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Analysis of Actors' Interests and Needs in Maintaining Urban Green Systems in Dar es Salaam City, Tanzania

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Abstract

Maintenance of urban green systems is increasingly favored amongst scholars and policy-makers as an important parameter within sustainable cities framework. Yet, in most cities of the Global South, the maintenance of green systems is in part constrained by the divergent and dynamic interests of multiple actors. This study examines on mechanisms of synchronizing actors' interests synergistically to influence the maintenance of urban green systems and contribute to sustainable cities development. The study adopted a case study design to investigate actor's interests and needs and their influence in maintaining urban green systems in the studied green systems of Mbweni, Kijichi and Buyuni in Dar es Salaam City. Data were collected through interviews with national level government agencies, municipal level authorities, household interviews and consultation with local leaders. The study revealed that different actors had similar and divergent interests and needs on urban green systems and no mechanism existed to synchronize actor's interests. The study also demonstrated that the maintenance of urban green system is affected by power relations among actors which affect decision-making at the community level while reflecting actors' needs. This study concludes that urban green system is composed by various actors with different needs and power relations that obstruct the collective effective maintenance of green systems. The study proposes the need for synergistically synchronizing the actors' diverse and conflicting interests as well as their power relations.

Keywords: *Actors; Interests; Maintenance; Urban Green Systems; Sustainable Cities*

1.0 Introduction

Maintenance of urban green systems is fast becoming an important urban management concept in the context of sustainable cities. As such, the urban green system is one of the considerations for sustainable cities development (Rostami et al., 2015). A conceivable explanation for the growing interest on urban green systems within the academia and among policymakers owes to the believe that they provide considerable ecosystem services Mngumi (2020). However, due to unprecedented rapid urbanization, urban green systems are increasingly disappearing, especially in the countries of the developing world. The Green City Index (GCI) score for Dar es Salaam city indicates that the city is having relatively fewer green systems as compared to the average of African cities collectively (Francis et al., 2022). This might be partly explained by the fact that Dar es Salaam city is among the rapidly growing cities in Africa.

The pursuit for maintenance of urban green systems is largely geared at realizing the diverse needs of multiple actors. At the same time, the disappearance of urban green systems has been associated partly with inadequate coordination of actors owing to their diverse interests and priorities (Nikolaidou et al., 2016; Hassan and Mombo, 2017). One of the challenges facing the maintenance of urban green systems relates to how the diverse interests of actors are perceived, acknowledged and dealt with (Guenat et al., 2021). Nevertheless, cities may be sustained when the green system is maintained and varied actor's interests are attained (Hansen, 2018; UN-Habitat, 2018; Eshetu et al., 2021). Sustainability is about maintenance of green systems and sustainable use of ecosystem services from the green systems (Sandström et al., 2006). Actors' interests are driven from the needs, motivation and existing power relations (Fisher et al., 2011; Admiraal et al., 2017). Some Actors need to conserve green systems while others need to improve their well-being by engaging in maintenance activities (Roth and HSU, 2008; Admiraal et al., 2017). Amidst the divergent and sometimes conflicting needs and interests of actors in the urban green systems, maintaining these systems becomes a complex governance issue that requires a critical look both by academia and policy makers across scales.

The definition of urban green systems which is common to ecologists, economists, social scientists and planners is public and private open systems in urban areas, primarily covered by water and vegetation (Haq, 2011). Urban green systems might be a forest connected to rivers, ponds, and urban parks providing multifunctional ecosystem services for ecological, socio-economic and cultural benefit. In this article urban green system has been employed to include urban forests such as the Kazimzumbwi forest which serves as part of the catchment areas for rivers of Dar es Salaam city that connects to Mbweni and Kijichi green systems through the Mpiji and Kizinga rivers (Figure 1). These green systems are being used by different actors with varied interests i.e. both upstream and downstream users attempts to maintain the urban green systems is even more challenging. Rapid growth of urban areas in the developing world entailing the presence of multiple actors with multi-faceted, conflicting and yet dynamic interests reinforce further the challenges. They are multi-faceted in the sense that they might emanate from varied standpoints including, political, socio-cultural and economic. The interest might be conflicting due to divergent uses. For example, while others are motivated towards conservation of the system others might have interest in exploiting them to meet their well-being. The variation of the interest from time to time as dictated by the seasonal change of driving forces makes the interests to be dynamic. Change of the political environment, underlying economic conditions and socio-cultural underpinnings are examples of the driving forces.

This article explore in what way the interests of actors might be analyzed and harmonized in order to contribute to sustainable cities development. Several studies have attempted to investigate various themes pertaining urban green systems in the African context. The most apparent developments in this growing field of study have been those focusing on urban green space system planning (Bilgili and Gökyer, 2012; Haaland and van Den Bosch, 2015; Wolch et al., 2014); Mapping urban green

infrastructure (Dennis et al., 2018; Zhang and Ramírez, 2019; Zulian et al., 2021; Ramyar et al., 2020); and urban green commons (Colding and Barthel, 2013; Dennis and James, 2016). Studies have also concentrated on explaining the governance of urban green infrastructure (UGI) (Wijesinghe and Thorn, 2021; Simon et al., 2021); and the governance of urban transitions (Swilling and Hajer, 2017; Ernstson et al., 2010).

At the same time an increasing number of research on urban green systems governance in Sub-Saharan Africa (SSA) focus on the analysis of governance of urban green infrastructures in Windhoek's informal settlements, where several factors affected maintenance of green infrastructures such as urban sprawl, climate change, lack of infrastructure services (Wijesinghe and Thorn, 2021; Du Toit et al., 2018). and in west Africa, scholars focuses on the governance issues and challenges of green spaces (Mensah, 2014; Mensah et al., 2017). This is happening despite that, the governance challenges facing urban green systems in cities of the Global South are on the rise contributed in part by the unprecedented urbanization. We contribute to closing this research gap by examining how the multiple and multi-faceted actor's interests can be analyzed and harmonized towards inclusive and sustainable cities development. We examine this topic using Dar es Salaam, the business capital city of Tanzania, as a case study, as it represents broader changes and governance challenges faced by cities across Africa and the Global South. The limited research on urban green systems governance in SSA and the Global South in general constitute the thrust of this article as it communicates and invokes the debate that is less explored. The theoretical and empirical discussions will form the contributions of this article to urban green system lesson. Theoretically, the study provides a critical discussion on governance concepts in the urban green systems context which constitutes part of the theoretical contribution to the body of knowledge. Empirically, this study is illuminated by the evidence on governance tenets of the urban green systems of Dar es Salaam city.

This article is structured in five interconnected sections including this introductory part. The remaining parts of the article proceed as follows: the second part (Section 2), explains a conceptual understanding of the governance: divergent and multi-faceted actor's interest in the urban green systems. The third part (Section 3), outlines and describes the methodological framework as employed in the collection of empirical evidence. The fourth part (Section 4), presents and discusses the findings of this research. The final section (Section 5) provides conclusions of the study and points out some recommendations.

2.0 Theoretical Underpinnings

It can be argued that the concept of governance is variously conceptualized across disciplines, policy frameworks and sometimes geographical context. Notwithstanding, the concept has been applied and used widely in different contexts and disciplines. As such, it is argued that governance is complex to define, measure and put into application (Leach et al., 2007, Van de Meene et al., 2011, Fukuyama, 2013). Fukuyama (2013) explained the concept of governance as the interaction of actors in the enforcement of rules, cooperation in undertaking various roles related to maintenance and making decisions that reflect actor's interests. Each discipline adopts a different conceptualization of governance based on its common analytical approach. This reality renders lack of a unified understanding of the concept of governance (Torfing et al., 2012). While the theoretical tenets of this article are broadly within the governance concept, the article has a distinctive focus into actor's needs and interests, motivation, power relations and decisions. As such, the following paragraphs will focus the discussion on the later concepts within the broad governance concept in the context of maintaining the urban green systems in cities of the Global South. Actor's interest is usually associated with the motivation for the institution to engage in a particular activity (O'Keefe et al., 2017). On the other hand, motivation is associated with the desire that one has to do something to fulfill public or own interests. In fact, motivation is related to

incentives that one gets from other persons or institutions based on the role played. When there is motivation, usually actors engage and through engagement, they involve themselves in specific actions to meet the desired needs (Deci and Ryan, 2000). Motivation is one of the variables that can determine individuals or groups of individuals' interests. Through motivation, one can be encouraged in any organized activity to fulfill a particular interest (O'Keefe et al., 2017). Nature conservation has widely motivated different groups to support the conservation, preservation and maintenance of the environment (Admiraal et al., 2017). People's motivation usually increases support for maintaining green systems and increases cities' resilience. The motivation can be in the forms of economic support including financial support and values or benefits associated with urban green systems (*ibid*).

Power relates to the relationship between the actors. It is related to the capacity of individuals or groups of individuals to influence others so that they support their interests (Gaventa, 2005 Nuijten (2005) demonstrated three types of power: structural power, strategic and institutional power. Institutional power is generally related to invisible power exercised based on the established rules and takes into account the assigned mandates for an individual(s) to fulfill certain roles such as planning for various land uses and patrolling to mention a few. Reflecting the maintenance of urban green systems, institutional power is exercised through multiple, interwoven institutions based on what is prescribed in the existing regulations (Kicheleri *et al.,* 2018; Kajembe *et al.,* 2009). The second type of power is strategic power, exercised based on individual or individuals' motives which might be in the form of economic ability to influence, rational and or ideological basis and sometimes manipulation to get others in line with the targeted motives. The third type of power is structural power which is exercised based on the established structures in the given institutions and relationship that exists in hierarchical form and is difficult to converse (Nuijten, 2005). Sometimes rules are set by actors with mandates, who usually use those powers to support their decisions and actions such as maintaining green systems. They use them to influence various decisions in favor of self or public interests (Goventa, 2005; Dowding, 2006).

Power and power relations are an evolving concept in the inquiry of urban green systems. Although power and power relations largely facilitate mediation in the access, use, and management of systems, they have not yet been extensively applied in the analysis of urban green systems (Berbés-Blázquez et al., 2016). This omission limits the ability of the ecosystem services approach to guide environmental decision-making that can deliver ecological sustainability and socially fair outcomes. The analysis of power relations to feed into the urban green systems assessments is clearly a complex undertaking that cannot be tackled through research activity organized along traditional disciplinary lines. Power and power relations that mediate the access, use and distribution of ecosystem services emerge from the interactions between social and ecological dimensions of complex social-ecological systems, an arena where transdisciplinary research, conducted in the frontiers of social and ecological sciences, is needed (Berbés-Blázquez et al., 2016, Scoones, 1999). As such, to properly address power issues in urban green systems assessments, transdisciplinary research ought to transcend beyond the mere bridging of disciplines, to a newish approach whereby science becomes a vehicle to increase engagement of stakeholders in decisions related to urban green systems (Reyers et al., 2010). This can be attributed to the growing multi-faceted urban challenges linked to urbanization under poverty. The urbanization under poverty creates social, economic and livelihood conditions that might require special lenses for analyzing actor's interests and needs associated with urban green systems.

3.0 Methodology

3.1 Methods

Having discussed the theoretical underpinnings of this study, this section focuses on providing a detailed description of the methodological paths undertaken to collect, process and analyze empirical

data. A qualitative case study design was employed as it allows for in-depth understanding of a complex governance of urban green systems of the Dar es Salaam City, while synergistically synchronizing the multiple actors' perspectives. The design is considered important as the urban green systems in this city is characterized by enormous pressures contributed in part by the unprecedented urbanization under poverty amidst multi-layered and multi-faceted actor's interests. The poverty conditions prevailing in Dar es Salaam City which adds a share of complexity to the governance of urban green systems as it adds the livelihood perspective in the equation of the governance of urban green systems. As such, the design nature of this study ought to allow for broad and in-depth understanding of the governance issues in selected urban green systems of Dar es Salaam City. Thus, the deployed case study design enabled for an in-depth exploration, analysis and understanding of the multiplicity of the actor's interest, the power and power relations amongst different actors in the urban green systems towards realizing sustainable cities.

In this case study design, the selection of study areas is critical as it has to reflect the material context of the studied phenomenon. As such, three wards i.e. Mbweni, Kijichi and Buyuni (Figure 1), in peri-urban Dar es Salaam were purposely selected for collecting empirical information for understanding various governance issues such as actors' needs and interests, power relations, decision-making, and presentation of urban green systems in environmental agendas. The selection of the three wards was prompted by the following reasoning. (i) They are areas with remnants of urban green systems in the rapidly urbanizing Dar es Salaam city. This provided a conducive environment for learning about urban green systems in the unprecedented urbanizing area. (ii) These areas are characterized by multiplicity of actors with multifaceted interests across varied urban governance structures. This presents a suitable environment for in-depth exploring and understanding of actor's interest in the maintenance of urban green systems. This also provides the environment for negotiating thereby forging how the multiple and multi-faceted interests of actors can be synchronized synergistically towards realizing sustainable cities. Qualitative data related to actor's interests, needs, power relations and provision of alternative projects were collected through in-depth interviews with selected key informants from national government actors, municipal level actors, and from community and conservation groups, consultation was done with local leaders and Focus Group Discussions (FGDs) to provide their views as per aforementioned aspects above. Six FGDs were conducted with concervation groups and selected community members. Households interviews were conducted to community members to get data on the alternative provision of projects and decision making ammong community level actors.

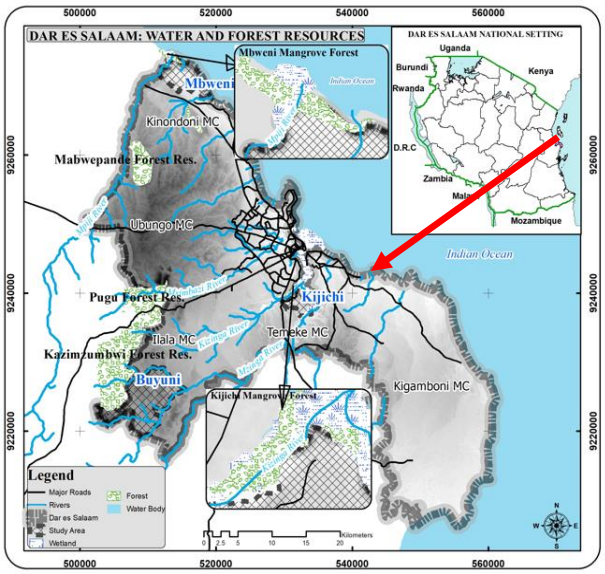

Figure 1: Location of the study area

3.2 Data analysis

The analysis started with the organization of the data collected from the field, generating themes and coding of data. The data in key themes relating to actors' needs and interests, power relations, decision-making in relation to the maintenance of urban green systems and presentation of urban green systems in urban environmental agenda were thoroughly examined, organized and reported. Finally, the data from different sources were triangulated to enhance validity. The information from the results were later synthesized and compared with other literature to support the finding of this study.

4.0 Results and Discussion

4.1 Actors in the Maintenance of Urban Green Systems

Actors in the maintenance of urban green systems are categorized into three typology including the national government level agencies, municipal council authorities, and community and conservation groups. The national government-level actors are Tanzania Forest Services (TFS) and National Environmental Management Council (NEMC). Municipal-level actors are Natural Resource officers, Town Planners and Councilors. The community-level actors are the households neighboring green systems, "Mtaa"[1] chairpersons, Mtaa natural resource committees, conservation groups. Indeed, actors from different government levels undertake various roles of which some are direct linked to maintenance of urban green systems such as protecting the system, while others are responsible for land use planning and development control and community-level actors are supposed to ensure security of the green systems and undertake friendly activities that cannot lead to degradation of the green systems. Urban green systems are characterized by multiplicity of actors with different roles and interests.

4.1.1 Actors' Interests and Needs in Urban Green Systems

The actors for urban green ecosystems have different interests and needs. Some actors had similar interests and needs while others had divergent interests (Figure 2). Protecting the green systems and generate revenue from cultural tourism was the main interests of the majority of actors except community level actors and town planners from the municipal level authority as are interested to convert urban green systems to settlements so as to provide residential and commercial plots and generate revenue from land rent and property tax. Similar interests and needs revealed among TFS from the national government level agency and natural resource officers from municipal authority as indicated in Figure 2. Divergent needs among government actors were driven by institutional objectives while the community need was mainly to meet well-being and enjoy belongingness. Similar and divergent needs among actors are not experienced only in Tanzania. Similar and divergent needs among actors on urban green systems are experienced in other countries for example in German (Haase et al., 2017), Ethiopia (Eshetu et al., 2021); and Bangladesh (Khan et al., 2020). Divergent interests commonly happen and sometimes influence the priorities regarding the maintenance of urban green systems. The divergent interests emerged because of varied objectives (Mensah et al., 2017) and priority in the maintenance of urban green systems (Peter and Yang, 2019). Priorities such as considering residential plots and other socio-economic services to meet the demands and well-being. Furthermore, the national and municipal level actors were interested in generating revenue because through revenue generated, they also get budget for implementing the activities related to their institution. In this view, each actor or group of actors is interested in investing in the activities that would enable them to generate revenue. The divergent interests might not lead to sustainability if no clear means for analyzing them and determine appropriate options to harmonize them. It has been argued that one cannot rely on maintaining urban green systems without considering the goods and services for the nearby communities (Haase et al., 2017). This is because when neighboring actors

[1] Mtaa is the lowest administrative level in Urban Local Authority in Tanzania

especially the local community's needs are not considered may continue encroaching on the green systems to get the needed ecosystem services.

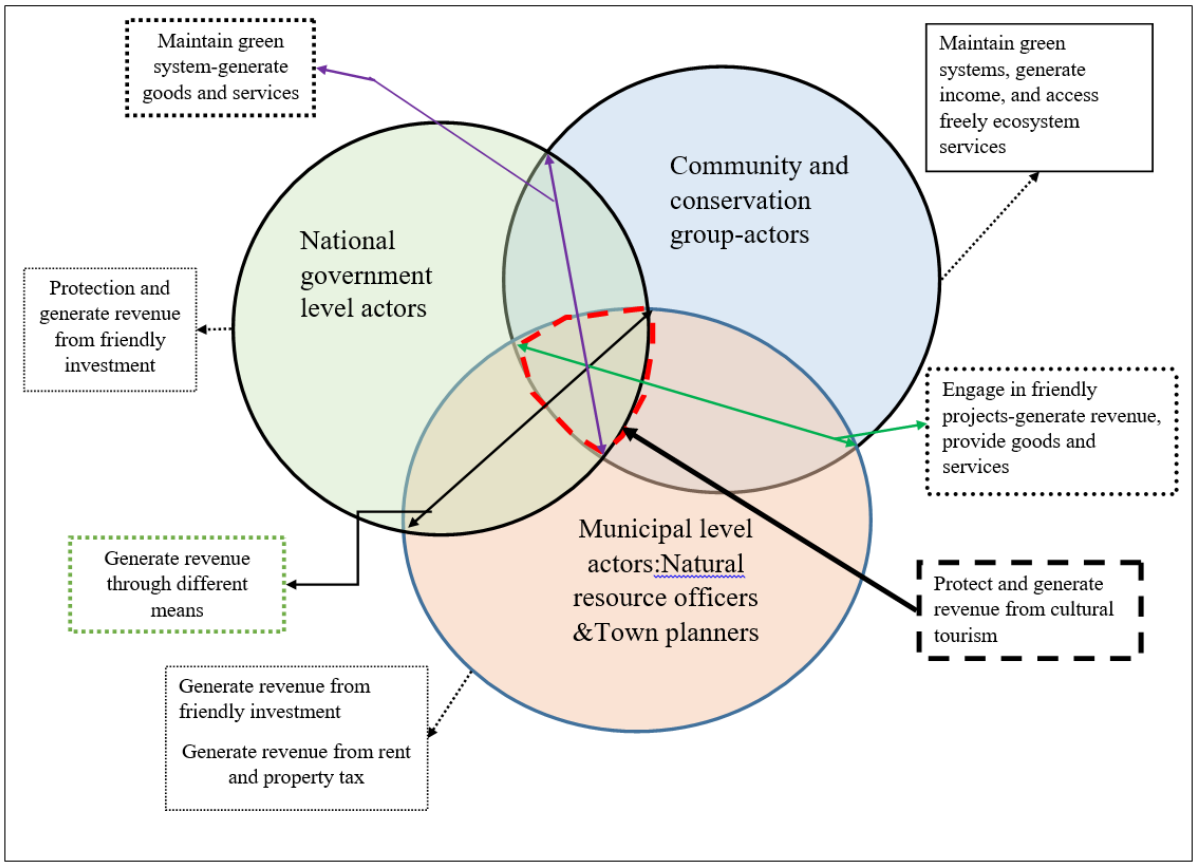

Figure 2: Actors interests in urban green systems (*Francis et al., 2022 forthcoming*)

4.1.2 Synchronization of Different Interests

There are varying and divergent interests among different actors interacting in urban green systems such as protecting and promoting green systems to generate revenue, Conversion of green systems to settlements, and access to ecosystem services to meet the livelihoods. The study affirmed that there were no mechanisms in place to synchronize the divergent interests and needs among actors. During data collection, there was no established project by the responsible government institutions to support community and conservation groups to meet their interests and need. Yet, there was no organized mechanisms for community and conservation groups to access goods and services. During the interviews with household respondents in Mbweni (24), Kijichi (26), and Buyuni (27) respectively, affirmed that there were no alternative means including beekeeping, poultry project, and seaweed farming established to meet their interests and needs (Figure 3). Respondents who said yes engaged in seaweed farming especially those from Mbweni and Kijichi while those in Buyuni involved in poultry activities.

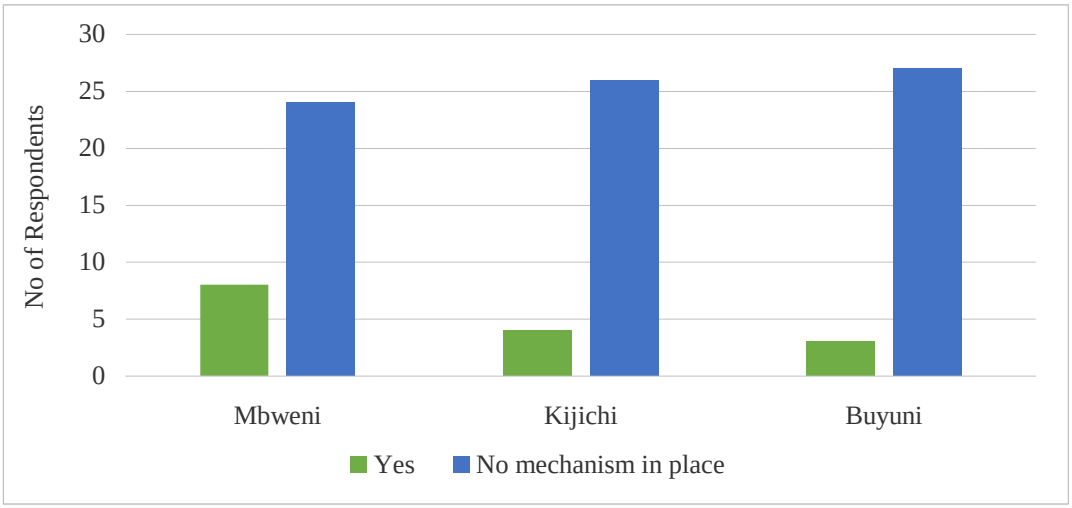

Figure 3: Presence of mechanisms for alternative provision of needs to communities surrounding urban green systems (*Source: generated based on field data for this study*)

According to Figure 3, less than ten of the respondent households from each of the case study areas affirmed that they were supposed to form conservation groups so as to be supported with projects by TFS which would enable them to meet their interests. The formation of conservation groups is in line with the Forest Policy, 1998 section 4 (3). For the conservation group to be recognized and be supported with the project by TFS it was required to develop a constitution and register their group, however, only one group from Kijichi out of six groups visited was registered. This study revealed that most of them could not fulfill the conditions required such as developing a constitution. According to the interview with conservation group representative from Mbweni and FGDs with conservation groups revealed that these groups have no adequate knowledge and skills to prepare constitution and also lack funds to hire a knowledgeable person to help them develop a constitution. Furthermore, one of the TFS said that they were supposed to support conservation groups but were faced with budget deficit for example in 2019/20 they requested 252Tshs million for maintenance activities from the government but only 150Tshs million was provided. The money provide was used for rehabilitation and administrative matters. The results of this study showed that the interests of the community-level actors were not achieved. Scholars in urban green systems argued that cities are likely to be sustained when green systems is maintained and diverse needs are accommodated (Hansen, 2018; UN-Habitat, 2018).

Protection of urban green systems is mainly focused on rescuing urban green systems from encroachment and degradation. Information from TFS and natural resource officers in Temeke, Ilala, and Kinondoni demonstrated that allowing communities access to ecosystem services without clear arrangement contributes to the degradation of green systems. Moreover, prohibiting neighbouring communities from relying on ecosystem services to improve their well-being is important but alternative means to improve their well-being are noteworthy. Likewise, urban planning departments including town planners from all study areas' interests and decision was to convert urban green systems to settlements so as to generate revenue. However, their interests would contribute to disappearance of vegetation cover. Mensah et al. (2017), pointed out that actors with power generally influence the maintenance of urban green systems based on their interests and decisions (O'Keefe et al., 2017; Reyers et al., 2010). Yet, this may not be a sustainable way of maintaining the urban green systems since those who are considered powerless actors may jeopardize the efforts put in by the powerful actors. As such, in that scenario the feasible mode of governing the urban green systems ought to be a participatory governance approach. Participatory natural resource governance is an ideal or rather a contemporary concept applied in governing resources in a social setting where there exist divergent interests and needs of actors. Yet, at

the heart of the participatory governance of natural resources in urban green systems lies the issues of power and power relations which is the focus of the next section of this article.

4.2 Power and Power Relations among Actors in Urban Green Systems

Actors had different power and also power relations that influenced the maintenance of urban green systems. Results from the reviews of regulations and consultation with national government level and municipal level actors demonstrated three types of powers exercised by the key actors interacting in urban green systems. The three possessed powers are institutional, strategic and structural powers. The government actors had institutional power exercised based on the existing laws and institutional structures to protect and promote urban green systems. The institutional power was exercised based on individuals or groups of actor's certain rights and mandates over others (Nuijten, 2005; Kajembe et al., 2016). TFS has the power to oversee the studied urban green systems. Sections 5 and 6 of the Forest Act, 2002, empower the TFS to maintain and protect green systems and make non-destructive investments, including cultural tourism (URT, 2002). Based on the power entrusted by the government, TFS utilizes both the institutional and strategic power to engage in non-destructive activities as one of the TFS officers said that the interest of national government actors is to maintain and promote friendly investment including cultural tourism and any other non-destructive investment. Both institutional and strategic power by TFS enables them to influence different types of non-destructive investment such as cultural tourism and beekeeping projects.

Moreover, the local government actors possess institutional and structural power as are entrusted to execute certain tasks based on their position towards promoting urban green systems. For example, section 59(b) of the Local Government Act (1982) and section 28(f) of the Urban Planning Act (2007) empower Town Planners to plan for different land uses including green corridors, parks, open spaces, urban forests and other land uses. In the same way, the two Acts give powers to Town Planners to plan and manage all public lands and control development of various land uses. Based on these laws, planning for different land uses and controlling development ensures that public areas, including green spaces, are not being infringed. The laws for example, Section 92 of the Local Government Act (1982) empowers Urban Planning Committees (UPCs) including the councilors to foresee development issues and to take part in decision-making related to development matters within their areas of jurisdiction including maintenance of green systems. Moreover, the Forest Act, of 2002 empower natural resource officers to protect and promote urban green systems and engage communities in supporting urban green systems by training them and supporting them to establish projects and maintain them.

However, actors from national and municipal level can use their mandates to influence decisions concerning the maintenance and presence of the green systems. Despite decision-making being a key aspect of governance of natural resources such as maintenance of urban green systems, it has been argued that wherever different actors from various institution with power interact, decision-making remain complex (Salbitano et al., 2016). Likewise, consultation with municipal-level actors and those from the government revealed that both national and local government actors with mandate can influence the decision-making and sometimes influence the decisions of the community level and conservation groups. For example, TFS as the custodian of the studied green systems decided to place beacons without consensus with community-level actors and some actors from municipal authorities especially the department of urban planning.

Community and conservation groups exercise structural and strategic power. Community level actors possess structural power because of their social position at the community level and cannot influence decisions compared to government actors who are characterized by institutional power. Conservation groups possess strategic power because they need to maintain urban green systems so as to engage in friendly projects such as beekeeping to meet their well-being. Furthermore, they are

characterized by structural power as are at lower level of decision making and cannot influence decisions as compared to national and municipal level actors. Reflecting the existing power relations, community-level actors are less powerful to influence decisions as a result their interests and concerns are less integrated into urban green systems. This is in line with the argument by Kicheleri et al. (2018) and Kajembe et al. (2016) who pointed out that institutional power affects the rights of actors including community-level actors in decisions that reflect their needs and interests.

Furthermore, the National Environmental Management Act (2004) advocates for sustainable environmental management without compromising present and future use. To enhance sustainability, the Act recognizes the establishment of environmental committees to support the maintenance of ecological resources [Section 11(1)] of the Act. On the other hand, the Tanzania Forest Act (2002) section 11(3) (g) recognizes the role of communities in enhancing proper use and security of the green systems. In order to strengthen the communities in supporting maintenance of green systems including urban forests, the Forest Policy, 1998 section 4 (3) encourages the formation of conservation groups and registers as an incentive to undertake maintenance activities such as beekeeping projects. However, during data collection, only one group was registered because the group managed to fulfill the required condition of developing the constitution. Based on the key informant's interviews and FGDs with conservation groups revealed that these groups have no adequate knowledge and skills to prepare constitution and lack funds to hire a knowledgeable person to help them develop such constitution.

The study further assessed how neigbouring communities are taking part in decisions concerning access to ecosystem services and maintenance of urban green systems arrangement. Results indicated inadequate engagement of communities in the maintenance of urban green systems decision-making. Findings demonstrated that majority of the respondents in Mbweni (23), Buyuni (24), and Kijichi (22) respectively claimed that they were not engaged in decision-making on maintenance arrangements by either the national level authority including TFS or the municipal level authorities including natural resource officers. In contrast, most of the respondents in Mbweni (21), Buyuni (27), and Kijichi (17) respectively, were not engaged in decision-making on access and use of the ecosystem services (Table 1).

Table 1: Community response concerning decisions in maintenance of the green systems

Decision-making	Mbweni (N=32)		Buyuni (N=30)		Kijichi (N=30)	
	Yes	No	Yes	No	Yes	No
Decisions on maintenance arrangements	9	23	6	24	8	22
Decisions on access to and use of the ecosystem services	11	21	3	27	13	17
Decisions on the use of the revenue collected	3	29	0	30	3	27

Source: Field data, 2021

Findings indicated that although communities are interested in maintaining urban green systems but are not participating in decisions. Inadequate engagement of community-level and conservation groups in decision-making is attributed to the power relations among actors. Moreover, actors with legitimate power execute their assigned roles and tasks based on the respective laws as explained earlier and empower them to make the decision. The results of this study reflect the work by Colding et al. (2020); Goventa (2005); Dowding (2006) who argued that sometimes actors with mandates can make decisions that influence others in relation to urban green systems. Authors in urban green systems indicated that lack of inclusion of community-level actors in decision-making can result to negative consequences of representing their interests (Haase et al., 2017; Kronenberg et al., 2021; Khan et al., 2020; Toxopeus et al., 2020). The inclusion of actors in decision-making is important as it contributes to

governing green systems on one hand. On the other hand, it helps to determine the needs and interests of various actors.

4.3 Inclusion of Urban Green Systems in Urban Environmental Agendas

Urban green systems can be influenced positively in urban environmental agenda, because when issues related to the maintenance are discussed in the meetings increases the chance of consideration in urban development matters. The Local Government Act, 1982 and the consultation with municipal level authorities showed that full council meetings and Ward Development Committees are conducted quarterly, represented by various actors from both politicians and professionals from various departments and units in the respective authority. According to the consultation with the municipal level actors including councilors, community members are allowed to attend the meeting, however, they do not show up because they are not enforced to do so and therefore they engage in other businesses rather than attending the meeting. The councilors from Mbweni and Buyuni wards affirmed that maintenance of urban green systems is rarely included in the discussion and decisions (Table 2). As one of the councilors demonstrated that "*they usually discuss important issues like education, health, market, open spaces, revenue collection and waste management that touch directly on people's everyday lives*"; urban green systems issues are occasionally brought into the discussion when there is a problem linked to conflict or encroachment. Consultation with Town Planners from Kinondoni and Ilala demonstrated that urban forests are not much discussed in the meeting because they usually lead to misunderstandings between experts and politicians due to opposed attitudes towards them as politicians prefer residential plots to urban forests because they consider it to be hideout areas for criminals while experts consider the urban forest as advantageous to the urban ecosystem.

Table 2: Meeting carried out at different level

Meeting	Time	Participants	Discussed issues
Full council meeting	Quarterly	Politicians, LGA staff, and invited government and non-government actors.	Matters pertaining to information on the development projects, revenue collection and expenditure, health, education, waste management, infrastructure rehabilitation and services were commonly discussed in Temeke, Kinondoni and Ilala municipalities. However, urban forests are rarely discussed.
Ward Development Committees	Quarterly	Politicians, LGA staff and other invited stakeholders.	Environment and the cleanness of the surroundings, Revenue collection and development projects (education and health) and rehabilitation of infrastructure were commonly discussed in Kijichi, Mbweni and Buyuni wards. The effect of encroachment of mangroves and scarcity of fish emerged in Mbweni ward.
Mtaa-level meeting	After every two months	Chairpersons and community members	No meeting was conducted in the previous six months as per interviewed Mtaa chairpersons

Source: Ilala, Temeke, Kinondoni municipal council and Mbweni, Kijichi and Buyuni ward offices, 2022

Decisions of various actors including communities and those from government levels are essential and can be integrated into different urban agendas. Urban green systems are less considered in decision processes including decision-making levels such as meetings conducted from full councils, Ward and Mtaa levels (Table 2). In the consultation with municipal-level actors; councilors, town planners and natural resource officers demonstrated that issues related to maintenance of urban forests are rarely

discussed in urban agendas. This is due to divergent and subjective understanding of the issue related to maintenance of urban green systems which leads to lack of consensus and common understanding among actors with institutional and structural power. According to Salbitano et al. (2016), the integration of urban green systems in decision-making processes can enable various actors to provide their views concerning maintenance and is likely to increase the recognition of their availability in urban areas. Moreover, the meetings at the Mtaa level were not carried out because it was during the Covid19.

Conclusion and Recommendations

This paper has demonstrated actors' interests, needs and power relations in the maintenance of urban green systems in Dar es Salaam City. Maintenance of urban green systems is characterized by various actors with different types of power, similarities and divergent needs. The various type of powers possessed by actors especially those in government institutions influence decision-making which affect the needs of community-level actors who possess structural power. In this case, community-level actors usually receive orders from national and municipal level authorities which lessen their influence in decision making. Moreover, urban green systems are less presented in urban forums where most of the decisions on development matters are discussed, which would give them chance to influence their interest and needs. The underrepresentation of urban green systems in urban agendas undermines its support from community-level actors thus affecting sharing of information on the potential contribution of urban ecosystem services emanating from the green systems. Integration of urban green systems into the urban agendas is necessary to enable actors to share their views and provide alternative mechanisms to meet various needs (Salbitano et al., 2016).

Based on the results, this study offers the following recommendations: There is a need to link and coordinate the roles of various actors interacting in urban green systems. On the other hand, it is important to understand the goals and interests of each institution, and how they may influence each other in supporting the maintenance of green systems. Furthermore, different and multifaceted actor's interests and needs must be acknowledged by actors interacting in the urban green system and be mainstreamed in various levels of decision making so as to establish non-destructive activities. Therefore, the study underscores the need for non-destructive projects such as cultural tourism, hotels and lodges, beekeeping, seaweed farming, and horticultural activities which have less impact on the green system. Additionally, there is a need to train community-level actors on how to undertake non-destructive activities so as to meet their livelihoods besides supporting urban green systems. The aforementioned projects would increase revenue to the government and income to community-level actors.

The governance of urban green systems requires support from government and non-government actors through participatory decision-making at different levels (Buijs et al., 2016; Mensah et al., 2017). Participation in decision-making among actors is important to be instigated by both government and community-level actors so as to make decisions that reflect their interests while supporting the maintenance of urban green systems. Thus policies and laws need to be revised to as to strengthen the community-level organs like the "Mtaa" Natural Resource Committee and Ward Development Committees in decision making regarding maintenance of urban green systems. Moreover, engaging both government and community-level actors in decisions would encourage them in the enforcement of laws related to maintenance of urban green systems. The community levels actors need to be encouraged by government-level authorities to share their interests and needs at different levels of decision making such as in the general meeting at the level, in the Ward Development Committees, and in the Full Council meeting, this would enable them to support urban green systems, interacting in decision making and influencing their interests.

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