

# Transformation of Ecological Citizenship Based on Green Open Space: Civic Education, Social Construction, and Citizen Participation in the Management of Bandung City Green Open Space Parks

Julian Mauludi Fadhillah<sup>1</sup>, Dasim Budimansyah<sup>2</sup>, Leni Anggraeni<sup>3</sup>

<sup>1,2,3</sup>Program Studi Pendidikan Pancasila dan Kewarganegaraan, Fakultas Pendidikan Ilmu Pengetahuan Sosial, Universitas Pendidikan Indonesia, Bandung, Indonesia

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## ABSTRACT

Urban ecological crises demand a citizenship approach that goes beyond normative compliance and emphasizes citizens' ecological responsibility in public spaces. In Bandung City, the achievement of green open space (GOS) in 2020 reached only 12.25% of the total city area, far below the minimum requirement of 30%. This issue is not only structural but also cultural, as reflected in low citizen participation and the dominant perception of parks merely as recreational spaces. This article analyzes how Bandung City residents construct the functions of GOS parks and the role of Civic Education (PKn) in fostering ecological citizenship through citizen participation. The research employs a qualitative phenomenological approach, using field observation, in-depth interviews, and policy documentation. Data analysis was conducted through reduction, display, and verification. The research results indicate that citizens' social construction of GOS remains oriented toward social-recreational purposes and has not yet been fully internalized as an ecological obligation. The novelty of this research lies in conceptualizing GOS as a civic learning space that connects the social construction of public space with ecological citizenship within a Civic Education perspective. These findings strengthen the argument that strengthening Civic Education based on local GOS issues contributes significantly to the sustainability of city parks.

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## Corresponding Author:

Julian Mauludi Fadhillah

Program Studi Pendidikan Pancasila dan Kewarganegaraan, Fakultas Pendidikan Ilmu Pengetahuan Sosial, Universitas Pendidikan Indonesia

Email: [dionaja001.da@upi.edu](mailto:dionaja001.da@upi.edu)

## 1. INTRODUCTION

Contemporary urban development presents a paradox between urban physical growth and ecological sustainability. On the one hand, the city serves as a center for economic, social, and cultural activities; on the other hand, massive urban expansion puts pressure on the environment's carrying capacity. Various international studies emphasize

that green open space (GOS) plays a strategic role in maintaining air quality, reducing the urban heat island effect, improving citizens' physical and mental health, and strengthening social cohesion [1] - [3]. In addition to its physical functions, GOS acts as the lungs of the city, mitigating the impacts of global climate change at the micro level [4].

Theoretical studies provide two complementary conceptual pathways to explain this relationship. First, Social Cognitive Theory positions self-efficacy as a central construct arising from the triadic interaction of personal, behavioral, and environmental factors; Bandura's four major sources of self-efficacy mastery experiences, vicarious experiences, verbal persuasion, and affective states offer an empirical framework for understanding how classroom environments might facilitate or hinder self-belief formation [2]. Second, Self-Determination Theory emphasizes that fulfillment of the basic psychological needs for autonomy, competence, and relatedness is a prerequisite for intrinsic motivation and feelings of competence; autonomy-supportive learning climates have consistently been found to enhance students' sense of competence and engagement [6]. Integrating these two perspectives enables the formulation of a strong theoretical hypothesis: learning climates that provide room for student autonomy not only foster intrinsic motivation, but also directly and indirectly build self-efficacy by offering meaningful mastery experiences, supportive verbal persuasion, and conducive affective conditions [7].

Nevertheless, the ecological and social benefits of GOS are significantly determined by how the space is managed and perceived by citizens. In the Global South context, GOS challenges are increasingly complex due to land limitations, weak enforcement of spatial planning policies, and low public participation [5], [6]. In Indonesia, GOS issues are often reduced to technical urban planning problems, whereas the social and citizenship dimensions are equally vital. A weak sense of belonging among citizens toward public assets often leads to the degradation of GOS functions, despite continuous physical development.

Bandung City serves as a clear example of these problems. As of 2020, Bandung's GOS coverage reached only about 12.25% of the total city area, far below the minimum 30% requirement mandated by Law Number 26 of 2007 and reaffirmed in Bandung City Regional Regulation Number 5 of 2022. Previous studies in Indonesia have highlighted GOS from the perspectives of spatial planning, urban aesthetics, and recreational functions [7], [8]. While these studies contribute significantly to mapping the physical conditions and policies of GOS, they are relatively limited in explaining how citizens, as civic subjects, perceive and participate in the management of green public spaces.

In fact, various contemporary research emphasizes that urban environmental sustainability cannot be separated from the active involvement of citizens and the meaning-making they construct in public spaces [9], [10]. In the realm of education and citizenship, the concept of environmental citizenship or ecological citizenship has emerged as a response to the global environmental crisis. Dobson [11] asserts that ecological citizenship demands a shift from rights-based citizenship to citizenship grounded in ecological obligations that transcend space and generations.

Research by Hadjichambis et al. [12] further developed a conceptual framework for environmental citizenship that emphasizes integrating knowledge, values, skills, and citizen actions into daily life. However, most research on ecological citizenship still focuses on

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formal education contexts or macro policies, such as school curricula and national environmental policies [13], [14].

On the other hand, studies on public space indicate that city parks and GOS are essential arenas for informal social and civic learning. As explained in Low et al. [15] and Hou [16], public space allows for the negotiation of values, identity, and collective responsibility. Based on the social construction theory in Berger and Luckmann [17], the meaning of public space is formed through the processes of externalization of social practices, objectivation of norms, and internalization of values by citizens. Thus, GOS parks cannot be understood merely as ecological infrastructure, but rather as a continuously constructed social reality.

Therefore, the novelty of this research lies in integrating a phenomenological approach, social construction theory, and ecological citizenship within the urban GOS context, positioning city parks as both public spaces and civic–pedagogical spaces. This research does not merely capture physical realities but delves into the depth of civic meaning behind the management of city parks.

## **2. METHOD**

This research employs a qualitative approach with an interpretative phenomenological analysis (IPA) design. This approach was selected because the research objective is to understand in depth how the citizens of Bandung experience, perceive, and reflect on their civic experiences in the context of green open space (GOS) park management. Interpretative phenomenology allows researchers to examine the subjective meanings of citizens' social experiences while interpreting those meanings within the theoretical frameworks of Civic Education, social construction, and ecological citizenship [18].

Epistemologically, this study is grounded in the constructivist paradigm. Within this paradigm, ecological citizenship is not understood as a given set of norms but rather as a social practice continuously negotiated in public spaces, particularly in GOS parks. The research was conducted in three GOS parks in Bandung: Tegalega Park, Lansia Park, and Maluku Park. The research subjects included park users, managers, government officials, and expert lecturers, selected using purposive sampling and snowball sampling techniques [19].

Data analysis was performed simultaneously, following the interactive analysis model described by Miles et al. [20]. The analysis stages involved open coding to identify units of meaning, axial coding to group thematic categories, and selective coding to construct analytical propositions. In the interpretation stage, empirical findings were read dialectically with social construction theory [17], the concept of ecological citizenship [11], and the framework of Civic Education in Indonesia.

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### 3. RESULTS AND DISCUSSION

#### 3.1 Result

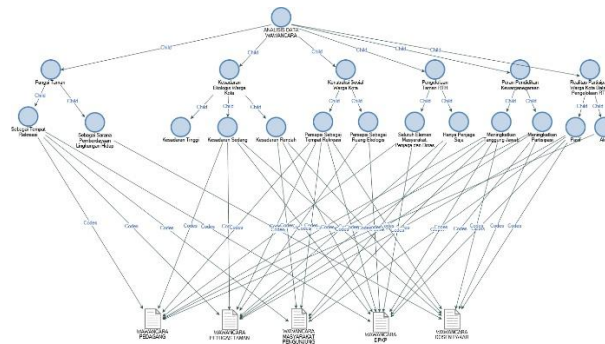


Figure 1. Interview Data Coding Display Results Using NVivo 12

Figure 1 presents a qualitative data analysis map coding network that illustrates how interview and observation data were analyzed to understand citizens' perceptions and participation regarding urban green open spaces. At the top, the central node represents Data Analysis (Interview and Observation), which serves as the main source of empirical data. From this central node, the data are categorized into several main themes (parent codes) that reflect the study's key analytical dimensions.

One major theme is "Park Functions", which is further broken down into subthemes such as parks as public spaces, facilities for social interaction, and spaces for leisure and recreation. This shows how respondents perceive RTH as multifunctional areas that support daily urban life. Another theme focuses on Emotional Conditions, including feelings of happiness, calmness, and comfort experienced by visitors when using the parks. This indicates that RTH is not only valued for its physical function but also for its psychological and emotional benefits.

The image also highlights Social Interaction in Urban Parks, including subcategories such as meeting others, interacting with diverse social groups, and strengthening community bonds. These codes emphasize RTH's role in fostering social cohesion. In addition, there is a theme related to "Environmental Awareness", which captures perceptions of ecological functions, such as greenery, shade, air quality improvement, and environmental aesthetics. This theme connects park usage with growing ecological consciousness among citizens.

Another important theme is Forms of Participation, which includes maintaining cleanliness, following park rules, participating in collective activities, and informal supervision of park spaces. This reflects different levels and types of civic participation associated with RTH use. At the bottom of the diagram, several document icons represent data sources, such as interviews with traders, park visitors, local residents, community members, and park managers. The numerous connecting lines indicate that each data source contributes to multiple codes, suggesting an open, axial coding process in which a single statement can be linked to several analytical categories.

Overall, the image clearly depicts a systematic qualitative analysis framework, demonstrating how raw data from various informants were coded, categorized, and

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connected to explain the social construction of urban green space functions and citizen participation within the context of ecological citizenship.

### **Social Construction of Green Open Space Functional Meaning**

For traders (AD, US, IN), the park serves as a place to earn a living as well as a collective asset whose order must be maintained. However, the social construction among visitors remains diverse; RS views it as a space for practicing social responsibility, while FH and ES tend to see it merely as a personal space for relaxation. This disparity in awareness poses a challenge for park rangers (SB, CA, PW), who perceive the park as a space for character education but frequently find it damaged by citizens' egocentric behavior.

Institutionally, the Department of Housing and Public Spaces (DPKP) constructs the park as vital green infrastructure, the 'lungs of the city,' that is multifunctional in both economic and aesthetic terms. Experts assess that public perception, which remains dominated by recreational uses, is heavily influenced by age and social class. Therefore, community-oriented government policies are essential to transforming parks into inclusive collective spaces and enhancing citizens' sense of belonging.

### **Ecological Awareness of Citizens as Park Users**

For traders (AD, US, IN), ecological awareness emerges pragmatically because a clean environment supports their business continuity; thus, they maintain a sense of responsibility for cleanliness despite their informal status. In contrast, awareness among visitors remains contradictory; RS began to care after receiving education from park officers, while FH and ES remain passive, arguing that park maintenance is entirely the government's duty under the pretext of having paid taxes.

On the other hand, park officers bear a high moral responsibility but frequently experience exhaustion from dealing with the impact of citizens' indifference, which results in damaged facilities. Experts assess that this is caused by a weak public understanding of the relationship between park quality and their own quality of life. Therefore, the DPKP emphasizes the importance of internalizing 'ecological citizenship' values through sustainable education so that the community no longer views the park merely as a recreational site, but as a part of their identity and collective responsibility.

### **Management of Green Open Space (GOS) Parks and the Reality of Participation**

Traders (AD, US, IN) assess that the current government is overly authoritarian and hope for a dialogue on legal MSME zones. At the same time, visitor responses are divided between the passive attitude of FH and ES, who feel satisfied with the government's performance, and RS's hope for a more educational approach. Park officers and experts agree that the management model should be more collaborative and community-based, fostering a sense of ownership among citizens. In line with this, the DPKP has begun efforts to position citizens as strategic partners through participatory education programs to shift the management paradigm from one-way to two-way.

However, the current level of actual participation remains low to medium and tends to be ceremonial. Although AD has been involved in clean-up actions, the US and IN feel

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hindered by their informal status, while visitors such as FH and ES are not interested in getting involved, as they consider it entirely the government's responsibility. Experts and the DPKP note that only RS shows an interest in routine collaboration, indicating that active participation has not yet become a culture among city residents and remains limited to individuals who feel they have a direct interest.

### **The Role of Civic Education in Developing Ecological Citizenship**

Traders suggest that Civic Education should be made more applicable, for example, by linking civic values to communal work (*gotong royong*) and field-based education in the parks. Visitors desire Civic Education presented through relaxed community activities, such as reading corners or creative park-based education that is enjoyable and easy to understand. Park rangers assess that Civic Education must begin at an early age and be implemented interactively, for instance, through cleanliness workshops or family-oriented park activities. Expert lecturers emphasize the importance of Civic Education in forming critical awareness among citizens. If properly understood, it can transform passive citizens into active participants in environmental conservation. Finally, the DPKP views Civic Education as a vital instrument for fostering a sense of responsibility and ecological ethics. If implemented with the right approach, Civic Education can strengthen collective ownership of Green Open Spaces.

## **3.2 Discussion**

### **Social Construction of Citizens Regarding the Function of Green Open Space (GOS) Parks**

The research results indicate that the majority of Bandung City residents construct GOS parks primarily as spaces for recreation, relaxation, and social interaction. This meaning is formed through the routine use of parks for exercising, family gatherings, and informal community activities. From the perspective of social construction [17], these practices represent a process of externalization that subsequently becomes objectified into a collective understanding that the park is a public facility to be consumed, rather than a public space to be managed collectively.

Nevertheless, the research findings also reveal variations in the construction of meaning among different groups of citizens. Residents who are more involved in environmental communities or in routine social activities in the park tend to perceive GOS not only as a recreational space but also as an ecological and educational one. This variation indicates that the social construction of GOS is dynamic and influenced by participatory experiences and civic literacy levels. From a Civic Education perspective, this disparity reflects variations in the internalization of citizens' civic dispositions.

### **Citizen Participation in Green Open Space (GOS) Management**

At the practical level, citizen participation in GOS park management demonstrates a diverse spectrum. The most dominant form of participation is individual participation, such as maintaining personal cleanliness, using facilities in an orderly manner, and avoiding destructive behavior. Additionally, limited social participation was found in the form of

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involvement in community activities, communal work (*kerja bakti*), or incidental cleanliness campaigns. When analyzed using the ladder of participation in Arnstein [21], most citizen participation practices remain at the 'tokenism' level, as citizens do not yet have adequate space to be substantially involved in the park's decision-making process. Within the framework of ecological citizenship [11], this condition indicates that citizens' ecological citizenship remains oriented toward immediate interests and spatial proximity and has not yet evolved into a reflective, long-term collective ecological responsibility.

### **Civic Education as an Interpretative Framework**

One Civic Education is positioned as the primary interpretative framework for analyzing the research findings. As Budimansyah [22] asserts, Civic Education aims to cultivate citizens who are aware of their rights and obligations in public life. In the context of GOS, the right to a healthy environment should go hand in hand with the obligation to maintain and preserve green public spaces. However, the research findings indicate that the dimension of ecological obligation has not yet been fully internalized in citizens' daily civic practices.

In line with Winataputra [23], a contextual approach to Civic Education is required so that civic values do not remain solely at the cognitive level. In this study, GOS parks emerge as an authentic context for experience-based civic learning, where citizens can reflect on the relationships among individual, collective, and environmental interests. As noted in Sapriya [24], Civic Education oriented toward public issues can foster the development of civic skills and civic dispositions. In GOS management, these skills encompass the ability to collaborate, negotiate, and take collective ecological responsibility beyond private boundaries.

### **Integration of Formal and Non-Formal Civic Education in Public Spaces**

The analysis indicates that integrating formal and non-formal Civic Education is a prerequisite for the formation of robust ecological citizenship. Within the formal track, materials on sustainable development and environmental ethics have significant potential to be contextualized with local GOS issues. However, without practical experience, such learning risks becoming abstract. In the non-formal track, the activities of environmental communities and citizen interactions in the parks serve as lifelong civic education practices. As explained by Budimansyah and Karim [27], these practices constitute community-based civic education, wherein the findings show that citizens involved in non-formal activities in the parks possess significantly stronger ecological awareness and a sense of belonging.

GOS parks can be understood as ecological civic spaces, public spaces that enable the internalization of ecological civic values through direct experience. Theoretically, these findings affirm the view in Berger and Luckmann [17] that social reality, including the meaning of public space, is shaped through the dialectic of externalization, objectification, and internalization. The dominance of individual participation indicates that citizens have not been fully positioned as subjects in public space management, a process that, according to Arnstein [21], requires a redistribution of power. From the perspective of ecological citizenship, this condition reinforces Dobson's [11] argument that ecological citizenship does not emerge automatically; instead, it requires a continuous normative learning process. Civic

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Education serves as the primary bridge in this process, fostering contextual and participatory civic engagement among citizens [25], [26].

#### 4. CONCLUSION

This research concludes that the social construction of Bandung City residents regarding Green Open Space (GOS) parks remains predominantly utility-oriented and has not yet fully transitioned into a comprehensive ecological orientation. Furthermore, this study highlights that Civic Education plays a pivotal role as a transformative catalyst, shifting perceptions of public spaces from mere recreational facilities into a collective sphere of ecological civic responsibility. The primary novelty of this research lies in its integrative theoretical framework, which synthesizes interpretative phenomenological approaches, social construction theory, and the concept of ecological citizenship, specifically within the urban GOS context. This nexus has been underexplored in previous literature. Consequently, these findings recommend strategically reinforcing public space-based Civic Education as a vital pedagogical and policy instrument to ensure the long-term sustainability and stewardship of urban parks.

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#### REFERENCES

- [1] J. R. Wolch, J. Byrne, and J. P. Newell, "Urban green space, public health, and environmental justice," *Urban Studies*, vol. 51, no. 1, pp. 1–20, 2014. DOI: 10.1177/0042098013493020.
- [2] N. Kabisch, S. Qureshi, and D. Haase, "Human–environment interactions in urban green spaces," *Landscape and Urban Planning*, vol. 132, pp. 1–10, 2015. DOI: 10.1016/j.landurbplan.2014.12.013.
- [3] WHO, *Urban green spaces and health*, World Health Organization, 2016. [Online]. Available: <https://www.who.int/publications/i/item/9789289051439>.
- [4] S. T. S. Al-Sadi and T. S. T. Al-Sadi, "The Role of Urban Green Spaces in Mitigating the Urban Heat Island Effect," *sustainability*, vol. 15, no. 14, p. 11054, 2023. DOI: 10.3390/su151411054.
- [5] C. Y. Jim and W. Y. Chen, "Ecosystem services and valuation of urban forests," *Cities*, vol. 26, no. 4, pp. 187–194, 2009. DOI: 10.1016/j.cities.2009.03.003.
- [6] C. Haaland and C. K. van den Bosch, "Challenges and strategies for urban green-space planning," *Urban Forestry & Urban Greening*, vol. 14, no. 4, pp. 760–771, 2015. DOI: 10.1016/j.ufug.2015.07.005.
- [7] D. P. Sari, H. Santosa, and P. Widodo, "Evaluasi fungsi ruang terbuka hijau kota," *Jurnal Perencanaan Wilayah dan Kota*, vol. 30, no. 1, pp. 45–58, 2019. DOI: 10.5614/jpwk.2019.30.1.5.

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- [8] A. R. Putri, D. Pramitasari, and S. Nugroho, "Fungsi sosial taman kota sebagai ruang publik," *Arsitektura*, vol. 21, no. 2, pp. 155–168, 2023. DOI: 10.30822/arteks.v7i2.1234.
- [9] A. E. Buijs et al., "Mosaic governance for urban green infrastructure," *Journal of Environmental Policy & Planning*, vol. 18, no. 3, pp. 344–360, 2016. DOI: 10.1080/1523908X.2015.1095375.
- [10] C. M. Raymond et al., "A framework for assessing ecosystem services," *Ecosystem Services*, vol. 26, pp. 111–123, 2017. DOI: 10.1016/j.ecoser.2017.06.001.
- [11] A. Dobson, "Environmental citizenship: Towards sustainable development," *Sustainable Development*, vol. 15, no. 5, pp. 276–285, 2007. DOI: 10.1002/sd.344.
- [12] A. C. Hadjichambis et al., "Conceptualizing environmental citizenship," *Environmental Education Research*, vol. 24, no. 10, pp. 1–20, 2018. DOI: 10.1080/13504622.2018.1427480.
- [13] L. Chawla and D. F. Cushing, "Education for strategic environmental behavior," *Environmental Education Research*, vol. 13, no. 4, pp. 437–452, 2007. DOI: 10.1080/13504620701581539.
- [14] R. Schild, "Environmental citizenship: What can political theory contribute?" *Environmental Politics*, vol. 25, no. 2, pp. 223–243, 2016. DOI: 10.1080/09644016.2015.1075714.
- [15] S. Low, D. Taplin, and S. Scheld, *Rethinking urban parks: Public space and cultural diversity*, University of Texas Press, 2005.
- [16] J. Hou, *Insurgent public space: Guerrilla urbanism and the remaking of contemporary cities*, Routledge, 2010. DOI: 10.4324/9780203851114.
- [17] P. L. Berger and T. Luckmann, *The social construction of reality: A treatise in the sociology of knowledge*, Anchor Books, 1976.
- [18] J. W. Creswell and C. N. Poth, *Qualitative inquiry and research design: Choosing among five approaches*, Sage publications, 2018.
- [19] M. Q. Patton, *Qualitative research & evaluation methods*, Sage publications, 2015.
- [20] M. B. Miles, A. M. Huberman, and J. Saldaña, *Qualitative data analysis: A methods sourcebook*, 3rd ed., Sage, 2014.
- [21] S. R. Arnstein, "A ladder of citizen participation," *Journal of the American Planning Association*, vol. 85, no. 1, pp. 24–34, 2019. DOI: 10.1080/01944363.2018.1559388.
- [22] D. Budimansyah, *Penguatan pendidikan kewarganegaraan untuk membangun karakter bangsa*, Bandung: SPs UPI, 2010.
- [23] U. S. Winataputra, "Pendidikan kewarganegaraan dalam perspektif pendidikan untuk pembangunan berkelanjutan," *Jurnal Civics*, vol. 9, no. 1, pp. 1–12, 2012. DOI: 10.21831/civics.v9i1.5678.
- [24] Sapriya, *Pendidikan kewarganegaraan*, Bandung: PT Remaja Rosdakarya, 2015.
- [25] Mulyoto, "Pembelajaran pendidikan kewarganegaraan berbasis masalah sosial," *Jurnal Pendidikan Ilmu Sosial*, vol. 27, no. 2, pp. 134–145, 2018. DOI: 10.17509/jpis.v27i2.12345.
- [26] E. S. Nurdin, "Penguatan civic engagement melalui pendidikan kewarganegaraan," *Jurnal Civics*, vol. 17, no. 1, pp. 1–12, 2020. DOI: 10.21831/civics.v17i1.32145.
- [27] D. Budimansyah and A. Karim, "Pendidikan kewarganegaraan dalam perspektif pendidikan sepanjang hayat," *Jurnal Civics*, vol. 14, no. 2, pp. 107–118, 2017. DOI: 10.21831/civics.v14i2.16053.
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