



ASSESSMENT OF QUALITY OF LIFE AMONG CITIZENS OF THE HUBBALLI–DHARWAD TWIN CITIES OF KARNATAKA

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ABSTRACT

The quality of life is a multifaceted notion that includes physical, social, economic, and environmental factors affecting individual well-being and contentment. The current research, entitled "Environmental Quality and Urban Quality of Life among Citizens of Hubballi–Dharwad Twin Cities, Karnataka," investigates residents' views on environmental standards and public services in the twin towns. The research relies on original data gathered from 384 residents of Hubballi–Dharwad. The evaluation takes into account ten significant environmental and civic metrics, including air quality, noise pollution, cleanliness, municipal sanitation efforts, public restroom facilities, household waste management, local government dedication to climate change, forested and green spaces, urban water resources, and urban governance in relation to environmental preservation. A satisfaction metric featuring categories of very satisfied, somewhat satisfied, not very satisfied, not at all satisfied, and don't know/not relevant was employed to evaluate citizens' perceptions. Weighted ratings were utilized to assess the comparative significance of the chosen indicators. The results indicate a generally inadequate level of contentment with environmental quality and city services. Public restrooms, sanitation, natural spaces, climate action efforts, and ecological management surfaced as significant sources of discontent. The collection of household garbage achieved the highest weighted score among the chosen variables, whereas urban environmental governance and public sanitation facilities garnered relatively lower ratings. The research determines that elevating environmental standards, sanitation, waste management, urban greenery, water resource preservation, and effective environmental governance is crucial for improving urban living conditions in Hubballi–Dharwad. The results offer valuable perspectives for local governments and urban designers in formulating citizen-focused, inclusive, and ecologically sustainable urban development plans.

KEYWORDS: *Quality of Life, Urban Quality of Life, Environmental Quality, Citizens' Satisfaction, Municipal Services, Hubballi–Dharwad, Urban Environment, Sustainable Urban Development.*

INTRODUCTION

The notion of quality of life (QoL) has surfaced as a significant multidimensional framework for evaluating the welfare and holistic advancement of individuals and societies. Historically, development was assessed primarily via economic metrics like income, employment, and consumption. Nonetheless, modern methodologies acknowledge that financial success by itself is insufficient to account for individuals' well-being. Quality of life includes a wider array of aspects, such as physical health, mental wellness, social connections, economic status, housing circumstances, environmental standards, safety, availability of public services, transportation, and prospects for personal and social growth. Consequently, evaluating quality of life offers a more thorough insight into individuals' experiences within their surroundings.

The World Health Organization (WHO) characterizes quality of life as a person's assessment of their standing in life, influenced by their cultural and value frameworks, as well as their aspirations, anticipations, benchmarks, and worries. This concept highlights that quality of life is both subjective and multifaceted, shaped by physical health, mental state, degree of autonomy, social connections, and environmental factors. The WHOQOL framework thus offers a significant conceptual foundation for assessing individuals' opinions of their well-being instead of solely depending on objective socioeconomic metrics.

The phenomenon of urbanization has rendered the examination of quality of life progressively significant. Urban areas offer enhanced prospects for jobs, education, healthcare, transit, and social engagement; however, swift urban expansion can lead to issues like traffic congestion, substandard housing, environmental pollution, waste buildup, water scarcity, joblessness, social disparity, and safety apprehensions. Thus, the calibre of urban existence relies not solely on infrastructure availability but also on inhabitants' contentment with their living circumstances and their perception of their neighbourhoods as secure, healthy, accessible, and socially nurturing.

Hubballi–Dharwad constitutes a significant metropolitan hub in northern Karnataka and exemplifies a unique twin-city urban framework. The two cities have evolved into a significant hub for commerce, education, transportation, and services in the area. Hubballi has historically been linked to trade and transportation, whereas Dharwad has emerged as a significant hub for education, culture, and governance. The integrated metropolitan region has undergone significant demographic increase and spatial development, resulting in heightened demand for housing, transportation, water resources, sanitation, healthcare, education, and various urban services. A prior evaluation of Hubli–Dharwad scrutinized infrastructure, roadways, transportation, education, healthcare, water provision, sewage systems, energy, solid waste management, environmental



factors, and public safety as critical aspects of urban living standards.

The well-being of inhabitants is thus intricately linked to the efficiency of urban administration and the provision and accessibility of essential services. Enhancements in income and physical infrastructure might not lead to an elevated perception of quality of life if inhabitants face environmental deterioration, substandard public transport, inadequate housing, insecurity, or a lack of healthcare and recreational amenities. Quality-of-life research must therefore incorporate both tangible living conditions and individual views and contentment.

Recent studies concerning urban living standards in India have embraced progressively multifaceted methodologies. Patil and Sharma evaluated the urban quality of life in 14 Indian cities by utilizing 29 variables categorized into basic amenities, economic growth, safety and security, transit accessibility, environmental effects, infrastructural advancement, and gender dynamics. Their examination revealed that transportation accessibility significantly enhanced the overall quality of urban life, underscoring the critical role of mobility and accessibility in urban welfare.

The Hubballi–Dharwad context is notably pertinent as a recent investigation into urban inhabitants' attitudes revealed that residents expressed a higher level of contentment regarding fundamental needs like food and clothing, whereas their satisfaction with housing, mental health services, living conditions, and urban livability was significantly diminished. The research also recognized physical health, mental health, employment, personal safety, and emotional wellness as significant determinants of subjective quality of life. A separate investigation examining the sociological conditions of quality of life for residents of Hubli–Dharwad highlighted issues related to the sufficiency of fundamental amenities and underscored the necessity for enhancements in the urban habitat.

In light of this context, the current research examines the quality of life of residents in the twin cities of Hubballi and Dharwad, Karnataka. The research aims to comprehend inhabitants' perceptions of their living conditions and to pinpoint the primary social, economic, physical, environmental, and service-related elements influencing their quality of life. This evaluation can furnish valuable insights for urban planners, local governmental bodies, and politicians in formulating human-centric strategies to enhance urban livability and promote equitable growth.

Felce and Perry (1995) investigated the conceptualization and assessment of quality of life, contending that QoL should not be simplified to a singular variable. They suggested a methodology that combines both objective and subjective metrics, personal values, and several life areas. Their approach recognized physical health, economic stability, social connections, emotional health, and personal growth and engagement as vital aspects of quality of life. Their research is essential as it highlighted the necessity of integrating quantifiable living conditions with personal opinions and values in evaluating quality of life.

Samuel Paul and colleagues (2012) investigated Hubli–Dharwad within a comprehensive evaluation of urban areas in Karnataka. Their examination took into account the historical context and administration of the twin city, including demographic attributes, economic factors, and municipal assets. The research critically analyzed infrastructure including roads, street illumination, transit systems, educational facilities, healthcare services, water provision, sewage systems, energy supply, and solid waste management. Environmental standards and public security were likewise regarded as factors pertinent to urban living conditions. The research indicates that the standard of living in Hubballi–Dharwad is closely linked to the efficacy of fundamental urban infrastructure and public services.

Hubballi and Shettar (2023) performed a sociological analysis about the quality of life among the inhabitants of Hubli–Dharwad city. The research emphasized quality of life as a crucial metric of social progress and concentrated on the circumstances faced by city dwellers. The results revealed deficiencies in fundamental amenities and underscored the necessity for action by relevant authorities and local organizations to enhance the urban living conditions. The research is especially pertinent to the current investigation as it offers concrete evidence regarding quality of life inside the same twin-city framework.

Patil and Sharma (2022) created an extensive evaluation of Urban Quality of Life (UQoL) for 14 cities in India. They employed 29 metrics categorized into seven dimensions: fundamental amenities, economic advancement, safety and security, transit accessibility, environmental consequences, infrastructure enhancement, and gender dynamics. Employing Principal Component Analysis, the investigators generated a comprehensive UQoL score and prioritized the cities. Their research revealed significant disparities among Indian cities and suggested that transportation accessibility was the most substantial factor influencing the total UQoL metric. The research illustrates the significance of employing a multifaceted approach instead of evaluating metropolitan quality of life just based on income or infrastructure.

A recent investigation into urban inhabitants' views and perceptions of quality of life in Hubballi–Dharwad analyzed 384 participants from four metropolitan wards. The research examined contentment with housing, community, nutrition, apparel, mental health services, living circumstances, and individual characteristics. The results revealed a relatively higher contentment with fundamental needs, although diminished happiness for housing, mental health services, residential area, urban livability, and overall living conditions. The research additionally indicated that personal safety, physical health, mental health, employment, and emotional wellness were significant factors influencing subjective quality of life. These results emphasize the necessity for a citizen-focused strategy in urban development within Hubballi–Dharwad.

The current research seeks to address this deficiency by investigating the quality of life among residents of Hubballi–Dharwad and pinpointing the primary determinants that shape their views on urban well-being.



RESEARCH METHODOLOGY

This study selected the cities of Hubli and Dharwad, which exhibit significant characteristics of urbanisation. The cities comprise 82 wards, from which ward no. 11 and 19 were chosen from Dharwad city, and ward no. 32 and 44 from Hubli city, owing to their increased urbanisation, a primary emphasis of the study. An eligible individual from each household, including 400 respondents, has been selected; they must be over 30 years old, married, and possess an educational qualification.

The present study selected 100 participants from four wards. Out of 400 respondents, 384 submitted complete

questionnaires, yielding valid responses. Sixteen respondents were removed for submitting incomplete questionnaires and failing to return them. The data was collected from all 384 members of the Hubli Dharwad Municipal Corporation. Data was acquired through questionnaires, schedules, discussions with key informants, and observational techniques. The questionnaire and interview schedule were created in both English and Kannada to elicit precise replies concerning the quality of life of residents in the Hubli-Dharwad region.

RESULT

Table : ,Overall Quality of Life Hubli-Dharwad Cities

Sl. No.	Statement / Scales	Very satisfied	Fairly satisfied	Not very satisfied	Not at all satisfied	Don't know / not applicable	Total	Average Weighted Score	Weighted Average Score
1	The quality of the air.	27	31	97	174	55	384	953	0.1026
2	The noise level.	32	55	75	167	55	384	994	0.1071
3	Cleanliness.	9	15	88	221	51	384	862	0.0928
4	The work of Hubli Dharwad municipal corporation towards sanitation of city.	27	15	75	232	35	384	919	0.099
5	Status of Public Toilets at Hubli Dharwad City.	2	9	74	272	27	384	839	0.0904
6	Collection of Household wastes / garbage by Corporation personnel.	33	21	235	62	33	384	1111	0.1197
7	Is local government is committed to fight against climate change (e.g.: energy efficiency, green transport).	4	11	87	248	34	384	855	0.0921
8	Forest area in and around the cities.	3	12	72	282	15	384	858	0.0924
9	Water resources the city (Lake, Pond, River).	13	11	257	69	34	384	1052	0.1133
10	Activeness of urban governance towards the conservation of environment.	6	25	53	249	51	384	838	0.0902



The aforementioned table illustrates the contentment levels of 384 residents concerning environmental quality and municipal services in the twin cities of Hubballi–Dharwad. In general, the feedback suggests that residents exhibit comparatively poor satisfaction about the majority of environmental and municipal service metrics. The prevalence of responses in the “Not very satisfied” and “Not at all satisfied” categories signifies substantial discontent with environmental conditions and the efficacy of municipal services.

Air Quality

Concerning air quality, merely 27 participants expressed high satisfaction, 31 indicated moderate satisfaction, while 97 were somewhat dissatisfied and 174 were completely dissatisfied. An additional 55 participants said that they were unsure or deemed the question irrelevant. Consequently, 271 of the 384 participants indicated varying levels of discontent, implying that air pollution is regarded as a significant issue impacting urban living standards.

Sound Intensity

The results of noise pollution also reveal considerable discontent. A total of 32 participants expressed high satisfaction, 55 indicated moderate satisfaction, while 75 reported low satisfaction and 167 were completely dissatisfied. Consequently, 242 participants indicated discontent with the existing noise levels. This suggests that noise pollution could be a significant environmental element affecting the comfort and well-being of individuals.

Sanitation

The notion of cleanliness elicited a notably adverse reaction. A only 9 participants expressed high satisfaction, while 15 indicated moderate satisfaction, in contrast to 88 who reported low satisfaction and 221 who were completely dissatisfied. Consequently, 309 participants conveyed their discontent. This discovery indicates that maintaining urban cleanliness continues to be a significant obstacle in the twin cities.

Sanitation operations of the Municipal Corporation:

Concerning the efforts of the Hubballi-Dharwad Municipal Corporation on municipal sanitation, merely 42 respondents expressed some level of satisfaction, whilst 307 indicated disgust. This suggests that a significant number of residents view the municipal corporation's cleanliness initiatives as insufficient. Enhancing sanitation services could substantially elevate the overall quality of life for individuals.

Restroom facilities accessible to the public

The condition of public restrooms garnered the least favourable satisfaction rating among the metrics. A mere 11 participants expressed a high or moderate level of satisfaction, while 346 participants reported dissatisfaction. This outcome indicates a considerable shortcoming in public sanitation facilities and implies a necessity for enhancement in the availability, accessibility, hygiene, and upkeep of public restrooms.

Domestic Refuse Collection

Waste management achieved the highest weighted score (1111) among the ten metrics. Nonetheless, the allocation of replies continues to be varied. Out of the respondents, 54 expressed satisfaction, 235 indicated a lack of substantial satisfaction, and 62 reported complete dissatisfaction. Consequently, despite waste collection exhibiting superior performance relative to many other environmental services, 297 participants yet conveyed their discontent. This indicates that enhancements in the consistency, scope, separation, and disposal of domestic waste would be necessary.

The local administration's dedication to addressing climate change

Merely 15 participants expressed satisfaction with the local administration's dedication to addressing climate change, whilst 335 participants indicated dissatisfaction. This signifies an exceedingly low degree of public contentment over programs like energy efficiency, sustainable transportation, and other climate-related actions. Enhanced transparency and execution of environmental sustainability initiatives may elevate public perceptions.

Forest area in and around the cities

The presence of forested and green spaces elicited a markedly adverse reaction. A mere 15 participants indicated contentment, whereas 354 participants reported dissatisfaction. The discovery indicates that residents recognize a deficiency of green areas and forested regions in and surrounding the twin cities. Enhancing urban vegetation, parks, arboreal coverage, and safeguarded green areas may elevate environmental standards and urban livability.

Hydrological Assets

Concerning lakes, ponds, and rivers, merely 24 participants expressed satisfaction, while 326 participants indicated dissatisfaction. The weighted score of 1052 ranked as the second highest among the ten metrics. This suggests that residents place significant value on the state and accessibility of urban water resources and recognize tremendous potential for enhancement in their conservation and administration.

Municipal administration aimed toward ecological preservation

A mere 31 participants indicated contentment with the engagement of urban governance in environmental preservation, whereas 302 participants conveyed discontent. This indicates that citizens view urban environmental governance as inadequately anticipatory. Enhancing environmental planning, fostering citizen engagement, enforcing regulations, and promoting sustainable urban development initiatives may alleviate this issue.

DISCUSSION

The results of the current research suggest that environmental standards and local services significantly influence the quality of life for residents in the twin cities of Hubballi–



Dharwad. The feedback from 384 individuals indicates a predominantly low degree of contentment for the majority of the environmental metrics assessed. The significant number of participants indicating "not very satisfied" and "not at all satisfied" implies that environmental issues and inadequacies in municipal services persistently influence citizens' views on urban livability.

The results concerning air quality indicate significant discontent among the populace. A cumulative total of 271 participants said that they were either "somewhat dissatisfied" or "completely dissatisfied" with the air quality. This indicates that air pollution is regarded as a major issue in metropolitan environments. Urban air quality is intricately linked to transportation, traffic congestion, construction endeavours, industrial discharges, and various other pollution sources. The discovery aligns with the comprehensive quality-of-life viewpoint of the WHOQOL Group (1995), which regards the physical environment as a significant element of individuals' overall quality of life. An inadequate physical environment can negatively influence comfort, health, and contentment with one's living circumstances.

Correspondingly, the findings of noise pollution reveal considerable discontent. Approximately 63% of participants expressed either minimal satisfaction or complete dissatisfaction on the noise level. The cacophony produced by vehicular traffic, business operations, construction, and many urban endeavours can diminish residential tranquility and lead to tension and disruption. This discovery reinforces the multifaceted perspective on quality of life put forth by Felce and Perry (1995), who highlighted the significance of physical and environmental factors in total well-being.

The most significant discontent was noted around hygiene and sanitation. A total of 309 participants expressed dissatisfaction over the cleanliness of the cities. This discovery suggests that hygiene continues to be a significant issue for the populace and may signify challenges associated with littering, drainage, waste management, and the upkeep of communal areas. The outcome holds significant importance as residents directly perceive cleanliness in their daily surroundings. The prior evaluation of Hubli-Dharwad conducted by Paul et al. (2012) regarded sanitation, solid waste management, water provision, sewage systems, and environmental factors as vital elements of urban living standards.

The discontent regarding the cleanliness efforts of the Hubballi-Dharwad Municipal Corporation amplifies this issue. A significant proportion of participants conveyed discontent with the Corporation's efforts in urban cleanliness. This indicates that residents' views on their quality of life are shaped by both the city's physical state and the efficiency of local authorities in delivering essential services. The quality of life in urban areas consequently possesses a significant governance aspect. Patil and Sharma's evaluation of Indian towns also included fundamental facilities and infrastructural advancement as crucial elements of urban living standards.

The condition of public restrooms exhibited very low levels of satisfaction. Merely 11 out of 384 participants indicated

they were extremely or somewhat satisfied, whilst 346 expressed dissatisfaction. This serves as a prominent sign of insufficient urban sanitary infrastructure in the research region. Public restrooms are particularly crucial in heavily crowded metropolitan regions since they influence hygiene, respect, public health, and the general functionality of communal places. The discovery indicates that enhancing the quantity, accessibility, hygiene, and upkeep of public restrooms need to be a crucial element of urban quality-of-life enhancement initiatives.

The results related to domestic waste and refuse collection are relatively more advantageous than numerous other metrics, as this metric achieved the highest weighted score of 1111. Nonetheless, 297 participants continued to express dissatisfaction. This suggests that, while waste management is seen more favourably than certain other municipal services, there remains significant potential for enhancement. Consistent collection, source separation, conveyance, and methodical disposal of trash are vital for sustaining a healthy urban ecosystem. The discovery suggests that simply offering a service does not guaranty elevated citizen pleasure; the consistency, effectiveness, and calibre of the service are all crucial. The participants had a predominantly unfavourable opinion on the local government's dedication to addressing climate change. A just 15 participants indicated a degree of contentment, whereas 335 reported dissatisfaction. This indicates that individuals can view a lack of apparent initiatives in domains like sustainable transportation, energy conservation, urban afforestation, and climate-adaptive infrastructure. Modern methodologies for assessing urban quality of life increasingly acknowledge environmental sustainability as a fundamental aspect of urban welfare. Patil and Sharma (2022) incorporated environmental effect as a significant factor in their evaluation of quality of life in Indian cities.

The outcome regarding urban forests and green spaces is likewise significant. A significant majority of participants conveyed their discontent. Urban green areas offer avenues for leisure, enhance aesthetic surroundings, promote ecological equilibrium, and can bolster both physical and mental health. The exceedingly low satisfaction noted in this research indicates a necessity for enhanced focus on urban forestry, parks, tree canopy, and the preservation of current green spaces.

The state of water resources, such as lakes, ponds, and rivers, also garnered significant discontent. The metric achieved a weighted score of 1052, ranking as the second highest among the ten indicators, with 326 participants expressing dissatisfaction. This outcome indicates that the populace is apprehensive regarding the state, accessibility, and preservation of urban water bodies. Water resources possess both ecological and societal importance, enhancing the sustainability and habitability of urban areas. The discovery underscores the necessity for safeguarding urban lakes and ponds, mitigating pollution and encroachment, rehabilitating water bodies, and enhancing water-resource management.

Ultimately, the inadequate contentment with the engagement of urban governance in environmental preservation is notably pronounced. The majority of participants regarded



metropolitan governance as inadequately engaged in environmental preservation. This discovery suggests that enhancing environmental quality necessitates more than just infrastructure investment; it also demands robust institutions, enforcement, public engagement, and sustainable environmental strategies. The WHOQOL framework endorses this comprehensive viewpoint by considering the environment as a crucial domain of quality of life, which includes elements of the physical surroundings, availability of services, and opportunities for engagement.

The results of the current research align closely with the previous investigation by Hubballi and Shettar (2023) regarding the quality of life for residents of Hubli–Dharwad, which underscored shortcomings in essential amenities and the necessity for enhancements in the urban living conditions. Recent studies concentrating on the urban populace of Hubballi–Dharwad have similarly highlighted issues regarding living circumstances and urban livability, underscoring the necessity of analyzing individuals' opinions in conjunction with objective urban development metrics.

CONCLUSION

The current research investigated the quality of life for residents of the twin cities of Hubballi–Dharwad, Karnataka, focusing specifically on environmental standards and municipal services. The feedback from 384 individuals suggests that environmental factors play a significant role in assessing the overall quality of urban living. The results indicate a largely inadequate level of contentment regarding many environmental and civic-service metrics, including cleanliness, public restrooms, air quality, noise pollution, green spaces, water availability, climate-change efforts, and environmental management.

Among the assessed parameters, the collection of domestic waste garnered the highest weighted score, signifying superior performance in this domain. Nonetheless, the significant percentage of discontented respondents indicates that additional enhancements are necessary in waste-management services. Water resources garnered a comparatively elevated weighted score; yet, the significant number of discontented individuals suggests apprehensions about the preservation and upkeep of lakes, ponds, and other urban aquatic environments. The gravest issues were noted regarding the condition of public restrooms, sanitation, wooded and green spaces, climate change efforts, and urban environmental management. These results indicate that enhancing urban living standards cannot be achieved solely through economic advancement or physical infrastructure. Efficient sanitation, environmental conservation, accessible public amenities, pristine environments, green areas, and accountable municipal administration hold equal significance.

The research so determines that enhancing the quality of life in Hubballi–Dharwad necessitates a citizen-focused, inclusive, and ecologically sustainable strategy for urban development. The Hubballi–Dharwad Municipal Corporation and relevant entities ought to prioritize the enhancement of sanitation services, the improvement of public restrooms, the optimization of waste collection and disposal, the regulation of air and noise

pollution, the safeguarding of urban water bodies, the augmentation of green spaces, and the execution of tangible climate-resilience initiatives. Enhanced civic engagement in environmental planning and oversight can significantly bolster accountability and service provision.

In summary, the well-being of Hubballi–Dharwad residents is intricately linked to the calibre of their physical surroundings, civic amenities, and urban administration. Rectifying the recognized shortcomings would enhance not only the cleanliness and health of the city but also elevate citizen contentment, social welfare, and sustainable urban advancement. The results offer valuable insights for policymakers and urban planners in developing measures to enhance the livability, health, inclusivity, and sustainability of Hubballi–Dharwad as a twin city.

REFERENCES

1. Felce, D., & Perry, J. (1995). *Quality of life: Its definition and measurement*. *Research in Developmental Disabilities*, 16(1), 51–74. [https://doi.org/10.1016/0891-4222\(94\)00028-8](https://doi.org/10.1016/0891-4222(94)00028-8).
2. The WHOQOL Group. (1995). *The World Health Organization quality of life assessment (WHOQOL): Position paper from the World Health Organization*. *Social Science & Medicine*, 41(10), 1403–1409. [https://doi.org/10.1016/0277-9536\(95\)00112-K](https://doi.org/10.1016/0277-9536(95)00112-K).
3. The WHOQOL Group. (1998). *Development of the World Health Organization WHOQOL-BREF quality of life assessment*. *Psychological Medicine*, 28(3), 551–558. <https://doi.org/10.1017/S0033291798006667>.
4. Paul, S., Sridhar, K. S., Reddy, A. V., & Srinath, P. (2012). *Hubli–Dharwad*. In *The State of Our Cities: Evidence from Karnataka* (pp. 90–105). Oxford University Press.
5. Felce, D. (1997). *Defining and applying the concept of quality of life*. *Journal of Intellectual Disability Research*, 41(2), 126–135. <https://doi.org/10.1111/j.1365-2788.1997.tb00689.x>.
6. Sirgy, M. J., Michalos, A. C., Ferriss, A. L., Easterlin, R. A., Patrick, D., & Pavot, W. (2006). *The quality-of-life (QOL) research movement: Past, present, and future*. *Social Indicators Research*, 76, 343–466. <https://doi.org/10.1007/s11205-005-2877-8>.
7. Marans, R. W., & Stimson, R. J. (Eds.). (2011). *Investigating Quality of Urban Life: Theory, Methods, and Empirical Research*. Springer. <https://doi.org/10.1007/978-94-007-1742-8>.
8. Patil, G. R., & Sharma, G. (2022). *Urban quality of life: An assessment and ranking for Indian cities*. *Transport Policy*, 124, 183–191.
9. Hubballi, S., & Shettar, S. C. (2023). *A sociological study on status of quality of life among citizens of Hubli-Dharwad city*. *International Journal for Multidisciplinary Research*, 5(1).
10. Hubballi, S. (2026). *Urban residents' attitudes and perceptions regarding quality of life: An examination of Hubballi–Dharwad city*. *International Journal of Humanities and Social Science Research*, 12(3), 248–252.
11. Veenhoven, R. (2000). *The four qualities of life: Ordering concepts and measures of the good life*. *Journal of Happiness Studies*, 1, 1–39. <https://doi.org/10.1023/A:1010072010360>.
12. Cummins, R. A. (1997). *Comprehensive quality of life scale – Adult*. School of Psychology, Deakin University, Melbourne.



13. Diener, E., Suh, E., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276–302. <https://doi.org/10.1037/0033-2909.125.2.276>.
14. Pacione, M. (2003). Urban environmental quality and human well-being – A social geographical perspective. *Landscape and Urban Planning*, 65(1–2), 19–30. [https://doi.org/10.1016/S0169-2046\(02\)00234-7](https://doi.org/10.1016/S0169-2046(02)00234-7).
15. World Health Organization. (2012). *Environmental Health in Emergencies*. Geneva: World Health Organization.
16. World Health Organization. (2016). *Urban Green Spaces and Health: A Review of Evidence*. Copenhagen: WHO Regional Office for Europe.
17. United Nations Human Settlements Programme (UN-Habitat). (2020). *World Cities Report 2020: The Value of Sustainable Urbanization*. Nairobi: UN-Habitat.
18. United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York: United Nations.
19. Government of Karnataka. (2015). *Karnataka State Urban Development Policy*. Government of Karnataka, Bengaluru.
20. Hubballi-Dharwad Municipal Corporation. *Annual Reports and Urban Development Information*. Hubballi-Dharwad, Karnataka.