

Planning Provisions of Urban Active Recreation Spaces: A Study of Children's Playground Provisions in Residential Areas of Mysore

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ABSTRACT

Although it is often the residual category in statutory land use planning, allocated only after residential, commercial, industrial, and transportation requirements have been satisfied, active recreation space for children, especially neighborhood play grounds, is a fundamental component of child health, development, and the right to play. Using the Revised Master Plan (Revision-II) 2031 created by the Mysore Urban Development Authority (MUDA) as the main source document, this study investigates the planning provisions for urban active recreation space in the residential areas of Mysore city, with particular reference to the provision of children's playgrounds. The study examines the Development Control Regulations that control playground reservation in new residential layouts and within individual building plots, extracts and analyzes data on open space allocation across the 45 planning districts of the Mysore-Nanjangud Local Planning Area, and compares the Master Plan's provisions to national and international recreational space standards, such as the Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines, 2014 and World Health Organization benchmarks. The results demonstrate that only 5.51 percent of the planned 2031 Mysore urban conurbation is made up of open space, including parks and playgrounds, which is significantly less than the per-capita standards suggested by the URDPFI Guidelines. Additionally, the amount of open space provided varies greatly amongst planning districts, with some purely residential districts reporting open space shares of less than 3%. Although the Master Plan's Subdivision Regulations require a minimum 10% reservation for parks, open spaces, and playgrounds in new layouts, this requirement is applied prospectively to new subdivisions and is not retrofitted to the substantial stock of residential areas that have already been developed, creating a structural gap in children's access to playgrounds in older neighbourhoods. Recommendations for population-linked, hierarchical play space criteria and retrofitting procedures for underprivileged residential planning areas are made in the paper's conclusion.

Keywords: urban recreation space; children's playgrounds; land use planning; Mysore; master plan; open space standards; child-friendly cities.

INTRODUCTION

In order to promote physical activity, creativity, and social connection, children's play areas in urban settings need to be carefully planned. Mysore faces the difficulty of striking a balance between the demands of land usage and the requirement for high-quality play areas due to its continuous urban change. In order to enhance child-friendly urban areas, this article analyzes planning provisions and suggests contextualized adjustments based on cross-cultural data and localized evaluation frameworks. In urban land use planning, active recreation space—and children's playgrounds in particular—occupies a unique position. Although it is regularly one of the smallest and most unevenly distributed land use categories in practice, it is uniformly supported in planning policy papers. The Convention on the Rights of the Child recognizes play as a fundamental human right, and an increasing amount of research in public health and urban planning relates children's physical activity, mental health, and social development to having access to a safe, close-by

outdoor play area (World Health Organization [WHO], UNICEF, & UN-Habitat, 2026). At the same time, the amount of space available for kids to play outside in Global South cities has been continuously reduced due to growing urbanization, rising land values, and vehicle-oriented street design (Gill, 2021). Recreational open space, including kid-friendly play areas, is regulated at two levels in the Indian planning system: layout-level or building-level regulation through Development Control Regulations (DCR) and Subdivision Regulations, and citywide land use allocation within the statutory master plan. Using the Revised Master Plan (Revision-II) 2031 created by the Mysore Urban Development Authority (MUDA) for the Mysore-Nanjangud Local Planning Area (MUDA, 2013), this study looks at both levels in relation to Mysore, a historic city in Karnataka with more than ten lakh inhabitants. The paper poses a specific question: what are the requirements of the relevant Development Control Regulations for both new and existing residential development in this regard, and how effectively and fairly does Mysore's current land use planning framework provide for children's active recreation space in residential areas?

REVIEW OF LITERATURE

After the Convention on the Rights of the Child was adopted in 1996, UNICEF and UN-Habitat jointly developed the Child-Friendly Cities Initiative, which recognized outdoor play and public space access as essential components of child-responsive urban governance (WHO, UNICEF, & UN-Habitat, 2026). In UNICEF's handbook on child-responsive urban planning, Aerts (2018) makes the case that play space provision is dependent on residual land rather than dedicated allocation because municipal land use plans seldom translate the rhetoric of child-friendliness into enforced spatial criteria. This argument is extended by Gill (2021), who argues that child-friendly planning necessitates intentional design and regulatory intervention rather than incidental provision and that children have become largely "invisible" in city planning processes that are primarily driven by economic and transportation considerations.

Play is one of seven essential elements that determine whether a residential neighborhood supports children's well-being, along with active mobility, amenities, the public realm, nature, place attachment, and the learning environment, according to a systematic literature review of child-friendly neighborhood design (Urban design strategies for creating child-friendly neighborhoods, 2025). According to the same report, the majority of children worldwide are expected to reside in cities within the next ten years, making neighborhood-level play provision even more crucial. In addition to this design-focused literature, WHO, UNICEF, and UN-Habitat (2026) jointly published a global guide to creating urban public spaces for children, pointing out that only 44% of urban dwellers worldwide live in close proximity to open public space—a percentage that drops to roughly 30% in low- and middle-income countries—and advocating for the direct integration of child-centered urban design into city planning practices.

The URDPFI Guidelines, 2014, published by India's Ministry of Urban Development, recommend 10 to 12 square meters of open space per person on the technical side of land use standards. This space should be distributed hierarchically from the housing-cluster level, where three to four local parks and playgrounds are recommended, up to sector, community, district, and city-level recreational facilities (Government of India, Ministry of Urban Development, 2014). According to the state of open space literature on Indian cities, the World Health Organization recommends a minimum of 9 square meters of accessible green or open space per inhabitant as a baseline for livable urban settings. While Mumbai's total accessible open space compares fairly well with these standards overall, a large portion of the area that is ostensibly designated as parks or playgrounds is either poorly maintained or practically inaccessible to the public, highlighting the fact that norm compliance measured at the city aggregate level can conceal significant local shortfalls (Formulating open-space policies for India's cities, 2023). The conclusion that equal neighborhood-level access is not ensured by per-capita compliance at the city scale is supported by comparative planning literature. When compared to URDPFI standards, a ward-wise GIS-based study of open space provision in an Indian metropolitan city revealed significant differences in per-capita open space availability across wards, with several residential wards falling well short of the recommended standard despite adequate citywide aggregate figures (Impact of population growth on open space, n.d.). This distributional conclusion clearly relates to the current research of Mysore, where, despite the citywide intended figure appearing numerically

tiny but non-trivial, open space and playground provision differs drastically between planning districts, as shown in the findings section.

Urban Planning and Children's Play Spaces: A Global Perspective

Play is crucial for children's social, emotional, mental, and physical development starting in early childhood. Children naturally use it as a tool to build resilience as they learn how to work together, overcome obstacles, and bargain with others. Additionally, play fosters children's creativity. It gives parents the opportunity to spend quality time with their kids, strengthen their bonds with them, and see the world from their point of view. However, financial barriers frequently prevent impoverished children from exercising their right to play, which has an impact on their normal social-emotional growth. Play supports children's cognitive, emotional, social, physical, and overall well-being, according to a theory-informed analysis; no sample size or formal evidence-strength measure is reported. Parents, educators, and pediatricians must acknowledge the significance of lifelong benefits that children gain from play in order for underresourced children to reach their full potential (Milteer, R.M., et al. 2012). method of main_finding scope. In 2025, Fumbiro Akiriza O. Play is presented as essential to children's overall development, promoting social interaction, growth, and emotional control, although neither an empirical sample nor a methodology are provided. Play_development_benefits play_learning_social_emotional. (2018) Whitman, E. According to research from several disciplines, play may be essential to typical personality development; the abstract does not provide the number of studies or sample size (McArdle, P. 2001).

Play Space Planning in India: Standards and Guidelines

Play-behavior, location-pattern, and activity-problem analysis are used in ongoing Malaysian study to evaluate the suitability of playground regulations in affordable housing; however, no conclusive results or evidence unique to India are reported. research focus and scope. M. F. M. Latfi et al. (2012). The abstract does not provide the sample size, but it uses random and stratified sampling with visual observations to develop guidelines for child-friendly residential precincts in Visakhapatnam City. (K. Harshitha and others, 2021). There is no evidence of creative, imaginative, or exploratory play in Bangalore's urban play areas, which were mostly monitored and encouraged functional and rule-based play. Systematic observations in one park and one playground provide the majority of the evidence.study_scope_method main_finding play_patterns.In 2024, Priya, V. P., and Jadhav, U. uses surveys, perception tests, regression analysis, and validation in two more neighborhoods to create an India-relevant matrix of children's play needs and environmental parameters that shows how Nagpur neighborhoods frequently fall short of children's fundamental right to play. The data comes from a qualitative Nagpur case study with unreported participant numbers. main_finding technique. (K. D. Bhonsle & V. S. Adane, 2016).

Child-Friendly Cities and Participatory Planning

The number of participants and the robustness of the quantitative evidence are not disclosed, however a Canadian case-study project employs a 15-factor procedure to record child and youth involvement in child-friendly planning across projects ranging from individual activism to municipal programs. case studies for project emphasis. (R.S. Bridgman, 2023).UNICEF promotes the idea of "child-friendly cities," which offers a framework for planning that makes cities more inclusive of children's needs in terms of services, governance, and the environment. In India, cities like Indore, Jabalpur, Kochi, and Bengaluru have benefited from the Nurturing Neighborhoods Challenge (NNC), which is organized by the Smart Cities Mission in partnership with the Van Leer Foundation and WRI India. The NNC reclaims underutilized spaces in densely populated neighborhoods to provide doorstep play opportunities for young children and caregivers. These programs show that child-friendly planning is a workable strategy that can be put into practice through strategic interventions and participatory processes, rather than just a normative goal.

Playground Provision in Mysore: Context and Challenges

With a population of more than a million, Mysore has a rather robust urban planning heritage. Parks, playgrounds, and open spaces account for 5.51% of the land usage under the city's Master Plan 2031.

However, as detractors have pointed out, this amount is much less than the URDPFI norm of 10–12 square meters per person, and there are really even fewer functioning playgrounds available in residential areas. There are over 180 parks and playgrounds in the city, but most of them are small neighborhood parks rather than places specifically designed for kids to play. Land disputes around playgrounds are becoming more frequent. Residents of Gokulam have vehemently objected to MUDA's plan to build a group housing project on a three-acre playground, claiming that the playground is well situated and ought to be kept at all costs. Other residential areas have seen similar conflicts, which are indicative of a larger trend of building pressure on public open spaces. These disputes pose important issues regarding how planning regulations are enforced and how children's interests are given priority when making decisions about urban development.

Statement of the Problem

The Mysore-Nanjangud Master Plan 2031 does not adopt a population-linked, hierarchical standard for playground provision of the kind suggested under the URDPFI Guidelines, despite listing parks, playgrounds, and open spaces as a separate land use category and reserving the category as a permissible urban amenity use under its Development Control Regulations. Instead, open space is allocated as a residual portion of each planning district's land, which leads to significant differences between planning districts and no clear way to retrofit playgrounds into the numerous residential areas that have already been developed and predate the 10% open space reservation now required of new layouts. The sufficiency and equity of statutory playground and active recreation space supply for children in Mysore's residential areas is the issue this article examines, comparing it to both the plan's own land use data and relevant national and international principles.

Objectives of the Study

1. To assess how much open space, such as parks and play areas, is distributed throughout the residential planning districts of Mysore-Nanjangud under the Mysore-Nanjangud Master Plan 2031.
2. To evaluate the open space provisions of the Master Plan with international (WHO) and national (URDPFI) recreational space standards.
3. To examine the subdivision and development control regulations that control the availability of playgrounds for kids at the building-plot and layout levels. To determine the differences in playground and open space access between Mysore's residential planning districts.
4. To suggest ways to make active recreation spaces more equitable and adequate for kids in both current and upcoming residential developments.

RESEARCH METHODOLOGY

The Revised Master Plan (Revision-II) 2031 for the Mysore-Nanjangud Local Planning Area, including its land use proposal tables for the 45 constituent planning districts and its Development Control and Subdivision Regulations, is the focal point of this study's qualitative, document-based research design (MUDA, 2013). For comparative study, open space area and percentage data were taken from the Master Plan's planning-district-level land use tables. Since the Master Plan language often makes a distinction between current (existing) open space deficiencies and projected future allocations, both the proposed 2031 land use figures and the narrative descriptions of present land use conditions supplied for each planning district were analyzed. The Subdivision Regulations for residential layouts, the permissible land use table for public and semi-public (urban amenity) zones, and the setback regulations applicable to children's play areas within building plots were among the pertinent Development Control Regulation clauses that were found and examined. Following the comparative approach employed in recent Indian open-space equity studies (Formulating open-space policies for India's cities, 2023; Impact of population growth on open space), these results were then compared to the URDPFI Guidelines, 2014 (Government of India, Ministry of Urban Development, 2014) and the WHO per-capita open space benchmark.

Study Area

According to the 2011 Census, Mysore, the second-largest urban center in Karnataka, has a population of over 10.14 lakh. According to the Master Plan, that number is expected to rise to roughly 21.00 lakh by 2031 (MUDA, 2013). The proposed Mysore urban conurbation for 2031 encompasses 292.42 square kilometers of the 507 square kilometers of the Mysore-Nanjangud Local Planning Area, which is governed by MUDA and divided into 45 planning districts. With residential use making up 53.81 percent (15,735.06 Ha) of the proposed conurbation area, residential use is the single largest land use category. As a result, the quality of recreational space in and around residential planning districts directly affects the daily lives of the vast majority of the city's projected 21 lakh residents.

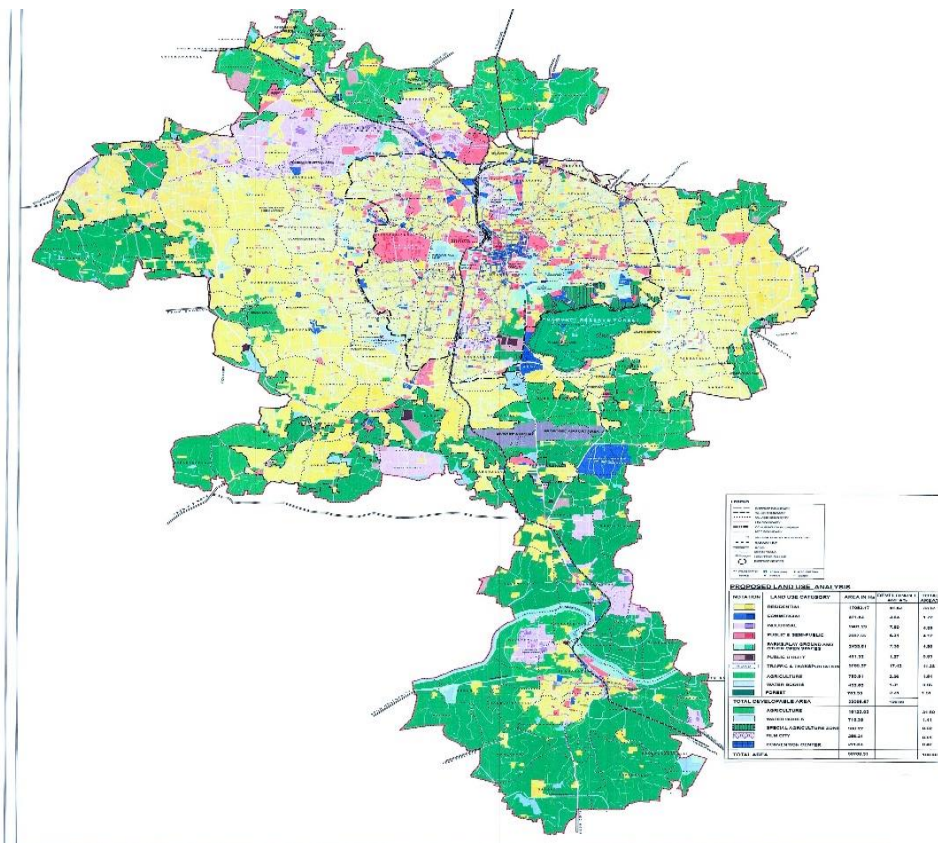


Figure: 1 study area Map

Source: MUDA, Master plan 2031

Normative Standards for Recreation Space Provision

Using data from international, national, and local (MUDA-specific) sources, Table 1 compares the open space and recreational requirements relevant to Mysore's planning framework and evaluates their suitability for the current Master Plan 2031.

Standard / Source		Recreational / Open Space Norm	Applicability to Mysore Master Plan 2031
World Organization	Health	Minimum 9 sq.m of accessible green/open space per capita	No explicit per-capita open space or playground indicator stated in the Master Plan text
URDPFI 2014	Guidelines, (MoUD,	10–12 sq.m of open space per person; hierarchical provision from housing-cluster level (3–4 local parks/playgrounds)	Master Plan allocates open space by planning district area share, not by population-linked per-capita

Government of India)	to city level	norm
MUDA Subdivision Regulations (Master Plan II-2031, DCR Section 8.A.c)	Parks, open spaces and playgrounds not less than 10% of total layout area, relinquished free of cost to the Authority	Applies only to new residential layouts at approval stage; not retrofitted to already-developed planning districts
MUDA DCR Section 5 (Setback Regulations)	Children's play area permitted outside plinth of building with minimum 3 m clearance (6 m for high-rise, for fire-tender movement)	Building-level provision only; does not address neighbourhood or planning-district level deficits
MUDA DCR Table 4-6 (Permissible Land Uses, U1 Category)	Parks, playgrounds and maidans listed as permissible urban amenity use in U1 zones	Confirms permissibility but does not mandate minimum provision within existing residential zones

Sources: Compiled by the authors based on Government of India, Ministry of Urban Development (2014); WHO, UNICEF, and UN-Habitat (2026); and the Development Control and Subdivision Regulations of the Revised Master Plan (Revision-II) 2031 (MUDA, 2013).

Land Use Analysis: Open Space Provision across Planning Districts

By 2031, the entire Mysore urban conurbation is expected to have 1,611.62 Ha under the open space category, or 5.51 percent of the total conurbation area (MUDA, 2013). This amount is less than the lower bound of the URDPFI Guidelines' recommended 10 to 12 square meters of open space per person when translated into an area share for a projected population of roughly 21 lakh. Open space statistics are shown in Table 2 for a representative sample of planning districts chosen to show the variety of services available in the city's mostly residential sections.

Planning District (PD)	Predominant Character	Open Space Area (Ha)	% of Total PD Area (Proposed 2031)
PD-1	Mixed residential-commercial (CBD fringe)	24.11	8.03
PD-2	Predominantly residential	23.10	11.12
PD-3	Residential (grid-iron layout, MUDA developed)	61.82	10.63
PD-7	Purely residential	—	< 3.00 (existing)
PD-10	Residential / institutional	16.29	5.50
PD-13	Residential	20.70	3.59
PD-18	Residential, heritage-adjacent	16.75	3.83
PD-20	Institutional / University campus with residential pockets	5.94	1.56
PD-25	Residential	15.74	3.03
PD-36	Residential	15.30	2.02

PD-38	Residential	15.53	3.09
PD-42 (Nanjangud)	Town core with industrial estate	125.04	7.03
Mysore City Conurbation (Total)	All categories	1,611.62	5.51

Sources: Compiled by the authors. Data were extracted and tabulated from the planning-district-level land-use tables and narrative descriptions of the Revised Master Plan (Revision-II) 2031 (MUDA, 2013).

Significant differences between planning districts are displayed in the table. Proposed open space shares in a number of districts that are primarily or exclusively residential, such as PD-13, PD-25, PD-36, and PD-38, range from 2 to 4 percent of the district area, which is much less than both the URDPFI norm and the citywide average. The Mysore University campus and related educational institutions occupy the majority of the land in PD-20, which has an exceptionally low open space and playground share of 1.56%. The Master Plan document itself notes that the area under parks and playgrounds is less than 1% of the district's land (MUDA, 2013). Planning districts developed through planned MUDA layouts, where the Subdivision Regulation's 10% open space reservation applied at the point of layout approval, tend to perform better than districts that grew through unplanned or pre-regulation development. In contrast, PD-2 and PD-3, both developed under MUDA's own residential layout schemes, show comparatively higher shares of 11.12% and 10.63%, respectively.

FINDINGS AND DISCUSSION

Aggregate Provision Falls Short of Recommended Norms

Mysore's proposed citywide open space allocation, which includes parks, playgrounds, and other open spaces, is only 5.51 percent of the total conurbation area. This is less than the area share suggested by the URDPFI Guidelines' per-capita recommendation of 10 to 12 square meters per person for a projected 21 lakh people in 2031 (Government of India, Ministry of Urban Development, 2014; MUDA, 2013). This overall deficiency is in line with a larger trend found in Indian open-space literature, which shows that even in cases where national guidelines are formally adopted as the reference standard, city-level land use plans often fall short of them (Formulating open-space policies for India's cities, 2023).

Sharp Disparity Between Planned and Unplanned Residential Districts

In the Table 2's planning-district-level data shows that the availability of playgrounds and open spaces is not only low on average but also extremely unevenly distributed. Compared to districts that developed before this regulation or through private, unplanned residential growth, districts that developed significantly through MUDA's own planned residential layouts, where the Subdivision Regulation's 10% open space reservation applied, exhibit noticeably higher shares of organized open space. This result is consistent with ward-level differences reported in other Indian cities, where significant neighborhood-level deficiencies coexist with overall adherence to open space standards (Impact of population expansion on open space).

Regulatory Provision is Prospective, not Retrospective

According to the Master Plan's Subdivision Regulations, parks, open spaces, and playgrounds must make up at least 10% of the total land area of any new residential layout and be given up to the Authority at no cost (MUDA, 2013). Although this is a fairly strict criteria by Indian planning standards, it only comes into play when new residential layouts are approved. Children in these older or unplanned residential areas have structurally worse access to organized play space than children in more recently developed MUDA layouts because the Master Plan lacks a corresponding mechanism to retrofit play ground provision into the significant number of already-developed residential planning districts identified in Table 2 as having open space shares below 5%.

Building-Level Provision is Narrowly Framed

The Development Control Regulations allow a children's play area to be situated outside a building's plinth at the level of individual building plots, provided that there is a minimum 3-meter (or 6-meter) clearance for high-rise buildings to accommodate fire tenders (MUDA, 2013). Although this clause acknowledges children's play as a permissible use of setback space, it does not establish a minimum area, equipment, or safety standard for the play space itself, and it is limited to individual building plots rather than the neighborhood scale. The URDPFI Guidelines' hierarchical, population-linked standard, which calls for local, sector, community, district, and city-level play and recreation facilities to nest within a coordinated system, is far superior to this constrained, plot-by-plot framing (Government of India, Ministry of Urban Development, 2014).

Absence of A Child-Specific Planning Lens

Only two clauses in the Master Plan and its Development Control Regulations specifically mention children, aside from the general open space category: the accessibility clause, which mandates that buildings primarily used by children have appropriately modified fittings and fixtures, and the permissible list of urban amenity uses, which includes nursery crèches among other institutional uses (MUDA, 2013). According to recent child-friendly planning literature, play should be treated as a defined design element of residential neighborhoods rather than an incidental permitted use (Urban design strategies for creating child-friendly neighborhoods, 2025; WHO, UNICEF, & UN-Habitat, 2026). However, neither of these provisions constitutes a child-specific spatial standard for neighborhood play space.

Gaps in Existing Planning Provision

1. The amount of open space allotted to the city, including playgrounds, is 5.51 percent of the Mysore conurbation, which is less than the area suggested by URDPFI per-capita criteria for the population forecast for 2031.
2. Planned MUDA layouts and older or unplanned residential planning districts have a significantly different open space share, with several falling below 3%.
3. There is no way to modify existing residential areas to meet the 10% open space requirement for new plans.
4. The provision of a children's play area at the building level is optional rather than required, and it does not have any minimum space, equipment, or safety requirements.
5. There is no way for kids or families to have a say in the location, layout, or quality of the neighbourhood play area.

RECOMMENDATIONS

1. A clear per-capita open space and playground standard, benchmarked to the URDPFI Guidelines' 10–12 square meters per person, should be adopted in future editions of the Mysore Master Plan. Planning-district-level compliance should be reported against this standard.
2. In accordance with URDPFI principles, land use and zoning regulations should explicitly incorporate a hierarchical play space system that spans housing-cluster, neighborhood, and planning-district levels.
3. In order to acquire or convert available unoccupied or public land into playgrounds, MUDA should prioritize residential planning districts like PD-13, PD-20, PD-25, PD-36, and PD-38 that have open space shares lower than the citywide average.

4. To promote the establishment of play space in already-developed residential neighborhoods, an incentive-based retrofitting mechanism, such as the transfer of development rights or density incentives, should be included to the Subdivision Regulation's 10% open space reservation.
5. Instead than being left as a permissive setback use, the Development Control Regulations' building-level children's play space requirements should be reinforced with minimum area and safety equipment regulations.
6. In line with child-friendly and participatory planning practices, future changes should incorporate organized engagement with families and children (Aerts, 2018; WHO, UNICEF, & UN-Habitat, 2026).

CONCLUSION

This study used a document-based analysis of the Revised Master Plan (Revision-II) 2031 to look at the planning provisions for children's active recreation space in Mysore's residential areas. The results demonstrate that although the Master Plan recognizes parks, playgrounds, and open spaces as a separate land use category and requires a 10% open space reservation in new residential layouts, overall citywide provision falls short of suggested national and international standards, and provision is noticeably uneven across planning districts, with open space shares below 3% of total area in several primarily residential districts. Playground supply is governed by a regulatory system that is plot-level rather than neighborhood-level, prospective rather than retroactive, and mostly mute on the unique needs of children as unique consumers of public space. Adopting a clear, population-linked, and hierarchical recreation space standard, focusing intervention in underprivileged planning areas, and enacting stricter regulations for children's play at the neighborhood and building levels are all necessary to close these inequalities. In order to determine whether the spatial disparities found in the Master Plan's land use tables are reflected in the lived experience of residents, future research could expand this document-based analysis by conducting field surveys of playground accessibility, condition, and use throughout Mysore's residential neighborhoods and by speaking directly with children and caregivers.

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