Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/22832
DOI URL: http://dx.doi.org/10.21474/IJAR01/22832

RESEARCH ARTICLE

CONTESTED GROUNDS: NAVIGATING ENVIRONMENTAL VS SOCIAL AND INSTITUTIONAL CONFLICTS IN UP DILIMAN ARBORETUM

P. Pagana[1], J. Desuasido[1], R. Rodil[1] and O. Sicam[2]

1. Graduate Student, College of Architecture, University of the Philippines- Diliman.
2. Assistant Professor, College of Architecture, University of the Philippines- Diliman.

Manuscript Info

Manuscript History
Received: 14 December 2025
Final Accepted: 16 January 2026
Published: February 2026

Key words:-
Arboretum, Contested Spaces, Environment, Stakeholders, UP Diliman.

Abstract

The UP Diliman Arboretum represents a contested urban landscape where nature protection, social justice, and institutional development intersect, resulting in conflicts among conservation priorities, communi tysettlement, and governance. The present study considers the roles of stakeholders, including the UP administration, arboretum community, academic institutions, and environmental supporters, using a power-interest matrix to demonstrate how authority, negotiation, and daily practices influence land use and community dynamics. As both a protected green space and a site of long-term habitation facing development pressures, the Arboretum exemplifies persistent and evolving tensions rooted in shifting values and priorities, often to the detriment of the environment, which cannot speak for itself. Ultimately, this case illustrates how contested ecologies mirror broader struggles over environment, equity, and development, with outcomes determined by the collaboration of different outlooks and actions.

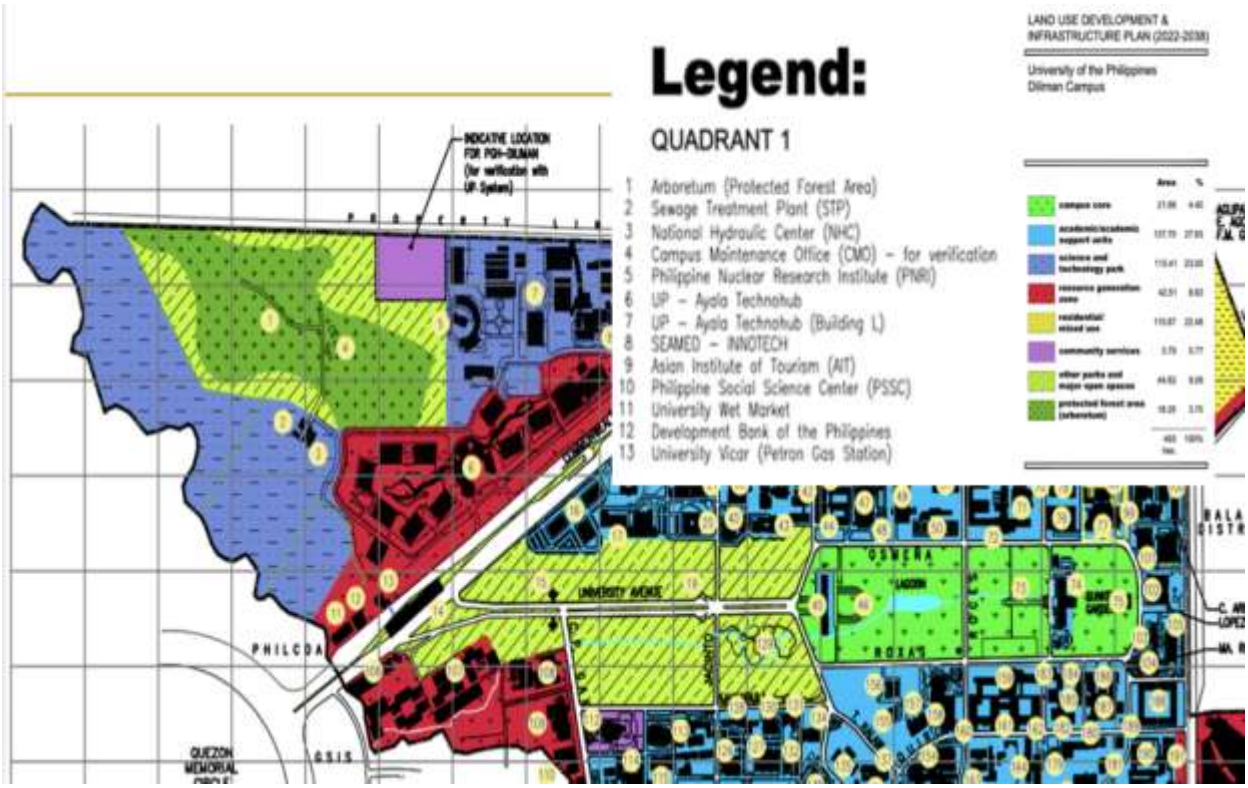
Introduction:-

Contested spaces arise where competing interests intersect, transforming physical environments into arenas for struggle, negotiation, and the construction of meaning (Aulich & Dawson, 2007). Reyes (2016) characterizes these spaces as sites of power relations, where dominant groups attempt to assert control or establish boundaries, while marginalized communities resist, reclaim, or reshape them. These spaces inherently may embody multiple, even contradictory interpretations (Jansson, 2018). Such spaces are dynamic, continually reshaped through contestation as norms, identities, and boundaries are challenged and redefined. The outcomes of these struggles are often tangible, resulting in community displacement, ecological degradation, or changes in urban policy. The University of the Philippines (UP) Arboretum in Diliman serves as a prominent example of a contested urban space. Covering approximately 18 hectares along Central Avenue at the campus's northern edge, it is bordered by the Philippine Nuclear Research Institute (PNRI) to the east, Pael subdivision to the southwest, a sewage treatment plant, and the Ayala TechnoHub to the south (Dovey & Recio, 2024). Established in 1948 on land acquired by the Philippine Commonwealth government in 1938, the Arboretum initially functioned as a forest nursery before its transfer to UP and subsequent administration by UP Diliman in 1962. The site's layered history traces back to Jesuit estates during the Spanish colonial period, later acquired by the Tuason family in the nineteenth century, and ultimately

Corresponding Author:-P. Pagana
Address:-Graduate Student, College of Architecture, University of the Philippines- Diliman.

incorporated into the UP campus extension (University of the PhilippinesDiliman, 2021).Currently, the Arboretum serves as both an ecologically significant site and informal settlement, and is occasionally used for academic purposes. The 2015 census reported approximately 3,500 residents (Philippine Statistics Authority, 2023), while a United Nations Development Programme (UNDP) study identified 550 informal settler families (ISFs), totaling 2,079 residents (United Nations Development Programme, n.d.). In October 2020, the UP Board of Regents reclassified 9.5 of the Arboretum's 18 hectares from "protected forest area" to "academic support zone/open space." This reclassification facilitated proposals to construct the UP Philippine General Hospital in Diliman (Figure 1), resettle displaced residents, and develop retail spaces along Central Avenue (The University of the Philippines Gazette, 2020).

Despite ongoing development initiatives, the Arboretum remains recognized as a biodiverse urban forest and has been the focus of petitions and opposition from environmental and community groups. It contains approximately 77 of the 192 plant species found at the University, representing 9,298 of the institution's total 38,569 (Abiding et al., 2003). Consequently, the Arboretum exemplifies the tensions among environmental conservation, urban development, and social displacement. The management of an ecologically significant site that also supports a resident community necessitates the involvement of multiple stakeholders (International Model Forest Network, 2025). Landowners hold legal authority, existing communities interact with and benefit from the site, and site maintenance personnel are responsible for conservation and taking care of it (DENR Administrative Order No. 2004- 32, 2004). When the site is formally designated as protected, environmental advocates and conservation organizations play a critical role in ensuring biodiversity preservation and alignment with broader sustainability objectives. Effective collaboration among these groups is essential to balance ecological protection with community needs, thereby fostering both resilience and social value.



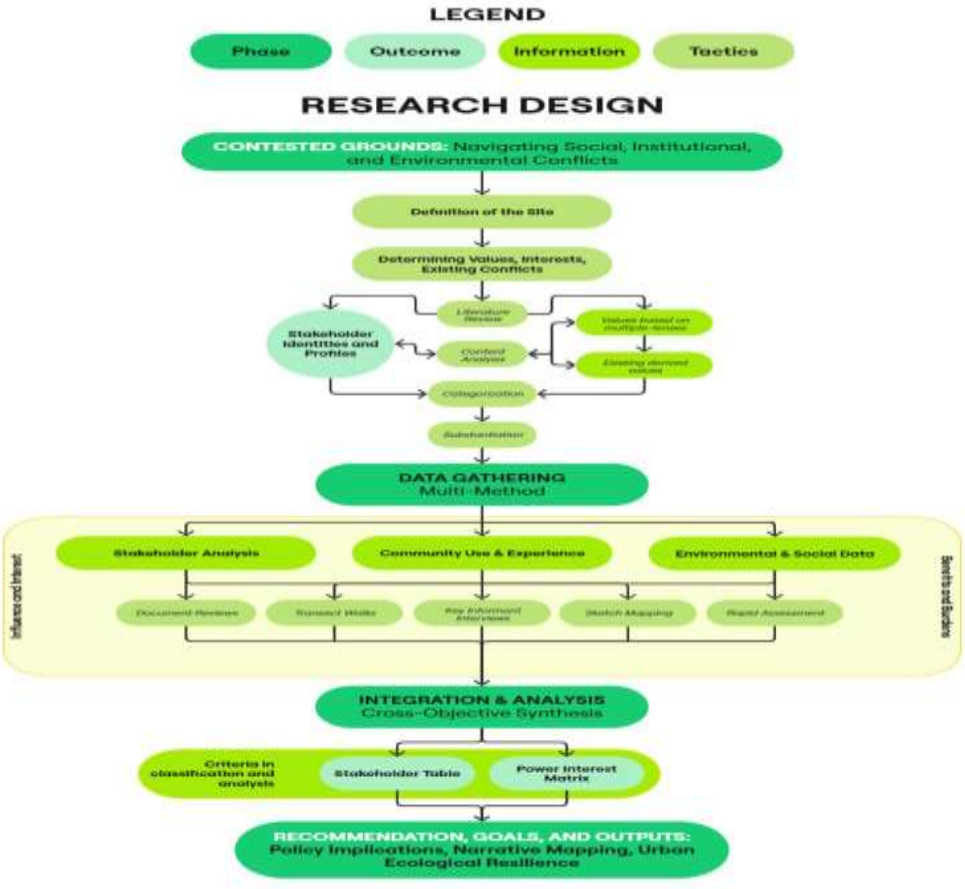
A comprehensive understanding of the Arboretum requires recognizing its diverse and interconnected values. Ecologically, the Arboretum sustains biodiversity, maintains habitat connectivity, stores carbon, and regulates urban climate and pollution. In addition to these ecological functions, it provides key necessities for marginalized households, including shelter, food, and livelihoods, which support its purpose as a provider. Its social and cultural meaning is shown by opportunities for recreation, heritage preservation, and contributions to social health. However,

market forces increasingly position the land as a financial asset, often to justify redevelopment. These overlapping values highlight the reciprocal relationship between place attachment and place identity, in which emotional bonds and self-concept influence stewardship behaviors and strengthen contested claims to space (Maricchiolo et al., 2021).This interconnection of values is further demonstrated by the Arboretum's spatial intricacy. The site serves simultaneously as a location for academic research and laboratory work, a protected green space, a settlement for informal communities, and an institutional property facing development pressures. For decades, these overlapping roles have generated conflicts among settlers, environmentalists, and the UP administration, indicating broader struggles over conservation, social justice, and modernization. Thus, the Arboretum represents more than a physical landscape; it functions as a microcosm of contested urban spaces, embodying the tensions and negotiations that shape the city's transforming identity.

In light of these intersecting conflicts, this study asks: How do spatial tensions within the UP Diliman Arboretum dictate the distribution of socio-environmental benefits and burdens among its institutional, environmental, and community stakeholders? By treating the Arboretum as a manifestation of contested urban space, this study aims to: (1) identify the key stakeholders and their intersectional power dynamics; (2) examine how the benefits and burdens of spatial tensions are distributed among these actors; and (3) analyze the resulting socio-environmental implications for the site's ecological future. Addressing these questions is particularly urgent given that existing governance frameworks have yet to formally reconcile the competing claims of ecological preservation, informal settlement, and institutional development within the site. The Arboretum serves as a lens through which broader struggles over urban green space governance in rapidly urbanizing cities in the Global South can be critically examined.

Methodology:-

This study employs a qualitative research methodology characterized by a structured and sequential process(Figure 2). The process begins with defining the scope and stakeholders based on the time that the Arboretum was declared a protected landscape up to the present, proceeds to data collection, integrates and analyzes findings, and concludes with the formulation of recommendations. This approach ensures that the research remains comprehensive, inclusive, and firmly grounded in qualitative evidence.



The initial phase centers on research design, during which the site is delineated by its geographical and conceptual boundaries. This process establishes the study's parameters and clarifies the specific area of concern. Concurrently, the values, interests, and existing conflicts within the site are identified to highlight the main concerns for various groups. Stakeholders, including individuals, institutions, and community organizations, are identified and profiled. These actors are categorized into groups such as government agencies, non-governmental organizations (NGOs), and residents, advancing a structured understanding of their roles and perspectives. The second phase entails data collection through a multi-method approach. Stakeholder analysis is performed by reviewing documents, policies, and organizational networks to ascertain institutional positions and relationships. Community use and experience of the site are documented using participatory methods such as key informant interviews, sketch mapping, and mobile mapping, which elucidate patterns of interaction and perception. Environmental and social data are also gathered, including ecological inventories, physical assessments, and analyses of social exclusion and vulnerability. Collectively, these data streams provide a comprehensive understanding of the site's dynamics.

The third phase concentrates on integration and analysis, during which findings from the various data streams are synthesized. Power and Interest criteria for both visual and non-visual analysis are established to assess tangible and intangible aspects of the site (Table 1). Structured tools, including a stakeholder matrix, are utilized to examine stakeholder connections and the distribution of positive and negative impacts. A central analytical framework in this phase is the Power-Interest Matrix, also referred to as Mendelow's Matrix. Developed by management professor Aubrey L. Mendelow in 1991 and informed by R. Edward Freeman's stakeholder theory, this tool categorizes stakeholders according to their level of power (capacity to influence) and interest (degree of involvement in the project or organization). The matrix is organized as a grid, with power ranging from low to high on one axis and interest on the other, resulting in four quadrants (Figure 3). Stakeholders with high power and high interest are placed in Q1 and demand thorough engagement as key influencers. Those with high power but low interest should be in Q2, with their needs fulfilled without excessive engagement. Stakeholders with low power but high interest are best in Q3 as they may offer important feedback despite limited influence. Finally, those with low power and low interest require only Q4 and should be monitored but not prioritized. This system informs the synthesis of stakeholder forces and guides participation approaches.

Table 1. Power and Interest Rating Criteria

	Power	**Interest**
Low	Limited resources Minimal access to decision-makers Influence restricted to small-scale advocacy or community-level action	Peripheral involvement No direct livelihood or institutional dependency Passive stance; concern only when directly affected
Moderate	Some organizational capacity Ability to mobilize public opinion or media attention Can negotiate but not dominate decision-making	Regular users or advocates Environmental or cultural value recognized Active but not existentially dependent
High	Formal authority Significant financial or legal resources Direct control over land use, policy enforcement, or institutional decisions	Direct livelihood, identity, or institutional stake Strong emotional, cultural, or economic attachment Persistent engagement in advocacy, negotiation, or resistance

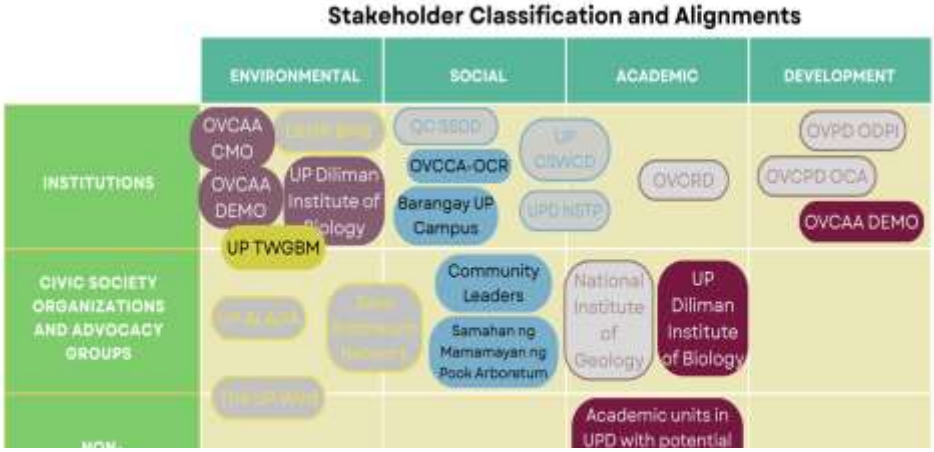
The final phase translates the analysis into recommendations, goals, and outputs. Policy implications are identified to propose changes in rules, regulations, or management systems that address the issues uncovered. Narrative mapping is employed to convey the site's story, integrating its conflicts, opportunities, and possible future paths. Recommendations prioritize urban ecosystem adaptability by proposing approaches to improve the site's capacity to adapt to change and withstand social and natural pressures. This method ensures that the study's outputs are evidence-based, context-sensitive, and actionable, providing meaningful guidance for both policy and practice.

Findings and Discussion:-

The contested nature of the UP Diliman Arboretum is best understood through the interplay of stakeholder power, spatial distribution, and socio-environmental consequences. Accordingly, this section first evaluates the power dynamics of the various actors involved in the site's governance. These institutional and social realities are then mapped onto the physical landscape through transect walks and spatial analysis to identify who gains or loses within the current land-use framework. Collectively, these findings provide a basis for analyzing the long-term implications of these tensions on the site's ecological integrity.

Stakeholder Mapping:-

A comprehensive stakeholder mapping was conducted for the Arboretum to identify the various groups associated with the site and its future development (Figure 4). Stakeholders were categorized based on their primary spheres of influence and engagement since the Arboretum was established as a protected landscape. Environmental stakeholders were identified for their involvement in conservation, biodiversity management, and ecological stewardship. Social stakeholders comprised the surrounding communities whose daily lives, cultural practices, and sense of attachment are closely linked to the arboretum. Academic stakeholders included faculty, researchers, and students who used the site as a living laboratory and educational resource. Institutional stakeholders were defined as the decision-makers and governance bodies responsible for the arboretum's policy, administration, and long-term planning.



This multidimensional approach ensured that the mapping addressed not only the ecological and scientific aspects of the arboretum but also the social and institutional contexts that influence its use and protection. Categorizing stakeholders in this manner offers a clearer understanding of their relationships and responsibilities, as well as the potential for collaboration that supports the arboretum as both a natural refuge and a shared academic-community resource, although such collaboration is beyond the scope of this study.

Key Informant Interview:-

The UP Arboretum appears as a deeply contested site where generational stewardship, institutional planning, and nature preservation exist in constant tension. The community narrative, articulated by the Samahan ng Mamamayan ng Pook Arboretum (SMPA), asserts moral legitimacy based on a timeline of residency dating back to 1962. Central to this story is the role of these residents—many of whom are descendants of previous university employees—as de facto foresters whose historical labor in planting and maintenance is fundamentally responsible for the area's current ecological state. The formalization of SMPA in 2010 served as a critical survival mechanism in response to the threats posed by proposed institutional developments within the Arboretum.

Institutional governance of the Arboretum is anchored in a legalistic framework that is less a matter of straightforward administrative management and more a complex mediation between the university's legal sovereignty, anchored in its century-old land title (OCT), and the firmly established human narratives of its occupants. The Office of Community Relations (OCR) manages this tension through a census-based validation mechanism, using archival records from 1992, 2001, 2011, and 2015 to establish the formal basis for relocation and resettlement planning. This system operates as a deliberate counter-agreement to summary demolition, delivering an organized pathway for residents who meet the university's established eligibility criteria to be included in future housing developments.

Within this negotiated framework, the university prioritizes "original" families or recognized owners who appear in the historical census records. While this approach grants a measure of security and a relocation guarantee for those validated by the OCR, it simultaneously creates an eligibility distinction that affects the wider community. Residents categorized as "4-1-7-0s"—primarily renters and sharers who arrived after the specified census periods—remain outside the primary scope of these formal housing negotiations. Consequently, while the census serves as a protective measure against immediate displacement for some, it also functions as a regulatory boundary that determines who is integrated into the university's long-term infrastructure and relocation plans.

Spatial governance under the 2020 Land Use Development and Infrastructure Plan (LUDIP) defines "protected" status solely by canopy density, reclassifying inhabited zones through the "Abuloy" (Contribution) system. This fiscal arrangement serves as an institutional middle ground; by collecting voluntary fees rather than formal rent, the university acknowledges the community's permanence so as to avoid the legal difficulties of tenancy. Within this system, the Self-Build Unit Regulatory Committee (SBURC) is tasked with monitoring and approving minor construction—specifically repairs and renovations—to prevent further forest encroachment. However, the natural obstacle of overseeing such a porous landscape has led to considerable environmental degradation. Blocked waterways and silted streams now cause frequent flooding in low-lying sectors, while trash accumulation and slope erosion remain outside the reach of institutional oversight.

Adding to these formal structures is a vital layer of grassroots spatial governance. Drawing on their identity as "forest rangers", residents fill management gaps through direct interventions, such as installing makeshift barricades to prevent unauthorized parking. By shielding saplings from soil compaction and vehicle damage, the community asserts a direct, lived stewardship that often proves more responsive than top-down monitoring. This result points to a fundamental tension: while the university governs the Arboretum through legal decree and fiscal compromise, the community sustains its habitat's future through a sustained, custodial presence.

From the perspective of academic and biodiversity stakeholders, the Arboretum is characterized as a deteriorating laboratory, a condition directly attributed to the 2020 LUDIP policy shift. This plan reclassified the site from a "Protected Forest Area" to an "Academic Support Zone" to facilitate large-scale projects like the Philippine General Hospital (PGH)-Diliman, a transition enacted without consultation with biodiversity experts. This institutional change has replaced the once-accessible "living laboratory" with physical barriers and prohibitive permit requirements, alienating the very faculty and students it is meant to serve.

Furthermore, as the Quezon City LGU acts as a silent beneficiary—outsourcing its social housing obligations to university land—the Arboretum encounters increasing ecosystem strains from invasive and unregulated species that hinder natural regeneration. Ultimately, the absence of an integrated management plan and a formal assessment of human carrying capacity leaves the Arboretum's ecological and research future increasingly precarious.

Document Review:-

The research findings indicate that the University of the Philippines' master development planning should be grounded in environmentally sustainable and risk-sensitive design principles. This approach ensures that infrastructure and landscapes remain resilient, ecologically balanced, and responsive to community needs. A central principle is the protection and enhancement of wildlife, particularly within designated protected zones such as the UP Arboretum. Although the Arboretum's designation as a natural urban space was lifted in 2020 to accommodate the PGH project, biodiversity conservation remains a priority, as reinforced by the Biodiversity Management Handbook (University of the Philippines Diliman, 2020), which provides guidelines for managing protected areas and open spaces. The findings also present the importance of social responsibility, requiring sensitivity to national and community needs, including the relocation of informal settlements in accordance with the university's Land Use Plan to prevent marginalization. The planning process should be consultative, grounded in a shared vision and a development framework developed with key stakeholders to ensure inclusivity and institutional identity. Land use guidelines emphasize the preservation of non-build zones, which must remain undeveloped to serve as ecological and social buffers, with adjacent building layouts designed to frame rather than obstruct open spaces. In summary, campus development should integrate strategies to preserve and enhance natural ecosystems, maintain harmony between built environments and landscapes, and establish the university as a model of ecological stewardship and socially responsible growth.

Physical and Boundary Maps:-

Land-use classifications further complicate the Arboretum's future. The 2016 Land Use and Zoning Map prepared by the Local Government Unit (LGU) placed the Arboretum within the Parks and Recreation Zone. However, on October 29, 2020, the UP Board of Regents reclassified 9.5 hectares of the Arboretum's total 18.25 hectares from "protected forest area" to "academic support zone". Of this reclassified land, 4.2 hectares were designated for the proposed Philippine General Hospital (PGH) Diliman Complex, while the remainder was allocated for the expansion of commercialized UP-Technohub establishments under a public-private partnership framework(Figure 5). This reclassification, which proceeded despite significant opposition, raises pressing concerns about the long-term sustainability of the Arboretum as a natural forest reserve.

Further analysis reveals inconsistencies in the documented size of the Arboretum. The 2012 UP Land Use Plan reported the area as 18.25 hectares, while the 2016 Quezon City Zoning Ordinance recorded only 16 hectares. Earlier planning documents, including the 1994 UP Land Use Plan, also cited 16 hectares. These discrepancies highlight the urgent need for UP to consolidate and verify supporting documents to establish the Arboretum's definitive boundaries, as current maps fail to clearly resolve its actual extent.According to the study of Dovey and Recio (2024), the UP Arboretum settlement can be divided into four distinct clusters. Settlement in the Arboretum began in the 1960s and has expanded steadily over the past two decades. In an effort to curb further encroachment, a chain-link fence was installed around portions of the area (Figure 6).

The first cluster is the primary settlement, characterized by low to medium-density housing of poor durability and highly informal infrastructure. Situated on low-lying land, parts of this area are prone to flooding. An open basketball court has also been constructed within this cluster.The second cluster lies along the northern edge of Central Avenue, where tricycle terminals are concentrated. This strip also hosts small shops and makeshift structures, including ladders.The third cluster resembles the second in form but incorporates semi-formal university staff housing. These residences are enclosed within larger compounds, featuring fences, parking spaces, and gated access. This cluster has been identified as a potential site for displacement due to the proposed hospital project. Although clearing activities had begun, as of June 2023, no agreement had been finalized between the University of the Philippines and the Quezon City government, leaving the hospital plan unimplemented.The fourth cluster, located in the southeast, consists of a small, low-density encampment with notable informal agricultural activity.

Transect Walk:-

Findings from the transect walk highlight a fractured landscape characterized by contrasting socio-environmental states. The initial path was adjusted based on constraints and input from the OCR and a community representative to ensure the inclusion of high-value sites: natural water springs, the relocation housing area, and informal agricultural plots. These plots, including vegetable gardens, though introduced into the natural landscape, are primary indicators of settlement, reflecting how the community has modified the environment to support their daily needs. Such landmarks are central to understanding the current state and the precarious future of the Arboretum (Figure 7).

community—a visible marker of land dispute separating maintained university spaces from the precarious living conditions within the Arboretum. In these zones, researchers identified significant environmental degradation within forested patches and water bodies, noting a jarring transition where introduced landscaping encroaches upon the natural landscape. This ecological strain is further compounded by the prevalence of informal structures and a lack of formal infrastructure, which stand in direct contrast to the nearby relocation site and continue to constrain the community's daily life.

With this walk, a transect map was developed that reflects the documented spatial dialogues. By superimposing the traversed path onto the site map, this visual tool illustrates the complex relationship between the area's physical geography and its socio-spatial conditions. This provides a bird's-eye view of how the traversed route(Figure 8) intersects with the natural landscape, contested boundaries, and various community interventions.This transect walk facilitated a series of dialogues with community members, whose active contribution of narratives and local knowledge allowed the researchers to identify critical environmental features that directly support the research objectives. Through this process, the research team synthesized local knowledge with scientific observation, as community perspectives provided refined insights into seasonal changes, resource use, and historical landscape shifts that might not be readily apparent through observation alone. Consequently, the transect walk served as both a technical tool for spatial analysis and a cooperative model that validated and enriched the research findings. This collaborative approach not only strengthened trust between researchers and residents but also supported a framework for inclusive development and sustainable landscape management within the Arboretum.

realities, and administrative objectives intersect, commonly causing tension. Observations throughout the Arboretum show clear forms of spatial conflict: forest edges are encroached upon by informal settlements, pathways and clearings are altered by human movement, and institutional boundaries are reinforced through fencing and signage that restrict access. These spatial dynamics illustrate the ongoing issue of harmonizing ecosystem health with social and institutional demands. The Arboretum operates as both a biodiversity refuge and a critical green space for Metro Manila, underscoring its environmental significance. At the same time, it provides livelihood opportunities for excluded communities and represents a potential site for university expansion, representing larger socio-economic and institutional pressures. The interaction of these competing interests results in observable environmental consequences, such as habitat fragmentation, reduced ecological corridors, and increased human disturbance. This contested landscape serves as an example of the continual negotiation among environmental objectives, social justice considerations, and institutional imperatives, positioning the Arboretum as a representative case of urban ecological conflict in the Philippines. These observations confirm the need for integrative governance and participatory approaches that coordinate ecological sustainability with human and institutional needs, ensuring that the Arboretum remains both a center of biodiversity and a model for addressing the challenges of urban environmental management.

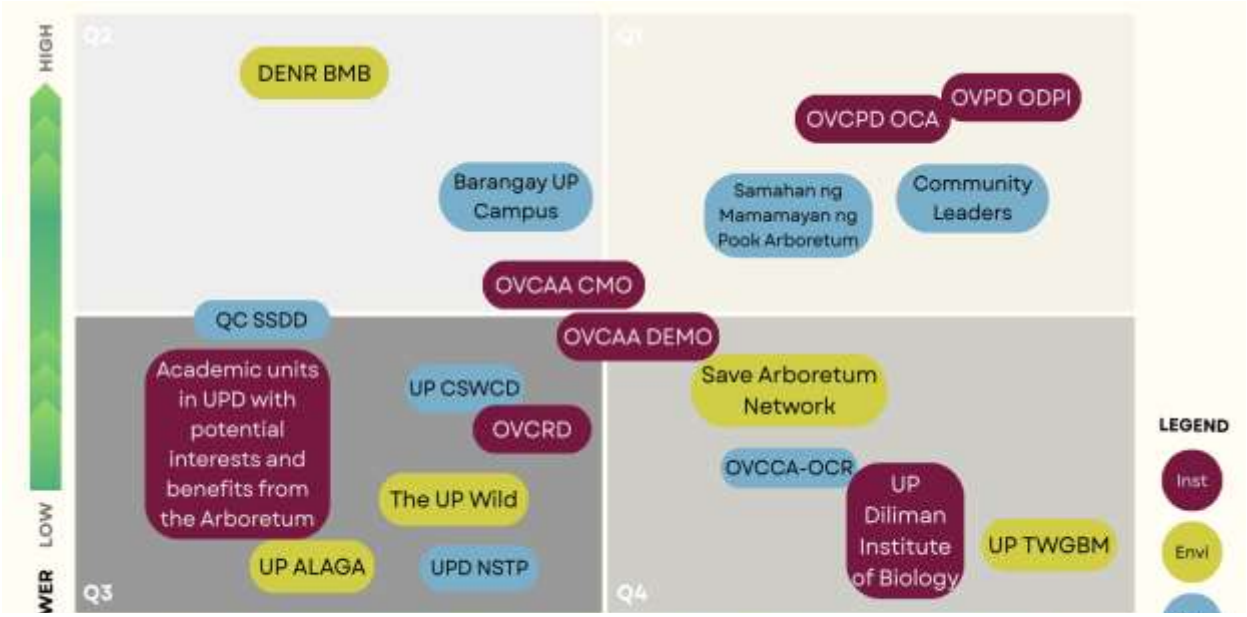
Power-Interest Matrix:-

Power functions as a catalyst for change. It operates autonomously when it generates the transformations in which it participates, but it is also constrained when competing forms of power influence those transformations. Thus, power is not inherently productive; rather, it emerges through confrontation and interaction with other powers (Berndtson, 1970). In this study, power is analyzed through observable actions and material expressions of intent, specifically acts that seek to enforce or resist change within the Arboretum. While such expressions do not always result in tangible outcomes, they remain significant as long as they are perceived, experienced, and invoked by stakeholders who participate in these power relations.

Participation in these dynamics necessarily introduces the coexisting factor of interest. Benditt (1975) distinguishes between subjective interests, which include feelings, attitudes, shared orientations, claims, demands, and wants, and objective interests, which are less influenced by emotion and instead refer to conditions or changes that advantage or disadvantage actors, serve as means to satisfy wants, or contribute to well-being. This framework offers a lens

through which the articulation of intent and the exercise of power are understood as inseparable from the interests that motivate them.

The power-interest analysis in this study is based on data collected from 2012 to the present, with particular emphasis on literature that legitimized the Arboretum as a campus domain (e.g., UP Diliman Land Use Plan 2012). Historical narratives that continue to shape current behaviors and physical conditions are also considered.The findings indicate a significant imbalance in power distribution (Figure 9). The environment, despite being central to the Arboretum's existence, is the stakeholder with the least influence. This marginalization stems from the limited number of organized groups and advocates representing ecological interests, resulting in their underrepresentation in decision-making. In contrast, institutional governance, represented by planners and developers, holds the greatest authority. Their control over land use, policy, and development places them at the top of the power matrix, frequently overshadowing ecological priorities. The community, consisting of leaders and grassroots initiative groups residing within the Arboretum, possesses nearly equal power. Their proximity and lived experience give them substantial interest and some influence, though their agency is constrained by institutional structures.



While institutional governance holds formal authority, the Samahan ng Mamamayan ng Pook Arboretum (SMPA) functions as a 'key player" possessing high power that rivals these structures. This influence is not merely a product of proximity, but of a strategic transition from a precarious group to a formalized political actor. By registering as an organization in 2013 and leveraging their status within Barangay UP Campus, the community gained the institutional recognition necessary to stall large-scale developments like the UP-PGH project. Furthermore, their power is rooted in a narrative of historical stewardship, they assert a "moral ownership" that transforms their occupancy into a form of institutional entitlement. Thus, despite their legal precarity, their organizational unity and historical legacy provide them with significant disruptive and negotiating leverage.This distribution highlights a critical tension: although governance and community voices are relatively balanced in terms of power, the environment remains persistently marginalized. The matrix demonstrates the urgent need for mechanisms to enhance ecological representation, ensuring that institutional agendas do not compromise the Arboretum's long-term sustainability.

Conclusion and Recommendation:-

The spatial conflicts within the UP Arboretum illustrate a complex, multi-layered landscape shaped by historical legacies, evolving values, and contested power dynamics. Horizontal tensions among communities and vertical

struggles between institutions and grassroots actors are deeply embedded in the Arboretum's history, yet are continually redefined by changing needs, perspectives, and governance structures. This study identifies a diverse array of stakeholders involved in the Arboretum's governance, use, and conservation, emphasizing that responsibility for its protection is shared rather than monopolized by any single group, and that stewardship burdens are distributed across multiple actors.

The distribution of power and interests among stakeholders is evident in diverse expressions of authority and resistance, from formal institutional actions to routine negotiations and assertions. Notably, enduring presence does not necessarily correspond to influence; incremental, seemingly minor actions can collectively shape the Arboretum's trajectory. These dynamics demonstrate that spatial tensions are articulated not only through physical structures but also through behaviors, practices, and sustained community narratives and engagement.

Beyond the specific context of the UP Diliman Arboretum, this case highlights a critical flaw in traditional urban ecological governance. It argues that managing contested urban green spaces cannot rely solely on formal institutional authority and legal land titles. Instead, sustainable urban governance must transition from exclusionary, top-down frameworks toward inclusive models that formally integrate the informal stewardship and historical place-attachment of local communities, ensuring that ecological preservation does not come at the cost of social equity.
Analysis of these tensions indicates that environmental impacts are relative and depend on the interactions among institutional roles, community agency, and intersectional factors. The Arboretum emerges as a contested yet resilient space in which governance, conservation, and use are continually negotiated. By contextualizing these conflicts within broader frameworks of power and participation, this study demonstrates that the Arboretum's future relies on acknowledging diverse perspectives and the complex negotiations that shape its evolving landscape.

Acknowledgement:-

The researchers would like to extend their heartfelt gratitude to the stakeholders who generously supported the study and shared their insights through interviews. Their contributions were invaluable in shaping the depth and direction of the research. The researchers also sincerely thank the community for their encouragement and cooperation, which played a vital role in making the paper a success.

References:-

1. Abiding, M., Calleja, J. M., Lumang, M. R., Miña, M., & Nono, K. (2003). Vegetation Survey and Roadmap Update of UP Arboretum. Ekolohiya, 1(1), 1-10. https://ekolohiya.tripod.com/sitebuildercontent/sitebuilderfiles/research/arbomap.pdf
2. Aulich, J., & Dawson, G. (2007). Contested Spaces Sites, Representations and Histories of Conflict (L. Purbrick, Ed.; 1st ed.). Palgrave Macmillan London.
3. Benditt, T. M. (1975, August). The Concept of Interest in Political Theory. Political Theory, 3(3), 245-258. https://www.jstor.org/stable/191108
4. Berndtson, A. (1970, September). The Meaning of Power. Philosophy and Phenomenological Research, 31(1), 73-84. https://doi.org/10.2307/2105981
5. Dovey, K., & Recio, R. B. (2024, February). Informal Settlement on UP Diliman Campus: A Preliminary Study of Spatial Conditions and Possibilities. University of the PhilippinesCenter for Integrative and Development Studies.
6. Extra Reading notes on Mendelow Matrix. (n.d.). https://live.icai.org/bos/vcc/pdf/Extra_Reading_notes_on_Mendelow_Matrix.pdf
7. International Model Forest Network. (2025, January 17). Philippines' Model Forest Uses Multi-Stakeholder Approach to Improve Local Livelihoods and Restore Forest Landscapes. International Model Forest Network. Retrieved November 18, 2025, from https://imfn.net/philippines-model-forest-uses-multi-stakeholder-approach-to-improve-local-livelihoods-and-restore-forest-landscapes/
8. Jansson, A. (2018). Mediatization and Social Space: Reconstructing Mediatization for the Transmedia Age. Routledge. 10.4324/9781315623017
9. Maricchiolo, F., Mosca, O., Paolini, D., & Fornara, F. (2021, August 2). The Mediating Role of Place Attachment Dimensions in the Relationship Between Local Social Identity and Well-Being. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.645648

10. Philippine Statistics Authority. (2023, January 27). 2015 Census of Population, Report No. 1-A: National Capital Region (Population by province, city, municipality, and barangay). Philippine Statistics Authority. Retrieved 29 September, 2025, from https://psada.psa.gov.ph/catalog/168?vcode=RgaLCf
11. Revised Guidelines on the Establishment and Management of Community-Based Program in Protected Areas. (2004). Retrieved October 8, 2025, from https://elibrary.bmb.gov.ph/elibrary/wp-content/uploads/2023/05/dao2004-32.pdf
12. Reyes, R. C. (2016, March). Public Space as Contested Space: The Battle over the Use, Meaning and Function of Public Space. International Journal of Social Science and Humanity, 6(3), 201- 207. https://www.ijssh.org/vol6/643-H012.pdf?utm_source=copilot.com
13. United Nations Development Programme. (n.d.). Localize to Realize: Accelerating SDG implementation for local and vulnerable groups and communities of women, indigenous peoples and informal settler families [Programme duration June 2024 – May 2025]. In Joint ProgrammeDocument:. UNDP Multi-Partner Trust Fund Office. Retrieved September 21, 2025, from https://mptf.undp.org/sites/default/files/documents/2025-05/extracted_from_philippines_prodoc_140751.pdf?utm_source=copilot.com
14. University of the Philippines Diliman. (2020). Biodiversity Management Handbook. Philippines.
15. University of the Philippines- Diliman. (2021, November 11). History. University of the Philippines Diliman. Retrieved November 20, 2025, from https://upd.edu.ph/history2/
16. The University of the Philippines Gazette. (2020, October 29). 1355th BOR Meeting, 29 October 2020. UP Office of the Secretary of the University. Retrieved October 8, 2025, from https://osu.up.edu.ph/wp-content/uploads/2022/05/2020-OCT-NOV-DEC.finale.pdf