

Perspective of Manager and Expert Practitioner on User Needs of City Park in the Framework of Sustainability of Public Open Space Management of Malang City East Java Indonesia

Hendra Kurniawan¹, Agung Murti Nugroho², Amin Setyo Leksono^{3*}

¹Master Program of Environmental Resource Management and Development, Postgraduate School, Universitas Brawijaya, Indonesia

²Department of Architecture Engineering, Faculty of Engineering, Universitas Brawijaya, Indonesia

³Departments of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya, Indonesia

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Abstract- Urban park as public open space that sustaining pillars of environmental, economic, and social of urban sustainability is a place managed by user needs approach as input, and target it as part of long-term objectives and values [2]. This qualitative research used two-parks case study approach in Malang City studied through the perspective of the manager and professional landscape architect. The objective of this study are to describe the attributes of urban park user needs commonly considered in urban park management; and (2) to reveal the implementation of that value within its management framework. In-depth interviews and previous research studies were combined to explore and investigate data, then filled in the frame work analysis instruments which include the use of user needs data and supporting resources as inputs; programs or activities,

I. INTRODUCTION

The role and function of city parks as public open spaces in urban areas is known to be very important. Some of them are related to the addition of the economic value of an area, improving the mental and physical health of the community, creating a better bond between individuals in social relations, and even evidence of its existence can suppress crime events [1]. The existence of the park is also part of the city's sustainability indicators, i.e. an increase in biodiversity [2]. Furthermore, the value of experience of its use by the public in the form of city imaging is part of the principle of city integrity [3]. In Indonesia, the role of City Park in certain levels is known to affect the improvement of the quality of community life [4].

approaches and related indicators as output; and related management objectives or goals as outcomes. The result showed that the urban park management was considered through the attributes of user needs that are general, specific, and enriching according to stakeholder precedent. The framework analysis shows that urban park management based on user needs, implemented with an orientation of annual work program fulfillment. A higher goal objective (long-term) is required, as measured by a broader indicator of the performance of the park (key performance indicator) to achieve the sustainability of the public open space.

Key words- Authority, Decentralization, Regional Government, Nature Tourist Park

The mismanagement of urban parks as an imprecise public space can lead to decreased quality. It is characterized from the following situations: abandoned garden, low of visitor number full of garbage, many destroyed facilities and unhealthy plants. As a result of research in Medan City Park comparing several aspects of the functionality and completeness of city parks through user perceptions, it shows that park visits are also influenced by the convenience of existing facilities [5]. It is referred to as the result of unsustainable management [6]; [7]. Some contextual factors such as user needs and aspirations, place characteristics, partnerships, governance, policies, funding and evaluation have not been thoroughly planned [6]; [8].

The complexity of the reality of urban public space to be faced is also higher, and there is a tendency to shift the approach from performative

and behavior toward alternative models that combine the two [9]. Some of the fundamental issues involved include an understanding of the public space terminology used [10], management capacity [11], and understanding of managers and stakeholders in establishing of long-term management values or goals [11]. It can be said, however, that the most important dimension to be addressed at the same time as a foothold in public open space management is the user's need; which concerns his perceptions, behaviors, and aspirations, which are contextually related to local cultural and cultural reflections [12].

Furthermore, from the above description, the challenge in sustainability of urban park management as a public space-if purred as the most basic framework-lies in its revitalization efforts that reflect social life and interactions among individuals concerning motivation, perception, diversity, and background as the distinctive character that appears to the place [13]. It also serve as the supporting parties' role in ensuring public stability, enabling long-term management contracts and contributing resources [11]; [14]; including the suitability of user data used in further decision making [15].

In the context of the development of Malang City, Indonesia, the local government has announced that increasing the number of parks as green open spaces in every sub-district is a benchmark of success in environmental governance performance. Regardless of the debate over the amount of green open space needed to achieve the mandate of the law and government regulations as a national standard [16], and its safeguarding of land-use transfers in the form of asset management [17], the Malang City Government manage more than 9.6% of green open spaces [18]. The 34.6 ha of them are urban parks, both as active park (69,999 m²) that can be enjoyed directly by the community for activity, and passive park (284,240 m²) as reinforcement of decoration of Malang City. How many of these parks is the result of the development and development efforts (transfer) of the built and un-built areas, as well as the results of the green open space revitalization activities of the partnership funding program. Thus, the management of a good city park is an important activity that requires thinking and work of many parties, as a form of best service to the community, especially residents of Malang.

Previous research on user behavior, especially in the context of the parks of Malang City, is not widely found. The enrichment of results is still limited to observations, perceptions and user preferences (visitors) to the pattern and arrangement of park facilities. The results are also

not harmonized with the utilization by related parties and the level of influence on the framework of public space management of Malang City.

Therefore, the following research is partly an effort to lay the foundations of city park management as a public open space in a sustainable manner through knowledge support and a deep understanding of the aspects of user needs (visitors) for further management decisions. The achievement is done by reviewing the manager's and professional's point of view to the user's needs and the level of their implementation within the framework of managing the city park as a public open space. The outcomes are the solving direction for the gap between the expectations of the users (visitors) and the professional managers and practitioners, namely in the form of (1) identification of user needs attributes commonly considered in management activities, and (2) evaluation of their application within the park management framework of Malang City.

Previous research explores the response of physically disabled users and users who can not use impassioned hands-feet against three background objects; Merdeka Square, Gajayana Square and Rampal Field. The result is Merdeka Malang Square has a better inviting factor than the other two settings. Among these are comfort factors for shade, seating, easy location and proximity to other public facilities [19].

User behavior research in Town Square Malang also been implemented by Winansih and Adhitama. The result is a dominantly visible user activity that is exercising, eating, drinking, socializing, and stopping for exploration [20]. While Adhitama shows that physical settings that affect behavior patterns are shade, seating, lighting, accessibility, a place to eat and drink, and plaza [21].

Research Putri et.al at Trunojoyo Park was conducted using behavior mapping techniques, through observation of users and setting of park attributes. The study aims to examine the pattern of user activity on the site attribute setting. Important results include the need for space for sports, seating, and socializing. The addition and subtraction of the site attributes will affect behavior setting control activities [22]. The objective of this study are to describe the attributes of urban park user needs commonly considered in urban park management; and (2) to reveal the implementation of that value within its management framework.

II. MATERIAL AND METHOD

The search results are based on matching keywords on internet browsers and easily accessible printed libraries. Adequacy is based on the limited accessible resources, which it may be admitted may be the implications of subsequent research.

This research uses descriptive qualitative approach. The proposed construct is the variety of perspectives on the needs of users in public open spaces, affecting the management framework. The assumptions that are built are; (1) interested parties use various means to explore user needs data as inputs in public open space management activities; and (2) interested parties have a particular way of working in order to achieve the management objectives in a specific place context. The selected case study object is the public space of the public park (park / park) category used actively by the community (active park), the object mentioned by the main literature (previous research on user behavior in Malang City Park).

This study explored primary data from two groups of participants (stakeholders of city park); i. e. managers and professionals, through deep interviews. The management group is the work unit of Malang City Government, which has the scope of duties and authority related to the management of the city park, namely 1 person from the Housing and Settlement Service (P1), and 1 person from the Planning, Research and Development Agency (P2). While the professional group is a person who has experience in urban park management work for at least 2 years, namely landscape architects who have certificate of expertise and work in Malang City (A1, A2, A3). Other stakeholder networks such as economic actors and civic organizations as defined by *Stadlers (2014)*, are not included in data collection, and are not included in the scope of the study [23].

Method of collecting data

Participants were surveyed with open interviews. The same question was asked to each group of participants in two categories, namely introductory questions and deep questions. The second grouping of questions involves a focus on deep opinions, critical thinking on user needs in urban parks and their sustainability management framework, including more detailed questions (evolving using two case study objects), which involve an overview of responses and informant views. While questioner is added to be used as an opening tool (introduction) in forming mutual understanding to research purpose between researcher and informant in interview session.

To achieve the objectives of the first study, the researcher developed cross references technique at preliminary questioner examination session with interview result, then discussed with previous research through matrix of suitability of user requirement from case study object. Opening questions proposed related to the four categories of user needs as follows: a). part of park that motivate users, b) The motivation to visit city park, c) Facilities those support user activities, d) situations those inhibit users from activities.

Discussions were developed related to; (1) a list of user needs attributes commonly considered by participants in park management activities; (2) the degree of conformity attribute of findings with previous research based on two case study objects; and (3) differences of views between the two groups of participants to attribute the needs of users in the city park.

The in-depth interview design is prepared by referring to the basic categories of framework analysis, including management objectives, approaches and indicators, resources used, and support programs or activities. The whole is divided into ten key questions, consisting of 6 basic questions and 4 negative questions to check and confirm the answers.

A literature study was done against a reliable secondary source in the form of 4 scientific articles concerning users in the context of Malang's public spaces, 2 written reports covering approaches in public open case studies in extensive case studies, several articles on attribute user needs in public space, plus some textbooks that present basic theories of public space management (Table 1).

Table 1. Aspect of assessment in the main literature

Study aspects	Sources
User needs in the public space of Malang City	Kurniawan (2010) [19]; Winansih (2010) [20]; Adhitama (2013) [21]; Putri et.al (2017) [22]
Frameworks and approaches in public space management	SF Planning (2014) [24]; IVAR (2016) [25]
Theory and concept of public space management	Porteous (1977) [14]; Carr et.al (1992) [12]; Carmona et.al (2008) [7]; Zakaria

	(2017) [18]; Standler (2014) [23]
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A logical framework analysis (LFA) method is used to understand the linearity of the user needs aspect with management goals or objectives. LFAs can provide an appropriate overview of the objectives of an activity and pay close attention to the level of upper-middle justification, including external circumstances and information needs of monitoring and evaluation activities [26]. Research with LFA may mean verification of the logical verification or verification of the work system (operational verification) that can use all sources in search of relationships, either through literature review or oral explanations [27]. The basic framework of LFA research is developed through the use of relationships of the three aspects of logic thinking; inputs, outputs, and outcomes.

III. RESULT AND DISCUSSION

1) Profile of Management of Malang City Park

The Office of Housing and Settlement Area of Malang City performs the task of managing the city park through the organizational unit of field of gardening. Duties and responsibilities of this office in general is to manage the green open space area as defined in the regulation of Mayor of Malang, which formulate policies, plan development and structuring, carry out maintenance of green space, and carry out guidance to the environment community.

The Planning, Research and Development Board of Malang has a broader scope of work, which does not directly carry out the tasks of city park management in terms of coordination of asset / infrastructure management and study of social, environmental, and economic aspects as an influential aspect for the progress of Malang City. Merdeka Square has changed several times since it was first built in 1882. The last revitalization was implemented in 2015 by the Government of Malang City in cooperation with Bank Rakyat Indonesia (Indonesian People Bank) in the corporate social responsibility funding scheme. Some of the facilities that can be found on Merdeka Square were a dance fountain with light beam, bird feeding spot, photo booth (Figure 1), skateboard area, street dance / break dance area, playground, gazebo and park bench, *wifi* access, around parks, pedestrian paths, special nursing rooms, and scattered trash cans.

The latest revitalization of Trunojoyo Park as an intelligent park implemented in 2014 through

corporate social responsibility (CSR) funding program Bentoel Prima Co.Ltd. Trunojoyo Park consisted of two parts; namely the north and south side of the park. The north side park is equipped with gazebo facilities, a library, a reflexology area, a playground area, and a water fountain. While the south side park is an area to eat - drink in the form of food court.



Figure 1. Photo booth is the innovation to increase high interest for city park users

2) Considered User Considerations in Park City Management

In-depth interviews with managers and professional Landscape Architects on the needs of Malang City Park users result in different perspectives. These differences appear as a disparity in either the introductory session in the form of a free question or after being confirmed from an in-depth interview. Table 2 presents the complexities of the managers and expert practitioners' perspectives, evolving following a common and specific user requirement attribute framework.

The shade park element (MA 1), in the managers' and professional's way of view is the shade of canopy trees in the park, which is considered important because it reflects the function of the park as green open space. In another perspective, some public space managers usually assume that trees are not an absolute element of public open space, since the main function expected is where to build social interactions beyond environmental interests [28]. Furthermore, professional participants gave the view that the shade of tree shade provides the thermal comfort preferred by the user.

The uniqueness of the park (MA6) is an attribute of decor in the park that is viewed by the manager as an effort to promote the park. It is also seen as important by professionals, seeing the fact that the uniqueness approach is able to invite an effective park visit, although it is recognized to have limited time due to boredom so that it demands continuous decoration innovation.

Table 2. Matrix of Conformity of Expert View and Practitioner Expert on Attribute of Park User Needs with Prior Research

Categories	Codes	Attributes	Participant Perspective					Result
			P1	P2	A1	A2	A3	
Motivation Aspect (MA)	MA1	Shade	●	●	●	●	●	+++
	MA2	Sunlight			●	●		+
	MA3	A land of grass	●	●	●	●	●	+++
	MA4	Amenities	●	●	●	●	●	+++
	MA5	Neighborhood			●	●	●	++
	MA6	The uniqueness of the garden	●	●	●	●	●	+++
	MA7	The existence of park parking			●			+
Motivation Factors (MF)	MF1	Health	●	●	●	●	●	+++
	MF2	Eating and drinking			●	●	●	++
	MF3	Enjoy the crowds		●	●	●	●	+++
	MF4	Family and friend relationship	●		●	●	●	+++
	MF5	Play / activity	●	●	●	●	●	+++
Supporting Mode (SM)	SM1	Pedestrian path	●	●	●	●	●	+++
	SM2	Sports Facilities	●	●	●	●		+++
	SM3	Seat	●	●	●	●	●	+++
	SM4	Lighting		●		●	●	+
	SM5	Sanitation			●	●	●	+
	SM6	Smoking area	●	●	●			+
	SM7	Play ground	●	●	●	●	●	+++
	SM8	Photo area	●		●			+
	SM9	Wifi (internet access)			●			+
	SM10	Gazebo			●			+
Repellent Mode (RM)	RM1	Accessibility within the park	●	●	●	●	●	+++
	RM2	Garden facilities	●	●	●	●	●	+++
	RM3	Cleanliness			●	●	●	++
	RM4	Security / image of the place			●	●	●	++

Note: *) +++ = approved by almost all participants in two case study objects; ++ = is agreed differently on two case study objects; + = considered as a custom attribute; and - = attributes that are poorly considered

Table 3. Differences of Management and Professional Views of Some of the City Park User Needs Attributes

Manager perspective	Professional perspective
List of park elements that motivate visitors (MA)	
Environmental friendliness (MA5) is an unruly attribute, especially if the park is in a less accessible location	Environmental friendliness (MA5) gives more reasons for users to plan park visit activities
List of visitor's internal motivation to visit (MF)	
Eating - drinking (MF2) is an attribute that invites the existence of street vendors, which are considered disturbing the order.	Eating - drinking (MF2) is a natural instinct that must be fulfilled in the most humane way, in addition to forming a contribution to the local economy, also forming social ties between the seller and the buyer. Professional presence for professionals is a common practice that affects the level of park user visits

List of causes of visitor inconvenience to activity	
Cleanliness (RM3); for some maintenance actions are still often exacerbated by visitor behavior that does not maintain cleanliness and order (difficult to control)	Cleanliness (RM3); is an inviting quality that affects comfort.
Site image / security (RM4); disorderly behavior of the user is difficult to control. It still needs the rules that govern it.	Site image / security (RM4); is part of the user experience that creates a good and bad perception of a place. A good image will certainly invite more visitors.

The management and landscape architect of Malang City differs in view of attribute of user requirement, especially facility aspect which supports user activity on two object of case study submitted to them. Most of these views are attributed to attributes as special considerations that arise as development ideas because of their different design goals. Both groups of participants agree that each city park has a different purpose of existence, so the park can be referred to as a theme park. But in its application-what are the facilities that need to be accommodated in them-the two groups are different views.

Sunlight exposure attributes (MA2) and the existence of park parking (MA7) are important attributes but only if the development site allows. Curb of sunlight is generally required by users of the elderly to get energy in the morning [21]. However, if the coverage area is more dominant and access to the location is also low, then this attribute becomes less important. Merdeka Square is a great example of such attributes, and otherwise less good for Trunojoyo Park. The

existence of parking for the landscape architects is a major consideration caused as an element of convenience that invites visitors, but on the contrary, for the manager it is constrained by the expanse of the developed park. Parking facilities for the manager is a fulfillment that can arise from the surrounding environment.

Attribute supporting facility of user activity; (lighting) SM4, (sanitation) SM5, (Photo area) SM8, (wifi) SM9, and (gazebo) SM10, are viewed differently by the participants. Generally these attributes are a support facility added when possible, or a thematic tendency, that is part of the demands of a small number of users (certain communities) and in accordance with the theme / purpose of the park's development. However, all participants agreed that it was common in park sites with high intensity and number of visits.

Table 4. Tabulation of Management and Professional Input Indicating the Urban Park Management Framework

Code	Participant perspective	Parameter explanation
	User needs data	
P1	Data collection: involves a park development unit that digs data for development activities; ask for input from academics and experts in FGD	Use field data
P2	essential attribute needs; MA3, MA4, MF1, MF5, SM2, SM7, AM2	Use limited field data
A1	Data collection: utilizing data reports and user research results (social community) is limited in the context of the area (urban planning)	Use limited field data
A2	essential attribute needs; MA3, MA4, MF4, MF5, SM3, SM7, SM8, AM2	Use limited field data
A3	Data collection: utilizing literature data in park design activities, and user observation in the field	Use limited field data
	Resources	
P1	Important user requirement attributes: MA1, MA6, MA7, MF1, MF2, MF4, MF5, SM2, SM8, SM9, SM10, AM1, AM4	Own resources with limited funds
P2	Data collection: utilizing supporting party data, plus simple survey in design activities	Own resources with limited funds
A1	Important user requirement attributes: MA1, MA5, MF4, MF5, SM1, SM3, SM4, SM5, SM7, AM1, AM2	Own resources with limited funds
A2	Data collection: utilizing supporting party-related data and literature in planning activities	Own resources with limited funds
A3	Attributes of important user needs: MA1, MA4, MA6, MF1, MF5, MF3, SM2, SM3, SM5, AM2, AM4	Resources are not yet sufficient

Table 5. Manager and Professional Output Indicating the Urban Park Management Framework

Code	Participant perspective	Parameter explanation
	Programs/activities	
P1	Important programs: CSR funding, park socialization, and facilities / decoration, cleanliness and neatness	Activity-oriented garden progress
P2	Important activities: cooperation with related parties, facility revitalization, cleanliness and neatness	Activity-oriented garden progress
A1	Programs are considered important: socialization of parks, revitalizing parks, extracting ideas from the community, funding partnerships, park events	Activity-oriented garden progress
A2	Programs are considered important: socialization of parks, facilities and decoration	Activity-oriented garden progress
A3	Programs are considered important: socialization of parks, facilities, private fundraising	Activity-oriented garden progress
	Approaches and indicators	
P1	Approach: routine maintenance, decoration innovation, park event Maintenance indicator: grass health Important user indicators: number of visitors, number of damaged facilities, user satisfaction, number of violations of local regulations	Approaches are relevant to indicators that meet user needs
P2	Approach: routine maintenance, decoration innovation Important user indicators: number of visitors, user satisfaction	Approaches are relevant to indicators appropriate to user needs
A1	approaches are considered important: routine maintenance, event, innovation - general management indicators: biodiversity, money circulation, thermal comfort level - important user indicators: number of activities, number of visitors, level of community engagement	Approaches are relevant to improving environmental quality
A2	- Approaches are considered important: maintenance-based design, event, innovation - general management indicators: conformity of design objectives, green links garden, - important user indicators: easy accessibility, number of activities, social interaction, security, visitor satisfaction	Approaches are relevant to indicators that meet user needs
A3	- Approaches are considered important: regulatory sanctions, ideal maintenance, innovation, park events, CSR cooperation - General management indicators: number of activities, state of the park facilities - Important user indicator: visitor convenience	Approaches are relevant to indicators that meet user needs

Table 6. Tabulation of Management and Professional Outcome Indicating the Urban Park Management Framework

Code	Participant perspective	Parameter explanation
P1	Goal: coordinate the development activities of the city in the form of decoration and completeness of facilities, and maintenance for community use Important value of user needs: unearthed at the beginning of park development activities (project) Common style view; visitor enthusiasm is high, but the sense of having it is low	Has a goal-oriented work objective to achieve the program
P2	Target: to provide results of research on social and evaluation field that advances Malang Important value of user needs: inputs in evaluation activities are limited. The details are in the relevant departments Common style view: the user consists of many groups that need to be accommodated for their interests	Has a goal-oriented work objective to achieve the program
A1	Goal: make the park useful for the whole community and on target An important value of user needs: the management process must be bottom up, exploring the	Has a job target oriented to user satisfaction

	opinions of many parties General view: Malang garden users are happy with the culinary experience	
A2	Target: facilitate the existence of a functional park and good maintainers An important value of the user's needs: the user's need to be a supporter of the idea of related parties, the usual technical aspects considered in the beginning Common style view: high user heterogeneity, almost all products are the adoption of the outer style. Culinary, social chaos, and innovation are essential	Has a goal-oriented work objective to achieve the program
A3	Target: creating and maintaining a comfortable park for all levels of society An important value of user needs: user needs are identified from growing trends that support stakeholder ideas. Common view: the user of the city park is unhappy with the public crowd	Has a goal-oriented work objective to achieve the program
Work goals and targets		
P1	Goal: coordinate the development activities of the city in the form of decoration and completeness of facilities, and maintenance for community use Important value of user needs: unearthed at the beginning of park development activities (project) Common style view; visitor enthusiasm is high, but the sense of having it is low	Has a goal-oriented work objective to achieve the program
P2	Target: to provide results of research on social and evaluation field that advances Malang Important value of user needs: inputs in evaluation activities are limited. The details are in the relevant departments Common style view: the user consists of many groups that need to be accommodated for their interests	Has a goal-oriented work objective to achieve the program
A1	Goal: to make the park beneficial to the entire community and on target Important value of user needs: the management process must be bottom up, exploring the opinions of many parties General view: Malang garden users are happy with the culinary experience	Has a job target oriented to user satisfaction
A2	Target: facilitate the existence of a functional park and good maintainers An important value of user needs: the user's need to be a supporter of the idea of related parties, the usual technical aspects considered in the beginning Common feature view: high user heterogeneity, almost all products are the adoption of the outer style. Culinary, social chaos, and innovation are essential	Has a goal-oriented work objective to achieve the program
A3	Target: creating and maintaining a comfortable park for all levels of society An important value of user needs: user needs are identified from growing trends that support stakeholder ideas. General view: the user of the city park is unhappy with the public crowd	Has a goal-oriented work objective to achieve the program

3) Evaluation of Malang City Park Management Framework

Ten questions asked to participants through in-depth interviews showed slightly different outcomes among them on how city park user data were extracted and utilized, resources used, essential management programs, approaches, and intended targets. The results lead to an input framework: (a) limited use of field data of user needs, (b) resources with limited funds ; outputs framework(Table 4): (a) park-oriented programs, with (b) a relevant approach to indicators according to user needs (Table 5); and outcomes: (a) goal-oriented work objectives (Table 6).

The utilization of user needs data is generally considered to be sufficient by utilizing the results of the reports prepared by the managers and the completeness of the technical guidance collected through the collection of various parties' opinions in the planned discussion (FGD). Managers in such a perspective understand that accommodating the needs of users means presenting innovative innovations on the procurement of park facilities and decorations as part of inviting visitors. The development program is arranged with the direction of promoting the park as part of pride of

Malang City. Similarly, the perspective built by landscape architects. With some breadth of insight into the needs of users-as a result of access to literature-supporting literature-they agree that user satisfaction is also created with their self-image that is united to the pride of Malang City through a great interest in innovative park elements. Landscape managers and architects feel it is important to review appeals in the form of adoption-design development in efforts to advance the city park.

Landscape Architect see that the adequacy of funds is an important aspect of city park management. Limited funding creates its own difficulties for park maintenance activities. Financing for daily freight and tool rejuvenation is a common constraint affecting maintenance activities. On the other hand, human resources are also viewed by landscape architects as a constraint that influences in terms of the effectiveness of maintenance activities, namely due to land status and individual capacity. Managers in this regard argue the solution can be done by formalization, namely strengthening local regulations

Landscape managers and architects have limited views on possible approaches to park management and indicators

designed to check their success. A common approach that is seen as important is limited to routine maintenance, decoration innovation, CSR funding, and park events.

Indicators of successful management of Taman Kota Malang can be mentioned by participants in a limited way. It is generally seen that the important management indicators are the number of visitors, the number of damaged facilities, the number of park activities, and the level of user satisfaction. However, on the other side the breadth of the indicator

the following for the landscape architect may also affect the park's performance and the indirect needs of the user, namely biodiversity, thermal comfort level, money circulation, design level of compliance with maintenance objectives, the amount of activity, social interaction, and the incidence of violations in the park.

The views on city park management objectives lead to program-oriented targets, which appear to be dominantly in the interest of providing facilities for ongoing renewals. This is because most participants perceive that the user's needs are considered as a supporter of the idea of a party related to the general pattern of following a growing societal social trends. Almost all participants convey the idea of the goal of managing the city park is to make the park can be enjoyed by the community. The target view towards improving the quality of the park as urban green spaces and even an increase in social economic aspects has not been found in most of the participants.

Nam's research identifies a user group that builds a stakeholder network within a public open space. In that case, users consisting of permanent users and potential users-are related to others such as certain communities, academics, and institutions / organizations that are entirely within the professional group, and the group of businesspeople in it [8]. While Chitrakar study entering the user in the aspect of regulation of public space management because of potential conflict of potential that is in it. This together is recognized as an aspiration input in its management [29].

Kurniawan's research explores the response of physically disabled users and users who can not use impassioned hands-feet against three background objects; Merdeka Square, Gajayana Square and Rampal Field. The result is Merdeka Malang Square has a better inviting factor than the other two settings. Among these are comfort factors for shade, seating, easy location and proximity to other public facilities [21].

User behavior research in Town Square Malang also been implemented by Winansih and Adhitama. The result is a dominantly visible user activity that is exercising, eating, drinking, socializing, and stopping for exploration [20]. While Adhitama shows that physical settings that affect behavior patterns are shade, seating, lighting, accessibility, a place to eat and drink, and plaza [21].

IV. CONCLUSION

1. The management of Taman Kota Malang can consider the attributes of user needs as input in the perspective of a general attribute, a special attribute, or based on the precedents of various stakeholders.

2. Evaluation of a user-oriented urban park management framework can be approached by an analytical logical framework of input consisting of data and utilization; outputs consisting of programs (activities) and approaches

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and indicators; and outcomes consisting of the goals or objectives of the management of the city park.

3. Sustainable urban park management requires a higher understanding of the value and objectives of its management (long-term), by translating it into relevant approaches and indicators, useful for checking, reviewing, monitoring and evaluating management activities.

Further research development is needed primarily within the scope of the following themes:

1. Research environmental behavior widely on different place context and user groups.
2. Development of performance rigid indicators (key performance indicators) of city park management or urban park assessment models.
3. Investigation of the level of effectiveness of self-management (government) and the potential value of its decentralization through community roles.

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REFERENCES

- [1].Woolley, H. et. al. (2003). *The Value of Public Space; How High Quality Park and Public Space Create Economic, Social, and Environmental Value*. Cabe Space. London.
- [2].Noss, R. (2004). Can urban areas have ecological integrity? In *Proceedings of the 4th International Urban Wildlife Symposium* (pp. 3–8). Retrieved from <http://cals.arizona.edu/pubs/adjunct/snr0704/snr07041a.pdf>
- [3].Newman, P., & Jennings, I. (2008). *Cities as Sustainable Ecosystems: Principles and Practices*. Island Press. Washington: Island Press. <https://doi.org/10.1111/j.1467-9906.2010.00504.x>
- [4].Nasution, A. D., & Zahrah, W. (2015). The Space is Not Ours, the Life of Public Open Space in Gated Community in Medan, Indonesia. *Procedia - Social and Behavioral Sciences*, 202(December 2014), 144–151. <https://doi.org/10.1016/j.sbspro.2015.08.217>
- [5].Nasution, A. D., & Zahrah, W. (2014). Community Perception on Public Open Space and Quality of Life in Medan, Indonesia. *Procedia - Social and Behavioral Sciences*, 153, 585–594.

- <https://doi.org/10.1016/j.sbspro.2014.10.091>
- [6].Dempsey, N., & Burton, M. (2012). Defining place-keeping: The long-term management of public spaces. *Urban Forestry & Urban Greening*, 11(1), 11–20. <https://doi.org/10.1016/j.ufug.2011.09.005>
- [7].Carmona, Matthew; de Magelhaes, Claudio; Hammond, L. (2008). *Public Space: The Management Dimension* (first). New York: Taylor & Francis e-Library. Retrieved from <http://www.ebookstore.tandf.co.uk>
- [8].Nam, J. (2015). Rethinking urban green spaces: acceptable and feasible landscape management practices for 21. In *Future of Place International Conference* (pp. 1–15). Stockholm: Future of Place.
- [9].Cowley, R. (2015). Reframing the Problem of Public Space in the Sustainable City. In *RC21 International Conference on "The Ideal City: Between Myth and Reality* (pp. 32–38). Urbino: Urban and Regional Development, University of Urbino Carlo Bo. Retrieved from <http://www.rc21.org/en/conferences/urbino2015/>
- [10].Pradinie, K., Navastara, A. M., & Martha, K. D. E. (2016). Who's Own the Public Space?: The Adaptation of Limited Space in Arabic Kampong. *Procedia - Social and Behavioral Sciences*, 227(November 2015), 693–698.
- [11].Mattijssen, T. J. M., Jagt, A. P. N. Van Der, Buijs, A. E., Elands, B. H. M., Erlwein, S., & Laforteza, R. (2017). The long-term prospects of citizens managing urban green space: From place making to place-keeping? *Urban Forestry & Urban Greening*, 26(July 2016), 78–84. <https://doi.org/10.1016/j.ufug.2017.05.015>
- [12].Carr, S., Francis, M., Rivlin, L. G., & Stone, A. M. (1992). *Public Space*. New York: Cambridge University Press.
- [13].Ramlee et al. (2015). Revitalization of Urban Public Space: An Overview. *Procedia - Social and Behavioral Sciences*, 201, 360–367. <https://doi.org/10.1016/j.sbspro.2015.08.187>
- [14].Porteous, J. D. (1977). *Environment and Behavior; Planning and Everyday Urban Life*. USA: Addison - Wesley Publishing Company.
- [15].Ulin, N. (2012). *Upaya Pemerintah Daerah dalam Penyediaan Ruang Terbuka Hijau di Kota Malang*. Malang. Retrieved from https://www.academia.edu/11892394/Upaya_Pemerintah_Daerah_dalam_Penyediaan_Ruang_Terbuka_Hijau_RT_H_di_Kota_Malang
- [16].Akbar, R., & Lukman, A. (2010). Manajemen Taman Milik Pemerintah Kota Bandung Berbasis Pendekatan Manajemen Aset. *Jurnal Teknik Sipil*, 17(3), 171–180.
- [17].Handoyo, F., Hakim, L., & Leksono, A. S. (2016). Analisis Potensi Ruang Terbuka Hijau Kota Malang Sebagai Areal Pelestarian Burung. *Jpal*, 7(2), 86–95.
- [18].Zakaria, N. A. (2017). Sustainable Urban Green Space Management Practice. In *International Malaysia-Indonesia-Thailand Symposium on Innovation and Creativity* (pp. 1–4). ResearchGate. Retrieved from <http://www.researchgate.net/publication/320344911>
- [19].Kurniawan, H. (2010). *Perilaku Lingkungan Kelompok Pengguna Perlemahan Fisik dalam Ruang Publik Kota Malang*. Universitas Tribhuwana Tunggaladewi.
- [20].Winansih, E. (2010). Estetika Simbolis - Sensori Pada Ruang Publik Di Alun-Alun Malang. *Jurnal Local Wisdom*, II(3), 26–28. Retrieved from <http://jurnal.unmer.ac.id/index.php/lw%0Ahttp://jurnal.unmer.ac.id/index.php/lw/issue/view/191>
- [21].Adhitama, M. S. (2013). Faktor Penentu Setting Fisik Dalam Beraktivitas Di Ruang Terbuka Publik: Studi Kasus Alun-Alun Merdeka Kota Malang. *Ruas*, 11(2), 1–9. Retrieved from <http://ruas.ub.ac.id/index.php/ruas/article/view/133/140>
- [22].Putri, A. Y., Ernawati, J., & Ramdani, S. (2017). Pola Aktivitas Pada Ruang Publik Taman Trunojoyo Malang. *Jurnal Mahasiswa Jurusan Arsitektur Universitas Brawijaya*, 5(4), 1–8. Retrieved from <http://arsitektur.studentjournal.ub.ac.id>
- 23 SF Planning. (2014). *A toolkit for funding, programming and maintenance*. San Francisco. Retrieved from <http://www.publicspacestewardship.org>
- [24].IVAR. (2016). *Working in Place; A Framework for Place-based Approaches*. London. Retrieved from <http://www.ivar.org.uk>
- [25].Stadler, R. (2014). Shifting Spaces: Public Spaces Facing New Needs and Expectations. *Buletinul Agir*, 2, 33–40.
- [26].Gasper, D. (2000). Evaluating the “Logical Framework Approach” - Towards learning - Oriented Development Evaluation. *Public Administration and Development*, 20(April 1999), 17–28. [https://doi.org/10.1002/1099-162X\(200002\)20:1<17::AID-PAD89>3.0.CO;2-5](https://doi.org/10.1002/1099-162X(200002)20:1<17::AID-PAD89>3.0.CO;2-5)
- [27].Ramdhani, M. A., & Ramdhani, A. (2014). Verification of Research Logical Framework Based on Literature

Review. *International Journal of Basics and Applied Sciences*, 03(02), 1–9. Retrieved from [http://insikapub.com/Vol-03/No-02/01IJBAS\(3\)\(2\).pdf](http://insikapub.com/Vol-03/No-02/01IJBAS(3)(2).pdf)

[28].Benchimol, J. F., Lamano-Ferreira, A. P. do N., Ferreira, M. L., Cortese, T. T. P., & Ramos, H. R. (2017). Decentralized management of public squares in the city of São Paulo, Brazil: Implications for urban green spaces. *Land Use Policy*, 63, 418–427. <https://doi.org/10.1016/j.landusepol.2017.02.004>

[29].Chitrakar, R. M., Baker, D. C., & Guaralda, M. (2017). Emerging Challenges in The Management of Contemporary Public Spaces in Urban Neighbourhoods. *International Journal of Architectural Research*, 11(1), 1–15.

Hendra Kurniawan – Master Student, Master program of Environmental Resource Management and Development, Postgraduate School, Universitas Brawijaya. Email: redinunka@gmail.com

Agung Murti Nugroho – Department of Architecture Engineering, Faculty of Engineering, Universitas Brawijaya, Indonesia Email: agungmurti@ub.ac.id

Amin Setyo Leksono – Associate Professor, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya. Email: amin28@ub.ac.id

Corresponding author – Amin Setyo Leksono, Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya, Jl. Veteran, Malang, Jawa Timur, Indonesia, 65145. Phone: +62-341-575841, Fax: +62-341-554403. Email: amin28@ub.ac.id

AUTHORS