in Wiranda Asri Housing, Stabat District has a high urgency because it concerns the sustainability of the quality of community-based settlement environments. Currently, many residential areas are experiencing a decline in environmental quality after several years of inhabitation, not due to the limitations of initial infrastructure, but due to weak concern and involvement of residents in the maintenance of public facilities. Wiranda Asri's housing shows similar conditions: some facilities such as neighborhood roads and prayer rooms are well maintained due to funding support or religious motivation, while other facilities such as drainage and green open spaces are less than optimal due to the lack of consistent citizen involvement. This inequality in the level of participation indicates a gap between the provision of facilities and the social awareness to care for them.

Publication by Arfan Marwazi, Ihsan Azhari, and Abdiyanto (2023) in the article *Implementation of Infrastructure Development Planning in Deli Serdang Regency* examines the implementation of regional infrastructure development planning in five villages in Deli Serdang Regency, including road construction and factors that hinder the implementation of physical planning. The focus of this study is on the planning and implementation process of infrastructure as well as resource dynamics and regulations but does not explore the involvement of residents in the maintenance of facilities after construction is completed. Similarly, the article *Study On The Suitability Of Industrial Estates In The Northern Region Of Medan City To The Carrying Capacity Of The Environment* by Arini Chairunnisa, Ihsan Azhari, Abdi Sugiarto, and Abdiyanto (2024) uses a quantitative approach to evaluate the suitability of industrial land to the carrying capacity of the environment. Although discussing environmental issues, this research is

oriented towards the assessment of land and environmental characteristics in industrial estates, not on the social dimension or citizen participation in the management of residential facilities.

In addition, studies such as *the Regional Development Of Medan City* by Feby Milanie (2023) examine the influence of biogeophysical, economic, and institutional aspects on the supply and demand of clean water in the city of Medan. This study is important in the context of regional planning and resource policy, but the focus remains on policy analysis and macro structural variables, rather than on the involvement of local residents in the maintenance of residential facilities. Other research in the realm of Regional Planning, such as *the PRELIMINARY STUDY OF MEDAN CITY REGIONAL PLANNING* by Cut Nuraini, Arfan Marwazi, Abdiyanto, Abdi Sugiarto, and Feby Milanie (2023), uses the SWOT approach to formulate a strategy for the development of the Medan area. Although it identifies the potential and obstacles of regional planning, this study remains at the macro strategic planning stage, without exploring the dynamics of community participation in the maintenance of facilities at the micro community level.

If this phenomenon continues to be left unchecked, housing that was originally designed as a comfortable and healthy residential environment has the potential to experience environmental degradation, such as flooding due to unmaintained channels, decreased security due to a weakened patrol system, and loss of social interaction spaces because green open spaces are not utilized. Identify the dominant and low forms of citizen participation, so that the pattern of community involvement in environmental management can be known. Uncovering the driving and inhibiting factors of participation, which will be the basis for the preparation of strategies to strengthen the role of citizens in the future. Providing recommendations for a participation-based facility management system, so that environmental administrators, village governments, and housing developers have a more sustainable management model.

In general, it can be concluded that the level of citizen participation in Wiranda Asri Housing is in the category of being quite good, but it is still situational and not sustainable. In order for participation to increase and be more systematic, a strategy to strengthen citizens' institutions, transparency in fund management, and appreciation for active citizens is needed. Educational efforts about the importance of maintaining public facilities also need to be carried out so that all residents realize that the sustainability of the residential environment is not only the responsibility of the management, but the result of joint work.

### **Problem Identification**

Based on the phenomena that occur in the field, some of the problems that can be identified are as follows:

1. The level of citizen participation in the maintenance of public facilities and utilities is not evenly distributed; Some residents are active, but others are passive or not involved at all.
2. Certain facilities such as environmental roads and prayer rooms are well maintained due to funding support and a high sense of ownership, while other facilities such as drainage and green open spaces are poorly maintained due to a lack of coordination and management.
3. The system for organizing environmental care activities does not yet have a fixed mechanism, both in terms of schedules, division of tasks, and fund management.

4. Communication between environmental administrators and residents is not optimal so that some residents do not know the schedule of activities or feel that they are not involved in decision-making.
5. It is not yet known exactly what factors encourage and hinder the participation of residents in the maintenance of public facilities in the housing.

### **Problem Formulation**

Based on the identification of the above problems, the formulation of the problems in this study can be arranged as follows:

1. What is the level of citizen participation in the maintenance of public facilities and utilities in Wiranda Asri Housing, Stabat District?
2. What forms of participation do residents do in the maintenance of environmental facilities and infrastructure?
3. What factors encourage and inhibit citizen participation in the maintenance of public facilities in the residential environment?
4. What strategies can be applied to increase citizen participation in the management of public facilities and utilities in Wiranda Asri Housing?

### **Literature Review**

#### **Public Participation and Infrastructure Governance**

Public participation in infrastructure projects and maintenance is not only about physical presence in activities but also includes involvement in decision-making, supervision, and resource contributions (manpower and funds). Current literature emphasizes that the most effective forms of participation are those that are inclusive, sustainable, and interactive—not merely symbolic or ceremonial participation. Infrastructure governance models that accommodate citizen input tend to result in more targeted and community-accepted care.

#### **Indicators of Citizen Participation in the Maintenance of Public Facilities and Utilities**

Citizen participation in the maintenance of public facilities and utilities can be analyzed through several key indicators that describe the level of community involvement physically, socially, and institutionally. In the context of Wiranda Asri Housing, Stabat District, the indicators of citizen participation can be identified as follows:

a) Energy Participation (Physical Participation)

This indicator shows the direct involvement of residents through the contribution of personnel in environmental care activities, such as mutual cooperation to clean drainage, environmental road community service, and cleaning activities of public facilities. In Wiranda Asri Housing, the participation of workers can be seen in monthly mutual cooperation activities, especially in the maintenance of drainage and environmental cleanliness. However, the involvement of residents is not evenly distributed, because there are still residents who do not participate regularly. This shows that labor participation is partial and has not yet reached the level of full collective participation.

b) Financial Participation (Self-Help Fund)

Financial participation reflects the willingness of residents to contribute funds to support the maintenance and improvement of public facilities, both through regular contributions and voluntary donations. In the case of environmental roads and security posts, the contribution of citizens' funds plays a considerable role, especially in the form of contributions and contributions. The combination of citizen self-help funds with village assistance shows a collective awareness of the importance of sustainability of environmental facilities. However, transparency and a more structured contribution system are still needed for financial participation to take place sustainably.

c) Social Participation (Involvement in Collective Activities)

This indicator includes the involvement of residents in social activities that support the function of public facilities, such as the night watch system at the post, religious activities at the prayer room, and social interaction between residents. In Wiranda Asri Housing, social participation is seen quite strong at security posts and places of worship. The rotating patrol system and prayer room maintenance activities show a sense of shared responsibility based on social and religious values. This emphasizes that citizen participation tends to increase if the facility has a social function that is directly felt by the community.

d) Participation in Decision Making (Environmental Deliberations)

This participation reflects the participation of residents in the process of planning, decision-making, and evaluating maintenance activities for public facilities and utilities through the RT/RW deliberation forum. Although environmental deliberations have been carried out, the level of attendance and active involvement of residents is still limited. Some residents only accept decisions without being involved in the discussion process. This condition shows that participation is still at the consultative stage, has not yet achieved interactive participation or full community empowerment.

e) Participation in Monitoring and Ongoing Maintenance

This indicator assesses the extent to which residents participate in maintaining, supervising, and reporting damage to public facilities and utilities on an ongoing basis. In Wiranda Asri Housing, supervision of road and drainage conditions is still reactive, which is carried out after damage or problems appear. There is no routine reporting system or mutually agreed maintenance schedule. This shows that citizen participation in supervision is still weak and has not been systematically organized.

f) Institutional Participation and Coordination

This indicator relates to the role of local institutional structures, such as RT/RW, in organizing and encouraging citizen involvement. An environment with active and communicative RT administrators shows a higher level of citizen participation. The use of communication media such as citizens' WhatsApp groups has proven effective in accelerating the coordination of activities. However, the lack of a clear division of roles

and special management, especially in green open spaces, is a factor inhibiting citizen participation.

g) Sense of Belonging and Care for the Environment

This indicator is qualitative and is reflected in the attitude, awareness, and concern of residents for the condition of public facilities and utilities. Residents who have a high sense of belonging tend to be active in the maintenance of environmental facilities, especially in facilities that directly impact the comfort and safety of housing. Conversely, low sense of belonging, especially in residents with rental housing status or newly settled, contributed to low participation rates.

### **Social Capital as a Driver of Participation**

Social capital theory emphasizes the role of social networks, norms of mutual trust, and social attachment (trust & reciprocity) in encouraging collective action. Modern studies show that strong social capital at the environmental level increases the likelihood of voluntary participation in joint maintenance activities, disaster response, and maintenance of public facilities. Meanwhile, weak trust or fragmented networks hinder participation despite the important facilities.

### **Collective Action Theory and Commons Management Principles (Elinor Ostrom and Urban Commons Studies)**

Elinor Ostrom's work on the management of commons shows that communities can manage and maintain shared resources through local rules, monitoring, and social sanctions. Recent studies extend these principles to urban commons, highlighting the need for institutional designs that take into account the complexity of ownership, fragmentation of interests, as well as the role of local leadership and bridging social capital to ensure the sustainability of shared facility management.

### **Local Leadership Roles and Organizational Mechanisms**

Recent studies emphasize the role of informal/formal leaders (RT/RW chairs, religious leaders, neighborhood leaders) as drivers of bridging social capital—connecting different groups and facilitating collaboration. Effective leadership is also related to transparency in fund management, regular communication (e.g., WA groups), and the ability to mobilize external resources (village assistance). Without clear leadership and organizational mechanisms, mutual cooperation activities are often ad hoc and unsustainable.

### **Participatory Approach in the Planning and Design of Public Facilities**

The literature on participatory design and design of public facilities states that involving the community from the planning stage to operations fosters a sense of belonging and is a driver of maintenance participation. Field evidence from studies in Indonesia shows that projects that implement a participatory approach tend to increase social capital and citizens' commitment to the facilities generated. However, local contexts vary—adaptation and facilitation that are sensitive to local cultural differences are required.

### **Empirical Findings in the Indonesian Context**

Several post-2019 Indonesian studies highlight variations in forms of participation (energy, funds, attendance in deliberations), as well as driving and inhibiting factors such as busyness, sense of belonging, management communication, and trust in fund

management. These studies support the provisional empirical findings of Wiranda Asri: contributions are more consistent than labor participation; facilities with religious/security values are easier to mobilize participation; Unclear social/functional spaces will suffer neglect.

## **Method**

### **Research Approach**

This study uses a qualitative approach because the focus is on understanding social phenomena, namely the forms, motivations, and obstacles to citizen participation in the maintenance of public facilities and utilities in the context of real life in Wiranda Asri Housing. A qualitative approach was chosen to explore meanings, perceptions, and social processes that are not easily measured quantitatively, as well as to capture the nuances of social interaction and local dynamics that are at the core of the research problem.

### **Research Design**

The research design used is a qualitative case study. The case study allows the researcher to explore the phenomenon of citizen participation in depth within the constraints of the context, namely Wiranda Asri housing using various data sources (interviews, observations, documentation). Case study design is suitable when the purpose of the research is to understand the "how" and "why" of a phenomenon in a real-life context.

### **Location and Research Informant**

Research location: Wiranda Asri Housing, Stabat District. The core informants were selected by purposive sampling to obtain sources rich in information, including: the head of RT/RW, environmental administrators (head of the ward, treasurer), religious leaders, several residents with high and low participation levels (KK), and village/sub-district officers who handle environmental affairs. If needed, researchers can add informants through the snowball sampling technique of the initial informant recommending other relevant sources. The selection of informants follows the principle of diversity of roles so that variations in perspectives are captured.

### **Research Sample Determination Techniques**

In this study, in addition to purposively determining key informants, the researcher also used a random sampling technique to select some residents of Wiranda Asri Housing as supporting respondents. Random sampling is used to provide equal opportunities to every head of family (KK) in the housing population to be selected as a sample, so as to minimize the bias in the selection of informants and enrich the variety of perspectives of residents regarding participation in the maintenance of public facilities and utilities.

The application of random sampling is carried out by first determining the sample framework, namely all heads of families who are registered as active residents in Wiranda Asri Housing. From the list, the researcher selects samples at random, for example through a lottery or the help of a simple randomized table/tool, to determine the residents who will be interviewed or included in group observations and discussions. In this way, the selected

sample reflects the diversity of residents' backgrounds, both in terms of age, occupation, length of stay, and level of involvement in environmental activities.

The use of random sampling in this qualitative research does not aim to generalize statistics, but rather to capture the diversity of experiences and views of citizens in a more fair and balanced manner. Randomly selected citizens allow researchers to obtain data from individuals with different levels of participation, both active, passive, and less likely to be involved so that the dynamics of community participation can be understood more comprehensively.

### **Data collection techniques**

Data collection was carried out by triangulation method to increase the depth and credibility of the findings. The techniques used include:

1. Semi-structured in-depth interviews with key informants (RT/RW chairs, administrators, religious leaders, and residents). The interview guidelines were compiled based on research variables: form of participation, frequency, motivators, inhibitors, management mechanisms, and perception of benefits.
2. Participatory and non-participatory observations at the site (e.g. gotong royong activities, drainage conditions, green open spaces, poskamling) to record real behavior and physical conditions of the facility. Observation supports verification of interview and document data.
3. Focus Group Discussion (FGD) whenever possible, to capture group dynamics and residents' debates about facility maintenance. FGDs are useful for mapping consensus, conflicts, and collective solution ideas.
4. Documentation and document studies (RT/RW meeting minutes, proof of contributions, photos of facility conditions, WA group announcements) as additional data sources for triangulation.
5. Researchers' field notes that record context, impressions, and reflections during the data collection process.

The use of some of these techniques is intended to perform triangulation—combining data from various sources and methods—as a validation strategy in qualitative studies.

### **Research Instruments**

Due to its qualitative nature, the main instrument is the researcher himself (human instrument). However, researchers have prepared tools in the form of:

1. Semi-structured interview guide (list of topics and guide questions).
2. Observation checklist to assess the physical condition and maintenance activities of the facility.
3. FGD guidelines (discussion topics, facilitators, time).
4. Documentation forms to collect written or photographic evidence.

The instrument was piloted on several non-sample respondents to ensure the clarity of the question and the feasibility of implementation.

## Data Analysis Techniques

Data were analyzed qualitatively using a systematic thematic analysis/coding approach: interview transcription → repeated reading → formation of → categorizing → identification of key themes → interpretation and narrative preparation of findings. The coding process can refer to techniques recommended by modern qualitative coding practitioners, including open, axial, and selective coding cycles (or in vivo, descriptive, pattern coding) as per analytical needs. The use of qualitative analysis software is mentioned as optional to help with data organization and code tracking, especially if the volume of data is large.

## Results and Discussion

### What is the level of citizen participation in the maintenance of public facilities and utilities in Wiranda Asri Housing, Stabat District

In general, the participation of residents in Wiranda Asri is quite good but not even; There is a tendency for financial participation (contributions) to be higher than physical participation (labor) and participation in decision-making forums (deliberations). This pattern shows that residents in general are willing to contribute but the preferences of the form of contribution vary depending on capacity, motivation, and perception of benefits. Participation in the Form of Personnel (Gotong Royong) Data shows that 36% of residents always participate in mutual cooperation, 44% sometimes participate, and 20% never participate. This means that mutual cooperation works but is situational — many residents only intervene if reminded or if the activity feels urgent (e.g., cleaning drainage during the rainy season). This non-universal participation makes care that relies on collective labor less stable; Work that requires continuity (such as routine drainage cleaning) is often incomplete, leading to seasonal problems such as blockages.

Participation in the Form of Contributions/Funds For maintenance contributions, 60% of residents always pay on time, 24% pay if reminded, and 16% never pay. The high proportion of on-time payments indicates financial awareness of the need for joint maintenance—this is reflected in the relatively good condition of the environmental roads. However, groups that are in arrears or only pay when reminded become potential conflicts and reduce the transparency of fund management if there is no strong accountability mechanism. Participation in Deliberation / Decision Making Citizen attendance at Deliberation Meetings shows a pattern of 30% actively attending Each meeting, 40% attend occasionally, and 30% never attend. This illustrates the problem of representation and legitimacy of environmental decisions: decisions made by small groups risk less reflecting the will of the majority, while many uninvolved citizens feel that decisions are none of their business. This lack of participation also contributes to a weak sense of belonging to facilities that are not routinely discussed, such as green open spaces.

Variation in Participation between Facilities Participation is not homogeneous between facilities. Facilities that provide direct and emotional benefits (poskamling for security, prayer rooms for religiosity) tend to obtain higher and more sustained participation. On the other hand, facilities whose benefits are less visible or whose functions are ambiguous (green open spaces) get low participation are rarely cleaned up and do not have a permanent manager. Drainage showed organized labor participation

(monthly mutual cooperation) but was still disturbed by the frequency of blockages, indicating the limited effectiveness of episodic activities.

1. Factors Affecting Participation Rates The analysis of the findings showed a number of key factors:
2. Perception of direct benefits: facilities whose benefits are directly felt (security, worship) are easier to mobilize citizens.
3. Social capital & networking: communities with strong networks and trust find it easier to do collective work.
4. Leadership and organization: active management and systems (schedules, division of tasks, transparency of funds) improve consistency of participation.
5. Time constraints: 42% of residents stated that being busy at work is the main obstacle to labor participation.
6. Communication: lack of socialization/schedule makes some residents unsure when or how to get involved.
7. Sense of ownership: the status of the residence (tenant vs. owner) and the length of occupancy affect the sense of responsibility towards the shared facility.

**Implications for Sustainability of Facility Management** These conditions indicate that the maintenance of facilities that rely on voluntary participation will be vulnerable if organizational mechanisms and social incentives are not strengthened. Facilities that receive financial support will remain maintained in the short term, but without participation in decision-making and physical maintenance, the quality of service can gradually decline. Especially drainage and green open space are at risk of declining their function if participation patterns are not improved.

#### **Brief Recommendations to Increase Participation**

1. Strengthen communication and regular schedules (e.g., mutual cooperation calendars announced through WA groups and bulletin boards).
2. Increase transparency in fund management (periodic reports, contribution receipts) to foster trust.
3. Facilitate the role of permanent managers for green open spaces (volunteer groups or rotations of administrators) and create space utilization activities (community gardens, children's activities).
4. Adapt the form of participation by providing alternatives (e.g. volunteer weekends, material donations, guard schedules) so that busy residents can still contribute.
5. Strengthening social capital through joint social and religious activities that also include an environmental care agenda.

#### **What forms of participation are carried out by residents in the maintenance of environmental facilities and infrastructure**

Residents' participation in environmental management in Wiranda Asri Housing is not singular, but is present in various forms according to the ability, motivation, and perception of each resident. In general, forms of participation can be grouped into four main categories: energy participation, financial participation, thought/idea participation, and social-vigilance participation. Each form of participation has a different contribution to the sustainability of public facilities.

### 1. Participation in the Form of Labor (Gotong Royong)

Gotong royong is the most visible form of participation and is a tradition that is still maintained. Residents went directly to clean drainage channels, sweep neighborhood roads, trim grass in open spaces, and paint security posts. Although the level of attendance varies, this activity is an indicator that concern for the environment is still alive in the community culture. However, the implementation is often seasonal or incidental, more intense when problems occur such as floods or garbage accumulation.

### 2. Financial Participation (Contributions and Donations)

In addition to manpower, residents also contribute through the payment of regular contributions used to buy cleaning equipment, repair damaged roads, and fund the operational needs of security posts. In some cases, residents who are unable to attend gotong royong choose to replace labor contributions with financial contributions—a form of participation compromise that accommodates residents with limited time. Private donor donations are also seen strongly in religious facilities such as prayer rooms, suggesting that financial participation is also influenced by emotional and spiritual factors.

### 3. Participation in the Form of Thought and Decision Making

This form of participation emerged through citizen deliberation or environmental meetings. At this forum, residents who are active provide advice related to scheduling maintenance, fund management, and plans for the development of new facilities. Although the number of residents involved in the deliberations is not yet dominant, their presence reflects deliberative participation, namely the involvement of residents in the planning process, not just implementation.

### 4. Social Participation and Environmental Security

Participation is not only physical and financial, but also present in the form of social involvement. Examples are a rotating night watch system at security posts, reporting suspicious activities through citizen communication groups, and welcoming new residents so that they immediately feel part of the community. This form of participation contributes to a sense of security and social cohesion, which is an important part of the quality of the residential environment.

Based on observations in the field, the participation of residents in Wiranda Asri Housing has covered various dimensions: mutual cooperation, fund contributions, participation in deliberations, and social involvement. However, the intensity of each form of participation is uneven. Spontaneous participation (such as in the event of environmental problems) tends to be strong, while structured and sustainable participation still needs to be strengthened, especially in terms of schedule management, fair division of duties, and an appreciation system for active citizens. This diversity of forms of participation shows that residents actually have concern for the environment, but they need a better organizing mechanism so that all forms of participation can be managed consistently and sustainably.

## **What factors encourage and hinder citizen participation in the maintenance of public facilities in such residential neighborhoods**

The level of citizen participation does not occur automatically, but is influenced by various internal and external factors. Based on the results of observations and grouping of field findings, these factors can be divided into two major groups: motivators and barrier factors.

### **Factors Driving Participation**

1. **Awareness of Direct Benefits**  
Residents who feel direct benefits from facilities such as neighborhood roads, security posts, or prayer rooms tend to have a higher sense of responsibility to take care of them. For example, residents who live near drainage are more active in cleaning it because they feel the immediate impact if it is clogged.
2. **Sense of Belonging and Social Togetherness**  
The existence of a sense of belonging to the common environment creates a commitment to maintain public facilities. The spirit of mutual cooperation that is still maintained and communication between residents through WhatsApp groups and regular meetings strengthen social solidarity.
3. **Leadership and Role of Environmental Management**  
An active and communicative figure of the ward chairman or RT/RW administrator plays a big role in mobilizing participation. When the management is able to convey the invitation in a persuasive and transparent way, citizen involvement increases.
4. **Local Customs and Traditions**

The culture of mutual cooperation that is still inherent is an important social capital. Many residents attended not only because of obligation, but because social involvement has become a common habit.

### **Factors Inhibiting Participation**

1. **Busyness and Time Constraints of Residents**  
Some residents work outside the city or have long working hours, making it difficult to attend mutual cooperation or deliberations. This condition makes physical participation not always reliable.
2. **Lack of Transparency and Clarity in Fund Management**  
Some residents are reluctant to pay contributions if they do not know clearly the budget allocation. Unclear financial statements can reduce trust and cause apathy.
3. **Lack of Socialization and Information**  
Some residents do not know the schedule of environmental care activities because the information is not conveyed evenly. As a result, some are considered indifferent even though they do not know the time of the implementation of the activity.
4. **Differences in Social Status and Home Ownership**  
Residents who are tenants or have just occupied the neighborhood often feel that they do not have the same obligations as permanent homeowners. This causes inequality in participation between citizens.

## Factors Affecting Citizen Participation in the Maintenance of Public Utilities and Utilities

Residents' participation in the maintenance of public facilities and utilities in Wiranda Asri Housing, Stabat District is influenced by the level of awareness and sense of belonging to the residential environment. Residents who have been living for a long time and have permanent residences tend to show higher concern for the condition of public facilities. They view public facilities and utilities as part of a shared asset that must be maintained for comfort, environmental health, and the sustainability of residential quality. On the other hand, residents who have just settled in or have the status of tenants generally have lower emotional attachment, so participation in environmental care activities also tends to be limited.

In addition to awareness factors, the social and economic conditions of residents also affect the level of participation. Busy work is the main reason for the low involvement of some residents, especially in mutual cooperation activities that require physical presence. Many residents work outside residential areas with busy working hours, so they are not always able to participate in environmental activities. From the economic side, financial ability also determines the form of participation. Residents with better economic conditions tend to participate through contributions or donations of funds, while residents with economic limitations often feel burdened so they choose not to be actively involved.

The leadership factor and the role of environmental administrators, especially RTs and RWs, have a significant influence on the level of citizen participation. Environments led by administrators who are active, communicative, and transparent in the management of environmental activities and funds tend to have higher participation rates. Administrators who are able to invite, set examples, and build good communication with residents can foster trust and collective spirit. On the other hand, the lack of coordination and weak communication from the management can lead to the assumption that the maintenance of public facilities is entirely the responsibility of the management, not a shared obligation.

The existence of systems and mechanisms for managing public facilities and utilities is also an important factor that affects citizen participation. In Wiranda Asri Housing, the absence of a structured maintenance system, such as routine maintenance schedules and clear division of roles, causes citizen participation to be incidental and unsustainable. Facilities that have clear management, such as security posts with rotating night guard systems and places of worship with regular cleaning schedules, show a more stable level of participation than facilities that do not have a permanent manager, such as green open spaces. The directly felt benefit factor also plays a role in encouraging citizen participation. Facilities that are directly related to daily needs, such as environmental roads, drainage, and security posts, tend to receive higher attention and involvement because their impact is felt by residents. In contrast, facilities that are underutilized and lack a clear social function, such as green open spaces, show low participation rates. This indicates that residents are more encouraged to participate if the benefits of public facilities are felt directly in their daily lives.

Finally, communication and access to information factors also affect the level of citizen participation. The use of communication media such as citizens' WhatsApp groups helps accelerate the delivery of information related to environmental activities and the maintenance of public facilities. Environments with active communication tend to have better coordination and higher participation. However, the lack of equitable socialization and a direct approach to all residents causes some people not to be optimally involved in the maintenance of public facilities and utilities.

### **What strategies can be applied to increase citizen participation in the management of public facilities and utilities in Wiranda Asri Housing**

Based on the mapping of existing driving and inhibiting factors, it can be seen that citizen participation has actually been formed, but it is not yet optimal and not evenly distributed. Therefore, a strategy is needed that is not only inviting, but also organizes, strengthens a sense of belonging, and creates a flexible and sustainable participation mechanism. Strategies that can be applied include:

#### **1. Strengthening Communication and Information Systems**

One of the main obstacles to participation is the lack of equitable information. Therefore, environmental managers need to implement a more structured communication system, such as:

- a. Create an official RT WhatsApp group for the dissemination of activity information.
- b. Compile a gotong royong calendar and routine maintenance schedule that is pasted on security posts or bulletin boards.
- c. Using persuasive language, not instructional, so that residents feel invited, not commanded.

With more open communication, citizens will feel more involved and have the opportunity to respond according to their abilities.

#### **2. Transparency in Fund Management and Activities**

Citizens' trust will increase if the management of funds is carried out clearly and openly. Strategies that can be applied:

- a. Make periodic financial reports, both pasted and shared digitally.
- b. Prepare a budget per activity so that residents know the allocation of their contributions.
- c. Involve citizen representatives in the facility management team so that decisions are collective.

Transparency is not only about numbers, but also about a sense of justice and accountability.

#### **3. Provide Flexible Forms of Participation**

Not all residents can be physically present in the activity. Therefore, there needs to be an alternative participation system such as:

- a. Participation of personnel (present directly gotong royong),
- b. Financial participation (paying dues if unable to attend),
- c. Material participation (donating hygiene tools or materials),
- d. Participation of ideas and supervision (providing input or reporting if there is damage to the facility).

#### 4. Strengthening Sense of Belonging and Social Cohesion

Strategies that are more emotional and social are also important. For example:

- a. Insert environmental care activities in commemoration of holidays, recitations, social gatherings, or youth activities.
- b. Give symbolic awards to the most active residents or RTs, for example through announcements or charters.
- c. Hold an inter-block or inter-road cleanliness competition to build a positive spirit.

When participation is associated with pride and togetherness, then involvement will be more consistent.

With this system, citizens do not feel burdened alone, and participation becomes more inclusive and adaptive to various citizens' conditions.

#### 5. Formation of a Management Team or Public Facilities Task Force

For certain facilities that require regular management such as drainage and green open spaces, it is necessary to form a small team or permanent volunteers. This team is tasked with:

- a. Supervise the condition of the facility,
- b. Coordinating light treatment,
- c. Report if there is any damage or urgent problem.

Thus, treatment does not wait for mass mutual cooperation, but runs more reactive and managed. To increase citizen participation, the approach must touch on two main aspects: the structural aspect (organization and system) and the psychological aspect (motivation and sense of belonging). When the two go in harmony, the management of public means and utilities does not depend only on momentary invitations, but becomes a sustainable social habit.

### **Discussion of the Final Results of Citizen Participation in the Maintenance of Public Facilities and Utilities**

Based on the results of measurements and field analysis, it can be concluded that the level of citizen participation in the maintenance of public facilities and utilities in Wiranda Asri Housing, Stabat District is in the category of quite good, but it is not even and not fully sustainable. Citizen participation has been formed in various forms of contribution, but the intensity and consistency differ between individuals and between types of facilities. This condition shows that participation is not a single phenomenon, but is influenced by the preferences, capacity, and perception of benefits felt by citizens. The measurement results show a tendency that financial participation is more dominant than physical participation and participation in decision-making. The majority of residents are

willing to pay maintenance fees, although some still have to be reminded, while involvement in mutual cooperation and environmental deliberations is relatively lower. This pattern indicates that residents are inherently concerned about the sustainability of environmental facilities, but choose the form of participation that is considered most appropriate to their time conditions and abilities. In other words, citizen participation is adaptive, but not completely collective.

In the context of labor participation, mutual cooperation is still running and has become a symbol of citizens' social concern. However, it tends to be situational and reactive. Many residents are newly involved when urgent problems arise, such as drainage blockages during the rainy season. This causes maintenance activities that require continuity to often be less than optimal. Drainage treatments, for example, have been done regularly, but they have not been effective enough to prevent recurring problems. These findings show that Labor participation has not yet run as a continuous maintenance system, but is still dependent on emergency conditions. In contrast, financial participation indicates a higher level of stability. The high percentage of residents who pay their contributions on time contributes directly to maintaining the quality of facilities such as roads, neighborhoods, and security posts. However, the results of the study also revealed that there are still residents who are in arrears or only pay when reminded have the potential to cause inequality and social conflict if not balanced with transparency and strong accountability mechanisms. Thus, although financial participation is relatively good, its sustainability is highly dependent on citizens' trust in fund management

Participation in deliberation or decision-making was the weakest aspect of this study. The low attendance of citizens in deliberative forums suggests that most environmental decisions are made by small, active groups. This condition has an impact on the weak sense of collective representation and ownership, especially for facilities that are not routinely discussed or do not have direct benefits felt by residents, such as green open spaces. As a result, these facilities tend to be neglected and do not have a permanent manager. The results also showed that participation rates differed between facilities, depending on the extent to which the benefits were felt directly and emotionally. Facilities such as security posts and prayer rooms receive relatively high and sustainable participation because they are directly related to the security and religious values of citizens. On the contrary, green open spaces are the facilities with the lowest participation rate because their functions are not clear and have not been integrated into citizens' social activities. These findings confirm that citizen participation is not only influenced by social obligations, but also by the meaning and social function of the facility.

In terms of influencing factors, the final results of the study show that citizen participation is influenced by a combination of awareness factors, time constraints, environmental leadership, management systems, communication, and a sense of belonging to the environment. Citizens who are highly aware and feel part of the community show a more consistent tendency to participate. On the contrary, busy work, lack of information, and residence status as tenants are significant inhibiting factors. The role of environmental stewards emerges as a key factor that can strengthen or weaken participation, depending on the quality of communication and transparency built. Overall, the results of this study show that citizen participation in Wiranda Asri Housing has been at the stage of functional

participation, where residents are willing to be involved mainly in certain aspects of funding and activities, but have not been fully involved in sustainable planning, supervision, and management. This condition has important implications for the sustainability of the management of public facilities and utilities. Without strengthening organizational systems and increasing deliberative participation, the quality of environmental facilities has the potential to decline gradually, especially in facilities that rely on long-term collective work.

### **Discussion of Community Participation Models**

Community participation is an important concept in the management of residential environments because it reflects the involvement of residents in the process of planning, implementing, and evaluating construction activities and maintaining shared facilities. In the study of regional planning and community-based development, participation is not understood as a single involvement, but rather is present in various models that show the depth and quality of community involvement.

One of the most well-known models of participation is the Arnstein Participation Ladder. This model describes participation as a tiered spectrum, ranging from pseudo-participation to full participation. At the lower level, participation is manipulative and informative, where the community is only the object of policy. At the intermediate level, participation is consultative, i.e. the community begins to be heard but does not yet have the power to make decisions. Meanwhile, the highest levels are characterized by partnerships, delegation of power, and citizen control, where communities play an active role and have authority in the management of shared resources. Arnstein's model emphasizes that not all forms of engagement can be called true participation, as the quality of participation is determined by the extent to which society has a real influence on decisions.

Another widely used model is the Cohen and Uphoff participation model, which classifies community participation based on the stages of development activities. In this model, participation is differentiated into participation in decision-making, participation in implementation, participation in the utilization of results, and participation in evaluation. This model emphasizes that participation does not stop at physical involvement alone, but also includes involvement in thought processes and supervision. Through this model, it can be seen that the ideal community participation is the participation that is present comprehensively at each stage, so that the community is not only the implementer, but also the subject of development.

In addition, there is a Pretty participation model that groups participation based on people's motivation and level of independence. This model differentiates participation into passive participation, informative participation, consultative participation, functional participation, interactive participation, and self-directed participation. Functional participation occurs when the community is involved to achieve a certain goal, but the initiative still comes from outside parties or administrators. Interactive and self-paced participation reflects a more mature level of participation, in which people consciously organize themselves, make decisions, and take responsibility for the sustainability of activities. The Pretty model emphasizes the importance of transforming participation from

mere technical involvement to community self-reliance. In the context of residential environmental management, it is also known as the social capital-based participation model, which emphasizes the role of trust, social networks, and shared norms in encouraging citizen involvement. In this model, participation grows not only because of formal rules, but because of strong social relationships and a sense of community between citizens. Mutual cooperation, solidarity, and informal leadership are key factors that maintain the sustainability of participation. This model is relevant to explain why participation is often stronger in activities that have social and emotional significance, such as environmental security and religious activities. The next model is the local institutional-based participatory model, which emphasizes the importance of organizational structures such as RT/RW, citizen groups, or facility management teams. In this model, community participation is facilitated through clear rules, schedules, role-sharing, and accountability mechanisms. Citizen engagement becomes more consistent when supported by an organized system, because citizens understand their roles and responsibilities. This model shows that participation depends not only on individual awareness, but also on the capacity of environmental organizations to manage citizen engagement.

Overall, these various models of community participation show that participation is not a static condition, but rather a dynamic process that can evolve over time. In practice, a single community can demonstrate more than one participation model at the same time, depending on the type of activities and facilities managed. These models provide an analytical framework to understand the position and quality of community participation, as well as the basis for designing more effective and sustainable strategies to increase participation.

## **Conclusion**

Based on the results of the analysis of the level of citizen participation in the maintenance of public facilities and utilities in Wiranda Asri Housing, it can be concluded that the participation of residents is quite good but not even. The most dominant form of participation is in the form of financial contributions and incidental mutual cooperation, while participation in decision-making and supervision is still limited. Facilities that provide direct benefits such as environmental roads, security posts, and prayer rooms tend to receive more attention, while drainage and green open spaces are relatively poorly managed.

Factors that encourage participation include awareness of benefits, sense of ownership, culture of mutual cooperation, and local leadership, while the main inhibiting factors are time constraints, lack of transparency of funds, lack of socialization, and differences in housing ownership status. To increase citizen participation in a sustainable manner, strategies are needed in the form of strengthening communication, transparency in fund management, providing flexible participation schemes, and forming environmental facility management teams. Thus, the sustainability of public facilities in residential environments can be maintained through more organized and inclusive collaboration of residents.

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