



Table of contents

Volume 1351

2024

← [Previous issue](#) [Next issue](#) →

2023 International Conference on Architectural Research and Design (ARDC) in conjunction with CIVPLAN'S International Conference 25/10/2023 - 26/10/2023 Surabaya, Indonesia

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Open all abstracts

Preface

OPEN ACCESS 011001

Preface

View article PDF

OPEN ACCESS 011002

Peer Review Statement

View article PDF

Keynote Papers

OPEN ACCESS 012001

Unlocking urban charm for liveable street: transformative design strategies to boost pedestrian appeal in Asian cities

S Nugroho

View article PDF

Theme I: Resilient and Livable Cities

OPEN ACCESS 012002

Placing concepts of sensory gardens as social nodes in Older Adult's Daycare Centre's design towards a sustainable community: Surabaya

Fardilla Rizqiyah and Mercyella Prasetya

[View article](#) [PDF](#)**OPEN ACCESS**

012003

The image of Gresik Town Square based on participatory design of multicultural society in Gresik

R Kharismawan, G C Dewanda, S Nugroho, A S Mahendra and W Setyawan

[View article](#) [PDF](#)**OPEN ACCESS**

012004

Tourism photography: a form of adaptation to sustain the heritage district of Malioboro, Yogyakarta

Wiyatiningsih, K Oentoro, C O Mandayu and S Hartono

[View article](#) [PDF](#)**OPEN ACCESS**

012005

Metaphorical Architecture of Tanean Lanjhang as a programming concept for Indonesia Islamic Science Park (IISP) – Madura, towards Sustainable Urban Tourism

A Mulia, Wahyu P Ardyansyah, Tiara P Lestari, M Naufal P Fahrurrozi, Fadhil A Nugroho and F Rizqiyah

[View article](#) [PDF](#)**OPEN ACCESS**

012006

The Subjective Quality of City and Its Correlation with Citizen Happiness

MS Barliana, F Rahmanullah, N Nuryanto, R Mardiana and K H Dwidayati

[View article](#) [PDF](#)**Theme II: Resilient Architectural Design and Practice****OPEN ACCESS**

012007

Defining Wellness-Focused Design for Rural Tourism: Study Case of Penanggungan Village

W Sunarya, A Avenzoar and H P Utomo

[View article](#) [PDF](#)**OPEN ACCESS**

012008

Study of space configuration in the Directorate Building of Politeknik Negeri Pontianak using the space syntax analysis approach


D P Sari, F Kurniadi, T Wibowo and C Bayu

[View article](#) [PDF](#)**OPEN ACCESS**

012009

Human-Centered Design: an Implementation of Methods In Designing Kendari Fish Market As An Urban Design Object

A S Mahendra, L M I A Rahman, R Kharismawan, S Nugroho and F Rizqiyah



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012010

Design research experiment for convertibility architecture based on seasonal sport tournament

C G Andini, R A Widyanugraheni, F X T B Samodra and D Kim



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012011

Customization experiment of hybrid music festival with movable architecture approach

R A Widyanugraheni, C G Andini, F X T B Samodra and D Kim

 View article  PDF

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012012

Emphatic architecture: an approach to spatial quality concept in achieving adaptive retail resilience

E N Ustazah, P Setijanti and A Hayati

 View article  PDF

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012013

Sustainable Design Criteria for Batik Cultural Centre in Klampar, Madura

Happy Ratna Sumartinah, Arwani Hasbullah Akbar and Mutia Sulistiastuti

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012014

Retrofits of multi-storey office building facade

Tantri Oktavia, L M F Purwanto and K A Arif

 View article  PDF

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012015

Integration of Green and Blue Space, and Their Potential to Support The Mental Health of Tropical Urban Residents

I Defiana and N Salsabila

 View article  PDF

Theme III: Resilient Housing and Settlement

OPEN ACCESS

012016

Study of the green building implementation: towards net zero energy housing (case study: South Tangerang)

S Tarigan and K A Mannan

 [View article](#)  [PDF](#)

OPEN ACCESS

012017

Relation between renovation and space density of small-type house in a row house pattern

I M S S Y Mawantu, H Iskandaria, C A A Pakpahan and N N Fasya

 [View article](#)  [PDF](#)

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012018

The affect of rusunawa design changes to resident's physical quality satisfaction

A N Ramadhani, P Setijanti and Arina Hayati

 [View article](#)  [PDF](#)

OPEN ACCESS

012019

Spatial Flexibility for Housing in Urban Kampung toward Sustainability

Adinda S P R Utami and P Setijanti

 [View article](#)  [PDF](#)

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012020

The Transformation of Space Function on Boarding Houses in Settlements around Campus during Pandemic

Dewi Septanti, Happy R. Santosa and Vindi Fatma Zahra

 [View article](#)  [PDF](#)

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012021

The resilience level of Kampung Sekretaris as urban village in response to urban development in the surrounding area

M C M P Astuti, M N Luru and A Ramadhani

 [View article](#)  [PDF](#)

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012022

Fluidity in space: defining threshold in dwelling and temporal market for resilient kampung settlement.

A Hayati, S Cahyadini, P N Sakinah, M Sulistiastuti and K S Aisyah

 [View article](#)  [PDF](#)

Theme IV: Theoretical, Historical, and critical perspective of resilient Architecture & urban design

OPEN ACCESS

012023

Investigation of colonial architecture's influence on the resilience and sustainability of the limasan house in Ndalem Ngabean

K M Ariana, R A Tiarawati, F A Hamsjah, R N Radhiyya, D Novianto, N E Nuffida and A E Sumanti

 View article  PDF

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012024

Adaptive restoration of Kali Mas Surabaya: strategy to recall and sustain historical area

Garudea, H A P Pakiding, A A P Widyawati, I N Rojabia, B Soemardiono and P Setijanti

 View article  PDF

OPEN ACCESS

012025

From Traditional to Contemporary: Evaluating Environment Condition and Living Behaviour in Joglo House

G E Xian, A E Sumanti, R T Hidayat and D Novianto

 View article  PDF

OPEN ACCESS

012026

Architecture research in urban heritage resilience: a systematic literature review

A R Walidonna, B Soemardiono and I G N Antaryama

 View article  PDF

Theme V: Resilient Buildings and Technology

OPEN ACCESS

012027

The Efficacy of Horizontal Adjustable Bent Louver Shading for Enhancing Daylighting Performance in Walk-Up Apartment Buildings

A Dinapradipta, E Sudarma, I A Indrawan, J Krisdianto, M F Arifin and A H Hasya

 View article  PDF

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012028

Behavior and comfort during floor usage in gathering activities on Indonesia apartments

C Erwindi, K Kondo and T Asawa

 View article  PDF

OPEN ACCESS

012029

Slope failure lines analysis to determine landslide potential based on standard penetration test method

P A M Agung, M F R Hasan, A P Dwiyoasa, A Susilo, E A Suryo and A Pradiptiya

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Preface

The only certainty is that conditions always change. Change is necessary for life to exist and to be capable of correctly perceiving changes is essential for adapting to new conditions. In an era of rapid environmental change, resilience has become a critical aspect of a sustainable built environment (Architecture and urban design). Resilience is the key of adaptability to maintain continuity. Sustainability itself must not last forever, but one that can easily adapt to future uncertainty.

Architecture and urban design are claimed to play a significant role in the deterioration of environmental quality regarding its resilience and sustainability. High intervention in natural habitats for infrastructure propose, poor energy conservation design, lack of accessibility for a wide range of users, and minimum anticipation of immediate change are the small pieces of many architectural and urban design practices that worsen the environmental quality.

Many attempts have been to reduce this global phenomenon by incorporating government top-down policies and practitioner bottom-up strategies. Since 2015, the United Nations, specifically through SDGs 11 and 13, dedicated itself to promoting a more sustainable and resilient future for the environment. Practitioners and academics also contribute to initiating and implementing environment-oriented approaches, both in practice and research. Nevertheless, the engagement and collaboration among practitioners, stakeholders, academics, and the community still need to enhance in providing more comprehensive and impactful benefits. These steps are important because the built environments are the products of human work and become the systems that organize human life itself, thus its design should be the solution when preparing for the uncertainty of what comes in the future.

International Conference on Architecture Research and Design (AR+DC) is an annual event organized by the Department of Architecture, Faculty of Civil Engineering and Planning, Institut Teknologi Sepuluh Nopember. This international event was first initiated in 2009 and has invited academics, researchers, and professionals from a wide range of expertise and fields. For years, AR+DC topics focused on architecture and its related subjects, such as architecture design, architectural theory, history, and criticism, environmental architecture, housing and settlement, and urban design. In 2023 the conference theme is "Architecture and Urban Resilience: Sustainability through Adaptation." This conference addresses the following themes: Resilient and Liveable Cities, Resilient Architectural Design and Practice, Resilient Housing and Settlement, Theoretical, Historical, and critical perspectives of resilient Architecture and urban design, Resilient Buildings and Technology, and other Topics.

To commemorate Institut Teknologi Sepuluh Nopember (ITS) 63rd Anniversary on November 10th, 2023, this year ARDC 2023 will be held concurrently with the CIVPLAN International Conference (CIC). The CIC, organized by the Faculty of Civil, Planning, and Geo-engineering (CIVPLAN), ITS, focuses on the theme of "**Smart Infrastructure for Sustainable Living.**" This conference also serves as a platform to bring together seminars from various departments under the Faculty of CIVPLAN, namely: Architecture, Civil engineering, Urban and Regional Planning, Environmental Engineering, and Geo-Engineering.

This conference was held for 2 days at DoubleTree by Hilton, Surabaya, Indonesia. The first day was the main conference day, featuring 11 main keynotes from 6 countries and attended by more than 600 participants. The second day hosted a paper session conducted by each department of the Faculty of CIVPLAN, with a total of 400 participants from more than 10 countries. On the second day, the ARDC (Architecture department) was conducted in a hybrid manner, divided into 2 sessions and attended by 100 participants from 5 countries. The first session featured 3 keynote speakers from Indonesia, China,



and South Africa. The second session included a paper session presented by 35 panelists from Indonesia, Japan, and South Korea.

We promote the event through our official website (<https://www.events-arch-its.org/ardc2023>) which more than 11 countries have accessed. We accepted 35 papers that underwent blinded review and were presented on the second day of the conference, consisting of 4 sessions divided based on the conference themes. Each presenter had 10 minutes to present their papers, followed by a Q&A or discussion session.

We would like to express our highest appreciation to all organizers for their hard work in preparing, managing, and organizing this successful event. We also extend our gratitude to keynotes, authors, reviewers, and participants who contributed to the success of AR+DC 2023.

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3. Number of submissions received: 40
4. Number of submissions sent for review: 38
5. Number of submissions accepted: 29
6. Acceptance Rate (Submissions Accepted / Submissions Received × 100): 72,5 %
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Name: Rabbani Kharismawan
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The resilience level of Kampung Sekretaris as urban village in response to urban development in the surrounding area

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The resilience level of Kampung Sekretaris as urban village in response to urban development in the surrounding area

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Abstract. Kampung Sekretaris is an urban village in a rapidly developing urban area. This urban development has transformed the area around Kampung Sekretaris into a commercial zone. Its central location surrounded by commercial area could potentially threaten the existence of the urban village due to its strategic significance. Like many settlements, this urban village faces common issues such as flooding, slums, and inadequate sanitation. Given these challenges, one might expect Kampung Sekretaris to struggle for survival. However, remarkably, Kampung Sekretaris not only persists but also features in the government's planning program. The aim of this study is to assess the level of resilience displayed by Kampung Sekretaris in response to urban development. The research method employed is quantitative descriptive analysis. Analytical techniques include scoring, which involves the use of Resilience Radar Index indicators, and quantitative descriptive analysis to evaluate Kampung Sekretaris's resilience to urban development over time. The results indicate that Kampung Sekretaris exhibits a very high level of resilience. The following factors explain the relationship between this result and urban development: (1) Community capacity affects building functions; (2) Social capital influences land use; (3) The interconnectedness is evident through the kampung's land use as a residential area; (4) The restoration of Kali Sekretaris river serves as disaster preparedness, with no more buildings along its banks; (5) A network of interconnected roads supports disaster evacuation; (6) Arterial roads facilitate the growth of trade; and (7) Changes in the functions of buildings reflect the community's adaptability in seeking livelihood sources.

1. Introduction

According to [1], urban village is one of the forerunners of the formation of a city and as a typical service for cities with high density levels that are formed without going through planning. The existence of an urban village is important because it contains a variety of unique processes carried out by its inhabitants, and is able to maintain its morphology, function, and values [2]. Morphology itself is an approach to understanding the development of a city during its development process through urban spatial patterns. Morphology consists of land use, road networks, and building functions [3-4]. According to [5], urban development is defined as a change in the urban area's life and livelihoods aspects. An urban development forms a characteristic of the urban's physical space, known as the morphology of the area.

Urban development cannot be separated from the existence of the urban villages within it. An urban village is a group of houses within a city that are classified as protected areas. It no longer has fields, but is covered with high-intensity buildings. Despite the fact, that urban development has pushed the existence of urban villages, some of them have proven to be resilient [6-9].



Urban villages have the same problems as settlements in general, namely population density, building density, narrow circulation, inadequate public facilities and infrastructure, health problems, and poverty. This will become a threat to the survival of urban villages [10]. Resilience itself states that, one of the reasons for surviving is the interaction between urban space and urban development [11].

Resilience is the ability to respond to change or disturbance without changing its original condition. To measure the resilience level using a resilience radar index. Resilience radar is a tool to assess the level of resilience of a particular community. It consists of ten aspects, which include community capacity, sosial capital, inclusiveness, connectedness, disaster preparedness, shelter safety, livelihoods, natural resource management, health, water and sanitation [12-13].

One of the urban villages in the city of Jakarta is the Kampung Sekretaris. This urban village, which has existed since before the reform era, is now one of the settlements with the worst sanitation in the capital city. Another problem found in Kampung Sekretaris is flooding, which occur due to the area's low elevation [14]. In addition, because of its location next to the Kali Sekretaris, slums cannot be avoided [15]. The complexity of the problems should make it difficult for this area to resilient. Not only that, the existence of this kampung has the potential to disappear, because of its strategic location in urban areas, which encourages residents to sell and leave the area [10]. However, Kampung Sekretaris still exists today and is even part of the government's urban village planning program, which is based on the decision of the Governor of the Province of DKI Jakarta no. 878 of 2018 [16]. Referring to these problems, a research question was generated, what is the resilience level of Kampung Sekretaris in response to urban development in the surrounding area?

2. Methods

Kampung Sekretaris is located in RT 015 RW 07 Tanjung Duren Utara, Grogol Petamburan District, West Jakarta, with the north side bordered by RT 012 RW 07 Tanjung Duren Utara, the east side bordered by Tanjung Duren Selatan, the south side bordered by Kebon Jeruk, and the west side bordered by Duri Kepa.

A lot of study about community resilience has been done before [17-20]. However, no study has been conducted on the resilience level of urban villages in urban development, specifically Kampung Sekretaris. The variables and indicators of reused in this study is shown in table below (Table 1).

Table 1. Variable and Indicator.

Aspect	Variable	Indicator
Resilience based on <i>Resilience Radar Index</i> [13, 17-20]	Community Capacity	Leadership
		Community Skills
	Social Capital	Social Attachment
		Community Participation
		Collective Action
		Aspiration
	Inclusiveness	General Inclusiveness
		Access for Persons with Disabilities
		Gender Equality
	Connectedness	Support from External Parties
Disaster Preparedness	Community Preparedness	
	Household Preparedness	
Shelter Safety	Type of Building Material	
	Building Safety Effort	
Livelihoods	Livelihood Dependence on Natural Resources	

Aspect	Variable	Indicator	
Resilience in Urban Development [3-4]		Income Earners Index	
		Savings	
		Food Security	
		Natural Resource Management	Household-level Natural Resource Management
			Community-level Natural Resource Management
		Health	Health Knowledge
			Health Practice
			Availability of Health Service Facilities
			Use of Health Service Facilities
		Water and Sanitation	Availability of Drinking Water Facilities
			Availability of Sanitation Facilities
		Morphology	Land Use
			Road Network
	Building Functions		

The approach used in this study is a quantitative approach and described descriptively. The research design is a survey method, which is a questionnaire. The respondents of the questionnaire are the head of the household, a total of 164 head of households.

Analytical technique uses quantitative descriptive analysis and scoring including Resilience Radar Index indicators. The quantitative descriptive is used to analyze the resilience of Kampung Sekretaris in urban development by conducting diachronic readings, which tracing historical traces related to urban development around the village. Whereas, scoring method in the range of 0.00 – 1.00. The average values are then interpreted into the following resilience levels (Table 2).

Table 2. Resilience Radar Index.

Value	Interpretation
0.81 – 1.00	Very High
0.61 – 0.80	High
0.41 – 0.60	Moderate
0.21 – 0.40	Low
0.00 – 0.20	Very Low

3. Results and Discussions

3.1. Resilience based on the resilience radar index

3.1.1. Community capacity. Community capacity is measured based on community leadership and skills. Leadership indicators can be seen from the existence of communication between the community and leaders (X1.1). Meanwhile, indicators of community skills can be seen from whether or not there is an opportunity to develop skills (X1.2).

Table 3. Community Capacity Analysis.

Variable	Indicators	Value	Interpretation
Community Capacity (X1)	Leadership	0.98	Very High
	Community Skills	0.97	Very High
	Average Value	0.97	Very High

Based on the results, Kampung Sekretaris has a very high community capacity value, namely with a value of 0.97 (Table 3). The very high leadership value indicates that there is communication between the community and the leader, so that it can stir the community. Meanwhile, the very high value of community skills indicates that there is an opportunity for the community to develop their skills, one of which is financial literacy as a form of CSR in order to provide knowledge related to family financial planning.

3.1.2. Social capital. Social capital is measured based on social attachment (X2.1), community participation in social life (X2.2), collective action (X2.3), and aspiration (X2.4).

Table 4. Social Capital Analysis.

Variable	Indicators	Value	Interpretation
Social Capital (X2)	Social Attachment	0.93	Very High
	Community Participation	0.98	Very High
	Collective Action	0.96	Very High
	Aspiration	0.98	Very High
	Average Value	0.97	Very High

Based on the results, Kampung Sekretaris has a very high social capital value, namely 0.97 (Table 4). The very high social attachment indicates a sense of shared destiny among residents, thus fostering a sense of being part of the community. Meanwhile, the very high community participation indicates participation in social life. Meanwhile, collective action is very high, showing that people can appreciate differences by living side by side. Meanwhile, the very high aspirations indicate that there is hope for the Kampung Sekretaris. This is in accordance with [21], that the urban village community has the nature of loyalty, a willingness to share burdens, to strong solidarity, so that social ties are established that are maintained in the life of the urban village community.

3.1.3. Inclusiveness. Inclusiveness is measured based on the general inclusiveness which can be seen by whether or not community are treating everyone fairly regardless of their background (X3.1), access for persons with disabilities which can be seen by whether or not persons with disabilities have access to community services (X3.2), gender equality are measured by the roles between men and women in social life, both at community meetings (X3.3) and in decision-making related to community affairs (X3.4).

Table 5. Inclusiveness Analysis.

Variable	Indicators	Value	Interpretation
Inclusiveness (X3)	General Inclusiveness	0.96	Very High
	Access for Persons with Disabilities	0.85	Very High
	Gender Equality	0.80	High
	Average Value	0.87	Very High

Based on the results, Kampung Sekretaris has very high inclusiveness, with a value of 0.87 (Table 5). General inclusiveness is very high, indicating that the people of Kampung Sekretaris maintain communication by treating each other fairly regardless of their background. Meanwhile, access for persons with disabilities which is very high indicates efforts to mobilize all elements of society, including those with special needs, to obtain equality and treatment with dignity. Meanwhile, the indicator with a high score, gender equality, shows that both men and women have a role in social life.

This is in line with [22], that the urban village community is an inclusive society, namely a society that is open and friendly because every member of the community without exception respects and embraces each difference.

3.1.4. Connectedness. Connectedness is measured based on whether or not there is support from external parties in overcoming problems in their environment (X4.1).

Table 6. Connectedness Analysis.

Variable	Indicators	Value	Interpretation
Connectedness (X4)	Support from External Parties	0.86	Very High
	Average Value	0.86	Very High

Based on the results, Kampung Sekretaris has a very high connectedness, with a value of 0.86 (Table 6). The very high value of support from external parties indicates a strong relationship between Kampung Sekretaris and external parties, the government and public officials.

3.1.5. Disaster preparedness. Disaster preparedness is measured based on community preparedness and household preparedness. Indicators of community preparedness are measured by whether or not there is provision of information when a disaster occurs (X5.1), as well as whether there are efforts to reduce disaster risk (X5.2). Meanwhile, household preparedness indicators are measured by whether or not there is a disaster anticipation plan in the household (X5.3), (X5.4), and whether or not they have participated in a disaster simulation (X5.5).

Table 7. Disaster Preparedness Analysis.

Variable	Indicators	Value	Interpretation
Disaster Preparedness (X5)	Community Preparedness	0.91	Very High
	Household Preparedness	0.81	Very High
Average Value		0.86	Very High



Figure 1. Water Pump of Kali Sekretaris.

Based on the results, Kampung Sekretaris has a very high disaster preparedness, with a value of 0.86 (Table 7). The very high value of community preparedness shows that the people of Kampung Sekretaris are ready and alert in dealing with disasters, especially floods, because of their location on the banks of the river. The community received warning information if a flood is imminent and information on what to do when a flood occurs. In addition, having a water pump is a form of effort to reduce the risk of flooding, preventing the runoff from entering residential areas (Figure 1).

3.1.6. Shelter safety. Shelter safety is measured based on the type of building material (X6.1) and effort in building safety, which can be seen from whether or not there is an effort to raise the floor of the house (X6.2).

Table 8. Shelter Safety Analysis.

Variable	Indicators	Value	Interpretation
Shelter Safety (X6)	Type of Building Material	0.89	Very High
	Building Safety Effort	0.81	Very High
	Average Value	0.85	Very High



Figure 2. Buildings Condition in Kampung Sekretaris.

Based on the results, building safety is very high, with a value of 0.85 (Table 8). The very high value of the type of building material indicates that the people of Kampung Sekretaris have realized the importance of choosing the right type of building material for building safety. While the building safety measures are very high, it shows that the community has recognized the characteristics of their area which are prone to flooding, so this experience has made them raise the floors of their houses (Figure 2).

3.1.7. Livelihoods. Livelihoods is measured based on livelihood dependence on natural resources (X7.1), income earners index (X7.2), savings (X7.3), and food security (X7.4).

Table 9. Livelihoods Analysis.

Variable	Indicators	Value	Interpretation
Livelihoods (X7)	Livelihood Dependence on Natural Resources	0.91	Very High
	Income Earners Index	0.74	High
	Savings	0.91	Very High
	Food Security	0.95	Very High
	Average Value	0.88	Very High

Based on the results, livelihoods is very high, with a value of 0.88 (Table 9). The very high value of livelihood dependence on natural resources indicates that the community is not dependent on natural resources. This is because the source of livelihood is non-agricultural, so it does not affect with the natural conditions. The very high savings ownership indicates that the community has savings as an emergency fund in the face of unexpected conditions in the future. The very high food security shows that people can meet the food needs of their family members.

Meanwhile, an indicator with a high value, the income earners index, indicates that the number of earning members with the number of family members tends to be balanced. So that the burden on the family is relatively balanced.

3.1.8. Natural resource management. Natural resource management is measured based on household-level natural resource management and community-level natural resource management. Household-level natural resource management is measured by the source of energy used for cooking (X8.1), and the management of household solid waste (X8.2). Meanwhile community-level natural resource management is measured by the existence of a community that concerned about the environment (X8.3).

Table 10. Natural Resource Management Analysis.

Variable	Indicators	Value	Interpretation
Natural Resource Management (X8)	Household-level Natural Resource Management	0.85	Very High
	Community-level Natural Resource Management	0.82	Very High
	Average Value	0.84	Very High

Based on the results, natural resource management is very high, with the value of 0.84 (Table 10). The management of household-level natural resources is very high, indicating that the household has maintained survival. This can be seen from the use of gas as a source for cooking. Besides that, households already manage household solid waste quite well by disposing it in the trash. While the value of natural resource management in the community-level is very high, indicates that there is a community that concerned with the environment that collaborates with the local community.

3.1.9. Health. Health is measured based on health knowledge (X9.1), health practice (X9.2), availability of health service facilities (X9.3), and use of health service facilities (X9.4).

Table 11. Health Analysis.

Variable	Indicators	Value	Interpretation
Health (X9)	Health Knowledge	0.94	Very High
	Health Practice	0.69	High
	Availability of Health Service Facilities	0.98	Very High
	Use of Health Service Facilities	0.59	Moderate
Average Value		0.80	High

Based on the results of, the health value is high, 0.80 (Table 11). The very high health knowledge indicates that the community has knowledge regarding dengue fever, including the causes, signs and symptoms, of dengue fever. Meanwhile, the availability of health service facilities is very high, indicating that the community is aware of access to health service facilities around their residence.

Meanwhile, indicators with high scores, namely health practices, show that the community is able to take first aid measures in the event of a disaster, considering that this area is prone to flooding.

As for other indicators, the use of health service facilities with a moderate value indicates that people only use health service facilities during emergencies and if there is a prolonged illness, as well as during childbirth. This is because people tend to prefer traditional medicine.

3.1.10. Water and sanitation. Water and sanitation are measured based on availability of drinking water facilities and sanitation facilities. The availability of drinking water facilities can be seen from the main source of drinking water (X10.1), as well as the availability of drinking water throughout the year (X10.2). Meanwhile, the the availability of sanitation facilities can be seen from the availability of household latrine (X10.3).

Table 12. Water and Sanitation Analysis.

Variable	Indicators	Value	Interpretation
Water and Sanitation (X10)	Availability of Drinking Water Facilities	0.92	Very High
	Availability of Sanitation Facilities	0.26	Low
Average Value		0.59	Moderate

Based on the results, water and sanitation is moderate, with the value 0.59 (Table 12). The availability of drinking water facilities is very high indicates that the community's need for drinking water has been met. Meanwhile, another indicator, the availability of sanitation facilities, with a low score indicates that most households do not have latrines in their homes.

The resilience level of Kampung Sekretaris measured based on 10 (ten) variables of the Resilience Radar Index (Table 13, Figure 3). Based on the results, the resilience level of Kampung Sekretaris based on resilience radar index is at a very high level, with a score of 0.85. This is measured basen on 10 (ten) variables that indicates moderate, high, and very high level.

Table 13. Resilience Level of Kampung Sekretaris.

Variable	Value	Interpretation
Community Capacity	0.97	Very High
Social Capital	0.97	Very High
Inclusiveness	0.87	Very High
Connectedness	0.86	Very High
Disaster Preparedness	0.86	Very High
Shelter Safety	0.85	Very High
Livelihoods	0.88	Very High
Natural Resources Management	0.84	Very High
Health	0.80	High
Water and Sanitation	0.59	Moderate
Average Score	0.85	Very High

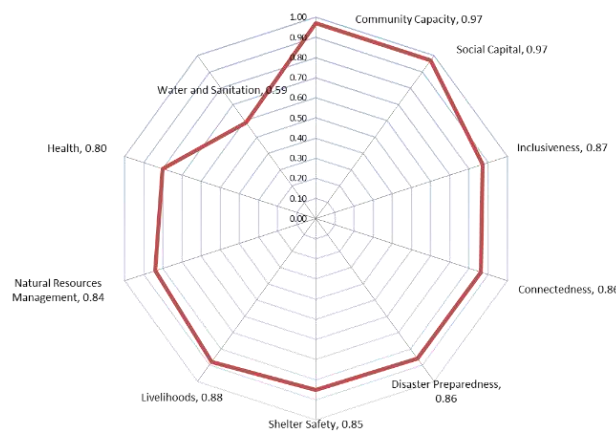

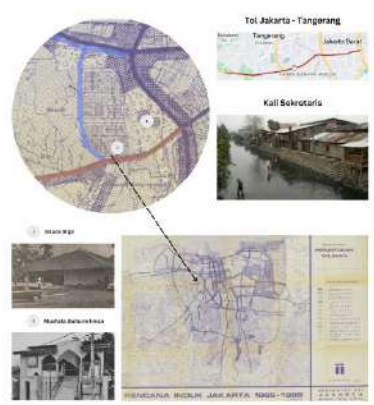





Figure 3. Resilience Radar of Kampung Sekretaris.

3.2. Resilience on urban development

The resilience on urban development includes the morphology of the area. In identifying the morphology of an area, it can be seen based on land use, road network and building functions (Table 14).

Table 14. Analysis of Urban Development in Kampung Sekretaris.

Maps	Morphology		
	Land Use	Road Network	Buiding Functions
<p>1 1945</p>  <p>Source: Leiden University Libraries Digital Collection</p>	<ul style="list-style-type: none"> Initially, this area was a swamp where it was known that there were plantations belonging to the indigenous people, rice fields and Chinese ethnic burials. In the following years, in 1967 a private university was established as one of the city-scale facilities, Universitas Kristen Krida Wacana (Ukrida). 	<ul style="list-style-type: none"> The road network in this period has not formed in order yet. Besides that, there was no road classification to indicates the function of the road. 	<ul style="list-style-type: none"> The existing building in this period can only be identified as scattered buildings.
<p>2 1973-1984</p> 	<ul style="list-style-type: none"> Based on the 1965-1985 Jakarta Master Plan, Kampung Sekretaris area was a residential area. The year 1973 became the starting point for the existence of the Kampung Sekretaris, which was also accompanied by the construction of the West Flood Canal, which was based on the Jakarta Flood Control Master Plan, one of which was the Kali Sekretaris. 	<ul style="list-style-type: none"> A more regular road network has begun to form. This is marked by the existence of the Jakarta - Tangerang Toll Road which began operating in 1984. The existence of the toll road indicates the starting point of development, which was originally a swamp to become a developing area. 	<ul style="list-style-type: none"> The buildings in this period were the first buildings to be built. One of them is the Slipi Palace and the Baiturrohman Mosque.
<p>3 1993-2014</p>	<ul style="list-style-type: none"> Residential areas began to develop into densely populated residential areas. This was triggered by the establishment of a 	<ul style="list-style-type: none"> The development of the area forms a road hierarchy in the village. Several local roads and main alleys, such as Arjuna 	<ul style="list-style-type: none"> There was still many houses on the banks of the Kali Sekretaris. There was only one function of the buildings, which as a

Maps	Morphology		
	Land Use	Road Network	Buiding Functions
	<p>tertiary institution in West Jakarta, namely Esa Unggul University in 1993. In addition, with the establishment of Taman Anggrek Mall in 1996 and followed by Central Park mall in 2009 as a shopping center which made the area around the village grows.</p>	<p>Utara, Tanjung Duren Raya and Gang Sekretaris, became the boundary between the village area and the outside area.</p>	<p>residence or place to live.</p>
<p>4 2015-2023</p>  	<ul style="list-style-type: none"> • In 2015, there was a restoration program on the Kali Sekretaris which resulted in the eviction of houses on the banks of the river, so that now there are no more houses on the banks of the Kali Sekretaris. • In 2018, the Government, in DKI Jakarta Governor Decree No. 878 of 2018, determined Kampung Sekretaris as one of the priority villages. This indicates that this urban village is maintained as a residential area. • In 2023, Kampung Sekretaris has become a densely populated area. This can be seen from the land use map, where settlements are the dominant type of land use in Kampung Sekretaris. 	<ul style="list-style-type: none"> • The spatial structure of the area around the urban village has developed, namely with the establishment of the Tanjung Duren area as a tertiary activity center, namely the urban area as a center for trade and services on a city scale. 	<ul style="list-style-type: none"> • The function of buildings in Kampung Sekretaris has many changes in function, namely in buildings that were originally only used as residences, now they are also used as business or trading activities. Residents uses the ground floor of the house for trading activities, while living activities are carried out on the 2nd floor.

The relationship between the results of the level of resilience based on the resilience radar index and urban development are as follows:

- The very high community capacity value, triggers changes in the function of buildings that were originally residential now as well as business activities;
- The very high social capital value has an influence on land use. This is in line with research by [23] that in relation to social capital, the community has an influence on land use, where people who have low social attachment, with high trust in investors, will find it easier to sell their land.
- The very high connectedness is shown by the establishment of Kampung Sekretaris as one of the urban villages in the Governor of DKI Jakarta Decree No. 878 of 2018. This indicates an effort to maintain the village as a settlement.
- There is restoration of the river as a form of disaster preparedness, triggering a change in land use, where there are no more buildings on the banks of the river. This condition is in line with [24], that regulated the distance between a river and a building that must be met as a condition for living in an area around river, which is at least 3 (three) meters.
- There is a hierarchy of interconnected roads, which made it easier during the evacuation process.

- The very high source of livelihood, because most people have a livelihood as a traders or employees. This condition is influenced by the condition of the road network there, namely the secondary arteries, where along with the development of the city, the trade and services sector are growing very fast along these roads.
- The urban development triggers changes in the function of buildings, which now do not only function as residences, but also become business activities or trade as a source of livelihood. This condition is in line with [11] that people use their house buildings for business activities as a form of adaptation to developments that occur in the surrounding area.

Kampung Sekretaris has a strong defense character due to their community ability to adapt, their social capital that makes them stay and retain their land, their connections to the government, which provide them with support to maintain their village, and also their awareness of their settlement's potential for flooding, so they make the effort to prepare for the flooding and keep their house building safe.

The potential of the surrounding environment that supports the community's life can be seen as: there is an opportunity to develop their skills, such as financial literacy as a form of CSR in order to provide family financial knowledge; there is support from the government and other external parties in overcoming their problems; there are interconnected roads, which made it easier during the flooding evacuation process; and also the commercial sector is expanding quickly along these roads, which provides a source of livelihood for the community.

4. Conclusion

The resilience level of Kampung Sekretaris based on the resilience radar index is very high with a value of 0.85, which is measured based on 10 (ten) variables that is moderate, high, and very high. The moderate value is on the water and sanitation variable. While, high value is on the health variable. Meanwhile, the very high value is found in community capacity, social capital, inclusiveness, connectedness, disaster preparedness, shelter safety, livelihoods, and natural resource management.

The results of the study show that based on the level of resilience of Kampung Sekretaris, it can be seen physically by looking at its relationship with urban development aspects. The relationship between the results of the level of resilience based on the resilience radar index and aspects of urban development are as follows: (1) Very high community capacity triggers changes in the function of buildings that were originally residential now as well as business activities; 2) Very high social capital has an influence on land use, where people have high social attachment so they are reluctant to sell their land; 3) Very high connectedness is shown by the designation of village land as a residential area; 4) There is restoration of the river as a form of disaster preparedness, triggering a change in land use, where there are no more buildings on the banks of the river; 5) There is a hierarchy of interconnected roads, making it easier during the disaster evacuation process; 6) Arterial road sections that trigger the growth of the trade and service sector; and 7) Changes in the function of buildings in obtaining a source of livelihood as a form of community adaptation.

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