

**Ease of Living Index and the Master Plan of Delhi 2041****Priyanka Puri***Department of Geography, Miranda House, University of Delhi, Delhi, India***ARTICLE INFO***Article history***RECEIVED:** 3-Feb-22

Revised: 22-May-22

Accepted: 24-May-22

**PUBLISHED:** 15-Jun-22**\*Corresponding Author**

Priyanka Puri

E-mail: [priyanka.puri@mirandahouse.ac.in](mailto:priyanka.puri@mirandahouse.ac.in)

**Citation:** Priyanka Puri (2022). Ease of Living Index and the Master Plan of Delhi 2041. *Horizon J. Hum. Soc. Sci. Res.* 4 (1), 37–50. <https://doi.org/10.37534/bp.jhssr.2022.v4.n1.id1142.p37>.

**ABSTRACT**

A Master Plan in Indian urban scenario has a distinct sanctity of its own acting as the basis of city planning. Delhi was the first city in the country to generate its planning with a Master Plan since 1962 and next with perspectives for 2001 and 2021. Now, the new Master Plan with a perspective for 2041 is in public domain. Master Plan documents are taken as a representative of the intent of planning yet works examining the documentation of planning are not observable in literature. In this paper such an examination is attempted for Delhi's Master Plan of 2041 with reference to the 'Ease of Living Index' (2017) given by the Government of India for measuring the quality of life in Indian cities. The new Plan also advocates to generate a 'Delhi Liveability Index' for the city. The current analysis is done by attempting a qualitative and systematic review of the conceptual aspects of the Plan document with the Index as the basis of examination. The outcomes have been generated through the qualitative review without any personal opinions being incorporated. Findings indicate that the new Master Plan is heavily inclined towards physical planning components and one aspect of the Index is dominating its content. Such an examination can be insightful in generating details on perspectives of a policy document.

**Keywords:** Delhi, Master Plans, Planning, Qualitative, Ease of Living Index**Introduction**

Planning always has an association with rationality (Evans, 2001) and plans inform about 'intention' (Hoch, 2015). A Master Plan is taken as figurative, a blueprint and even a divine plan; which initially was more linked to politico-philosophical and even religious affairs (Firley & Gron, 2014). The concept can be said to have had philosophical beginnings and it has now become an internationally recognized method of urban planning (Firley & Gron, 2014). Evaluation in planning is also seen as an established branch of study (Khakee, Hull, Miller, & Woltjer, 2008) and forms the basis of wisdom in planning (Rabinovich, 2008). A Plan can be evaluated with reference to a certain course of action and that evaluation should not be mixed with giving value to the document (Lichfield, Kettle, & Whitbread, 2016). In this regard, a comprehensive evaluation of proposals of planning is

most valuable in providing information for scrutiny of actual decisions made (Lichfield, et al., 2013; Lichfield, Kettle, & Whitbread, 2016). Plan evaluation is observed for two reasons- the existing and non-existing (Alexander, 2006). The results of an evaluation procedure require to be given to policy makers in a managed form and the aims of evaluation depend on the purpose and interest (Nijkamp, Rietveld, & Voogd, 2013). Planning practices are also observed to be unable to satisfy existing requirements of cities as they are now more exposed to the effects of globalisation and this has increased vulnerability of cities and its citizens (Kok, 2013).

Planning theory is currently predominated by questions related to who gains from that planning, role of citizens in planning, and to maintain a balance between stakeholders (Silva, 2010). An evaluation process begins by defining what has to be evaluated, what is the evaluation

criteria, alternative for definition, criteria for definition, alternatives for analysis, determining scores, analysing scores and drawing conclusions (Nijkamp, Rietveld, & Voogd, 2013). The process of such a planning is supposed to be a part of urban planning (Greed, 2000). Master Planning concept can be observed to have occupied the urban planning scenario since World War II, in the 1950s and 60s when spatial planning was overwhelmingly conducted by blueprint generation (Todes, Karam, & Malaza, 2010) and this started gaining dominance since the turn of the 20<sup>th</sup> century (Bassett, 1938). This was particularly the post-war renewal period (Evans, 2001).

In his famous article- 'The Master Plan: An Impermanent Constitution', Haar describes the components and significance of the approach in urban planning. In this article, he reiterates the view that development programs of the 'New City' require a sound legislation and with the legal aspects, the Master Plan is a clearly observed 'element' (Haar, 1955) and that its provisions are reinforced due to its existence (Haar, 1955). There are four basic areas traditionally designated for impact by the Master Plan: Public works, Zoning, Subdivision and Streets (Haar, 1955).

## Background

The current examination initiates by discussing urban planning and evaluation in planning. The Master Planning concept is next forwarded with a literature review of evolution, components, significance and its limitations as a strategy in the context of urban planning. This is followed by a basic analysis of the focus of contents of all the Master Plan documents of Delhi till date. The Ease of Living (EoL) Index is detailed next with regards to its background and content. To cross examine the content of Plan documents with the EoL Index, qualitative methodology is attempted. The EoL Index document is coded with regards to its three Pillars- Quality of Life, Economic Ability, and Sustainability. The contents of the Master Plan are categorized into these codes using qualitative analysis software of MAXQDA. The output is diagrammatically represented and the results are discussed. The analysis initiated by observing the perspectives in which the various features of a Master Plan develop and attempts to identify which characteristics give them identity. Delhi's Master Plan documents are next observed for their contents followed by a detailing of the EoL Index. After this, the output of the analysis of Plan document with EoL is generated and discussed. A qualitative methodology is less observed in the context of analyzing documents.

In the light of above discussions, a Master Plan can be considered to be a long-term document which makes connections between the various parameters of an urban set up (Bank, n.d.). Plans, in general, are observed as forwarding the lawful and virtuous; while representing objectives, targets and advices of its creators and sponsors (Weber & Crane, 2012). Keeping this in consideration, Master Plans can play a significant role in creating the urban environment and in such a way planning can assume some or all of these roles:

- Develop a time-bound and implementation scheme and identify important points for action
- Act as a schedule for renewal and inspire private finance
- Gestate and shape the dimensions of urban scenario
- Explain spaces and amenities.
- Indicate the different uses and their corporeal relationship
- Engage the local community and act as facilitator of consensus building (Bank, n.d.)

A Master Plan can have vivid meanings which depend on the situation, but even then there exists a central explanation to it which relates to the fact that these documents are accepted as the method of dealing with land use issues and also, that as a concept, constantly practiced (Haar, 1955). It can be observed as a Plan for an area's development is based on the needs and resources available. Community participation in plan making is also advocated to be helpful in a number of ways (Jennings, 2004). So, it should basically depict the elements in the document related to community (Bassett, 1938).

Master Planning as a strategy is closely linked to the setting up of commissions in USA in the early 20<sup>th</sup> century (Firley & Gron, 2014) which were vested with the power to carry it out in practicality (Bassett, 1938). According to Haar (1955), the uses of a Master Plan are envisaged into six categories as follows:

- a. Provider of information- In this function, a Master Plan provides a picture of the existing conditions and probable future of the city. This can be supplemented by surveys. The significance of this aspect lies in the fact that even if the Plan is ill implemented or is not followed, these can provide an insight into the processes operating in the city and provide a 'balance sheet' of planning for further references.
- b. A correction balance sheet- Deficiencies, safety concerns, inadequacies and impacts can be examined for different aspects as per this point.
- c. Future estimator- Growth, goals, estimates, periodic modifications and review of developments are to be

- considered as per this aspect. This is required to fully utilize plan prospects.
- d. Goal reflector- Here, the target is to aim at a city which is actually as per the need of its dwellers. Plan is also highlighted as not just an end in itself but a means to direct city development. The Plan here becomes a 'blueprint of values'.
  - e. Systematisation method- A coordinated, balanced and harmonized development of the city is the target as per this concern and the Master Plan is taken as a medium to fulfil this over a period of time.
  - f. An instrument for generating public interest and responsibility- Mutually educating, identifying relevant issues along with public participation and ensuring public interest become a critical aspect of the Plan (Haar, 1955). In his classical work, 'The Master Plan', E.M. Bassett forwards that there are seven elements of planning land for a community as:
    - 'Streets
    - Parks
    - Sites for Public Buildings
    - Public Reservations
    - Zoning Districts
    - Routes for Public Utilities
    - Pierheads and Bulkhead Lines' (Bassett, 1938).
- philosophy, practice and recommendation of various components (Singh, 1978). The objectives of a Master Plan can be specific or non-specific as dealing with below:
- Overcrowding removal
  - Slum clearance
  - Managing urban expansion
  - Reclaiming low lying areas & waste lands
  - Reclaiming industrial areas
  - Integrated road system
  - Integrated water supply system
  - Integrated drainage and sewerage system
  - Metropolitan green belts
  - Open spaces in built up areas
  - Neighbourhood principle for development of residential areas
  - Reservation of suitable areas for different community needs
  - Utilisation of natural amenities
  - Stoppage of ribbon development
  - Preservation of historical monuments
  - Any other proposal with impacts on health, convenience and comfort of the people of the locality (Singh, 1978).

Land in all cases forms the base of Master Plans (Bassett, 1938). A Master Plan is taken as a realistic representation of planning rather than just being a hypothetical or theoretical proposition (Firley & Gron, 2014) and is helpful in preventing clashes between various agencies (Bassett, 1938). With all these, the Master Plan is termed as 'hortatory' and to make a plan is taken similar to planning (Haar, 1955). They not only influence development but have to make development happen. This can be done through four ways- 'public works', 'zoning', 'subdivision controls' and 'protection of mapped streets' (Haar, 1955). Besides, a number of functions have been allotted to master plans. They can act as a tool in law making, ordinance for regulating land use and guarding against the random processes (Haar, 1955). However, they also suffer from deficiencies particularly with regards to not only implementation but also in terms of adoption of other plans and ordinances such as zoning and subdivision plans which need not necessarily comply with them. The vagueness in preparing these Plans in itself is a problem (Haar, 1955).

Master Planning is comprised of steps in plan preparation which range from feasibility analysis to defining strategic goals, identifying planning priority sectors and the intricacies of planning these sectors (Bank, n.d.). The Master Plan is expected to evolve standards from consideration of the local with contemporary town planning

Subsequent upon the purpose and context, a Master Plan can have various denotations. 'Comprehensive Plan', 'General Plan', 'Municipal Plan', 'City Plan', 'Long Range Plan', 'Just Plan' are also used as similar terminologies (Haar, 1955). In its criticisms, Master Planning is observed to have many flaws. It is forwarded that Master Planning is unresponsive to majority of the citizen's requirements and expects that citizens 'adjust' to the Plan (Sarin, 2019). Further, there does not exist even a 'single example' in Third World cities where planning has been successful in meeting its set objectives (Sarin, 2019). Besides, the practice of planning is taken as something which cannot be deciphered, is a representation of human imperfections and as being out of reach (Firley & Gron, 2014). The Master Plan can also lead to a hindered development by affecting certain land uses (Haar, 1955). Thus, the strategy itself is rigid (Sandercock, 1990) and static (Friend & Hickling, 2002; Cerreta, 2003). Planning also lends itself to evaluation as without evaluation, planning process becomes unidirectional and this makes it inseparable as a part of decision making (Alexander, 2006).

### Overview of Delhi's Master Plans

In India, Master Planning strategy is observed to be 'subtle' yet 'significant' and introduced a shift in the

whole planning methodology (Sarin, 2019) This is particularly so as this method of planning was readily followed for planning of urban areas in the country. The process of planning of Delhi got initiation with the authoritative legislation titled 'The Delhi Development Act, 61 of 1957'. It lays the foundation of the Delhi Development Authority (DDA) through the Act. The composition of this authority indicates the dominant role of the central government in the process (Limited, 2011). Its significance for analysis lies in the fact that it puts forward the preparation of a Master Plan and Zonal Plans for the city (Limited, 2011). It states that the Master Plan shall:

- define the various zones in which Delhi may be divided for development and indicate the method in which the land in each zone is to be used with the steps by which any such work will be implemented;
- serve as a basic rubric within which the zonal development plans of these zones can be prepared and;
- The Master Plan can forward any other concern which is significant for the just development of Delhi (Limited, 2011).

The process of preparation of Master Plans for Delhi resides with one single authority- the DDA. Once approved, Master Plans appear as an obligatory document and a blueprint for fulfilment of planning of the city. Delhi, being the national capital observed its urban planning process initiating through these documents. The city has had three Master Plan documents- 1962, 2001 perspective, 2021 perspective and of recent, the one with perspective for 2041 (Authority, 2021). The first officially recognized Master Plan was that of 1962 and has been termed as the 'First Comprehensive Plan' (Authority, 1996). The modified document has been titled 'The Perspective Plan -2001' which is referred to in here as the Second Master Plan (Authority, 1996). Next in line is the Master Plan of Delhi (MPD), titled 'Master Plan for Delhi with the Perspective for Year 2021' which is referred to as the Third Master Plan. Now the fourth Master Plan, is in public domain for discussion – The MPD 2041.

Delhi was the first city in the country to have a Master Plan in independent India and also to adopt master planning strategy. Before the first Plan, an 'Interim General Plan for Greater Delhi' was prepared by the then Town Planning Organisation (TPO, now Town and Country Planning Organisation), Ministry of Health, Government of India in 1956. It was to 'provide necessities' for two years, till the Master Plan was prepared (Puri, 2013). The focus of this Plan was 'not to stand in the way' of the 'ultimate Master Plan' (Authority, 1962 a.). Although this was

not carried on as the master plan, it is important as the first systematic outline of planning of Delhi post-independence and many of its recommendations have been incorporated in Delhi's first Master Plan (Puri, 2013).

It indicated problems faced by the city, particularly after independence, and gave proposals regarding amenities and land use. A vast refugee population as required to be settled along with concerns for poor housing and slums. Some of the problems it indicated and which still exist are that of traffic and slums (Authority, 1962a.) The main propositions of this Plan lead to provisions for- Land Use, Residential, Business and Commercial, Industrial, Schools and Recreation, Circulation, Traffic and Public Utilities and Services (Authority, 1962 b.). The First Master Plan of Delhi (1962) was developed on Background Studies and was supposed to provide 'an all-India prototype' (Puri, 2013). The main issue forwarded by the Plan was that the gross density of the city was higher than desirable; for which 'The Delhi Imperatives' were given as the guiding factors for execution (Authority, 1962b).

These Imperatives dealt with economy, land, an active social component, citizen satisfaction and execution, and enforcement of the Plan (Authority, 1962b). The Plan begins with the history of Delhi in its first chapter followed by slum and squatter planning, rural urban migration, economy, land use survey and analysis. Setting up of eight Planning Divisions on the basis of characteristics of development was also proposed which are followed till date (Puri, 2013). With all this, the Plan attempted to make the city 'par excellence a government city' (Authority, 1962a).

Housing for low-income category, congestion, social infrastructure such as hospitals, schools, colleges and dispensaries; traffic and financial aspects, places of historical concern, environmental hygiene, improving slums, dumping grounds, public health and safety were further highlighted in the Plan (Authority, 1962b.). It also mentions a detailed land use plan for the city which provides suggestions for planning of the city's urban area, green spaces, highlights development of ring towns, residential densities, commercial areas, markets and others (Authority, 1962b.). Industry and manufacturing with layout norms for built-up area also find a detailed mention (Authority, 1962b.).

For the Second Master Plan, the DDA got a separate Planning Wing and the Plan preparation took place in five stages which comprised of surveys, seminars and formation of Working Groups for addressing specific concerns

(Puri, 2013). It initiates by mentioning about the National Capital Region (NCR). While recognizing that the growth of the city is unprecedented, it also suggests to limit industrial activity in the city, creation of employment opportunities, suggestions on the metropolitan area, details about housing provisions, environmental improvement, trade and commerce, organisation of markets, government offices, mass rapid transport and detailing of transportation system for the city. A Perspective Plan was first prepared on the basis of this. This Plan clearly mentions that it deals with the dos and don'ts and a time based and action-oriented strategy would determine its success. The city of Delhi was forwarded as a mark for the country and its regional significance finds a strong mention in this document along with other issues (Authority, 1996). Housing and socio-cultural infrastructure for sports, education, health and problem of air pollution find a specific mention. While recognizing the existing concerns, it also highlighted newer aspects of planning the city by advocating 37 use zones in nine categories of land uses such as residential, commercial, manufacturing, recreational, transportation, utility, government, public and semi-public and agriculture and water body and also advocated for Plan Monitoring (Authority, 1996). Layout norms for buildings and activities find a distinct mention. A specific chapter on Development Codes details the provisions on these land uses (Authority, 1996).

The Third Master Plan, with 2021 perspective, came into operation in 2007 and was formed on the basis of suggestions of 12 Sub groups (Authority, 2005, 2007). These dealt with Regional and Sub Regional Aspect, Demographic Profile and Population, Projections, Shelter, Trade and Commerce, Industrial Aspects, Environment and Pollution, Conservation and Urban Renewal, Traffic and Transportation, Social Infrastructure, Physical Infrastructure, Mixed Land Use and Development Controls (Authority, 2007).

At many places, it brings to the forefront the long existing problems of the city which are observed to be amplified over time. The Third Plan holds significance as it introduced the aspect of making the city World Class City and a Global Metropolis under the influence of globalisation (Authority, 2007). It basically draws upon the past experiences of the last Master Plan and has extended provisions for the same concerns. A new introduction on Disaster Management can be observed. Restructuring, upgradation, housing for poor, slums, residential use zones, details of land use in commercial areas are mentioned. Strategies for sewage management and water supply scenario of the city are discussed (Authority, 2007).

The current Master Plan, fourth in order, draws upon the last Plan experiences. It is divided into two volumes which are distinct in nature as compared to the earlier Plans.

The First Volume outlines a Vision for 2041 with an 'Enabling Policy Framework' and the Second Volume highlights a 'Spatial Development Strategy and Action Plan' for the city (Authority, 2021). It is now in the public sphere for discussion. Further divided into sections, the Plan focusses on the following:

#### **VOLUME I**

*Section 1: Environment*

*Section 2: Economy*

*Section 3: Heritage, Culture & Public Spaces*

*Section 4: Shelter & Social Infrastructure*

*Section 5: Transport & Mobility*

*Section 6: Physical Infrastructure*

#### **VOLUME II**

*Section 7: Spatial Development Framework*

*Section 8: Plan Monitoring & Evaluation*

*Section 9: Development Code & Development Control Norms*

It initiates by mentioning government initiatives in the form of urban programmes, including the 'Ease of Living Index' and highlights the position of Delhi in its regional framework (Authority, 2021). Prepared with the help of 'baseline assessment', background studies, SWOT analysis and opinions of people; the current Plan next identifies the Key Focus areas as- Environment, Water, Critical Resources, Mobility, Housing, Built Environment and Public Spaces, Heritage Assets, Vulnerability, Economic Potential, and Monitoring and Evaluation (Authority, 2021). Citizen health and mobility find a specific and repetitive mention. The vision for Delhi as 'Vision 2041', is to 'Foster a Sustainable, Liveable and Vibrant Delhi' (Authority, 2021). There are goals which will be pursued over the Plan period. Combined, the vision and goals will be achieved through six objectives pertaining to Environment, Economy, Heritage, Culture and Public Life, Shelter and Social Infrastructure, Mobility and, Physical Infrastructure (Authority, 2021).

It also lays down key directions related to Holistic Spatial Development, Strategic Approach to Development, Mixed use for Optimal Space/Land Utilization, Private Sector Participation in Development and KPI based plan monitoring (Authority, 2021). Public safety and mobility find a constant mention. Greening of areas, preservation of nature, tourism, creation of new open spaces, local management of waste, provisions for encouraging



physical activity, disaster preparedness and creation of plans for cultural management are other facets. Newer aspects have been added in the form of concerns for environmental assets- green and blue, addressing climate change to name a few. Further, detailed provisions have been given for economy, environment, spaces, mobility and other concerns. It is a detailed document highlighting the specificities of each of the sectors as focussed in the objectives through its volumes (Authority, 2021).

### About the Ease of Living Index (EoL)

Indicating that the world is facing an unprecedented urbanisation and that numerous schemes and initiatives of the government exist for the purpose, a method of data assisted governance really entitles cities to programme their decisions in near time by becoming fully conscious of the multitude of interplay between sectors (MOHUA, 2019). Introduced in 2017, it was introduced for the purpose of creating an index to enable a create a data driven perspective in urban planning and management. Also, to promote healthy competition among cities, the Ease of Living Index is identified as method of assessment to enhance well-being and an augmented 'liveability of 114 Indian cities across a set of 3 pillars, which include a total of 14 categories and 50 indicators on the subjects of Quality of Life, Economic Ability and Sustainability' (MOHUA, 2019) with the following objectives:

- 'Assess and compare the outcomes achieved from various urban policies and schemes
- Obtain the perception of citizens about their view of the services provided by the city administration
- Generate information to guide evidence-based policy making
- Catalyze action to achieve broader developmental outcomes including the Sustainable Development Goals' (MOHUA, 2019).

Developed by the Ministry of Housing and Urban Affairs in 2017, The Ease of Living Index, is a part of the three-fold strategy of the government from which 100 Smart Cities address this Index at the third, last, level using digital technology and optimum resource utilisation and are to be developed as 'lighthouses'. A citizen perception survey forms a significant component of the Index which maps the findings of the survey with citizens perceptions to check whether the idea of the citizens about city coincides with the outcomes of services (MOHUA, 2019). The Index has been developed further in 2019 with an additional Municipal Performance Index. It is a first of its kind initiative which attempts to scrutinise the

sectoral performance of municipalities across a set of 5 verticals namely 'Service, Finance, Planning, Technology and Governance' (India, 2021). These verticals have been classified into 20 sectors which will be appraised across 100 indicators.

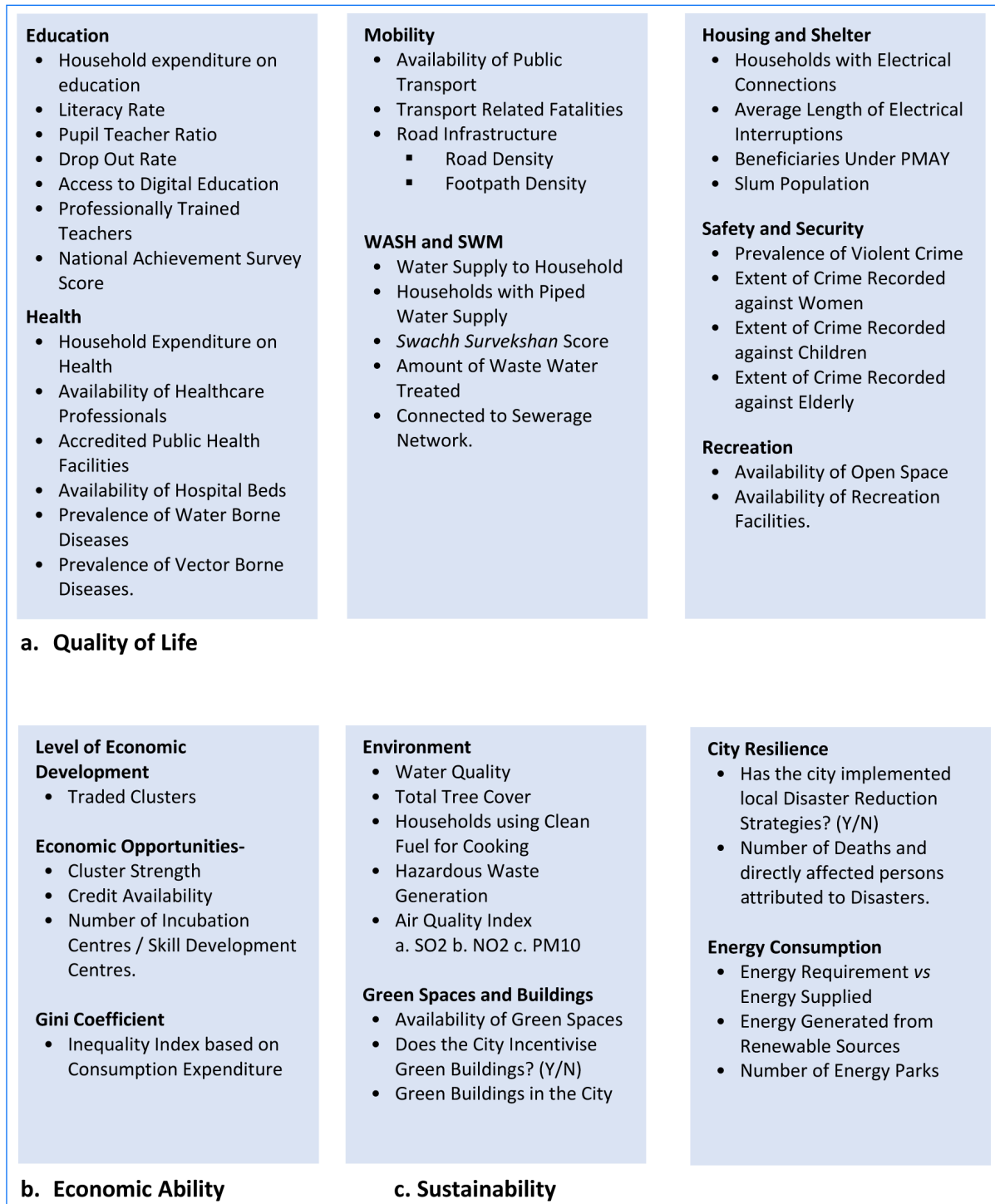
Along with a survey on citizen perception, these two indices target at providing an overall view of Indian cities emanating from the services given by local bodies, administrative effectiveness and service outcomes in terms of the liveability within cities. Scoring is done in three steps. These include - Data collection and validation (through cities data published from governmental sources and citizen service and validating the data provided by cities), Data transformation and scoring (Standardizing indicators making them comparable and scores the indicators based on the prescribed benchmarks) and, Computing index scores (Aggregating indicator scores to categorise scores for each city, applying weightages to these scores to obtain the score of the pillars and then combining these pillar scores to reach the 'Ease of Living Score'). This provides ranking for a city in the Index (MOHUA, 2019). The Pillars of the Index are:

- Quality of Life- This is the first pillar and reflects the availability of basic survival requirements such as safe housing, better sanitation and basic education and health facilities available to a citizen.
- Economic Ability- This is the second pillar which focuses on the economic basics of the individuals and city as a whole and takes into consideration the need for growth and change in terms of increase in wages, creation of greater employment opportunities and so on.
- Sustainability- This is the third pillar aiming at realizing the need for greener cities and an emphasis on reduction of energy usage.

The data for this Index, collected from the cities is validated through a citizen perception survey which carries 30 percentage weightage. The weightage in EoL is as follows- Citizen Perception-30%, Quality of Life- 35%, Economic Ability- 15% and Sustainability-20%.

These weights vary because of the varied number of indicators under each pillar, although there is no special significance attached to any pillar specifically (India, 2021).

In terms of methodology, the cities are first classified on the basis of population range. This is followed by data collection and validation through district level mapping and NSSO data. Scoring, statistical examination and standardisation are the next steps of score creation (MOHUA, 2019).



**Figure 1:** Details of the Sub components of the Three Pillars of Ease of Living Index  
 Source- Author, 2021 from MOHUA, 2019 (MOHUA, 2019).

To calculate the scores, each of the components of the Index are detailed further. The first report on liveability was published in 2018 in which Pune city topped the list with a liveability score of 58.11/100 against the national average of 35.64/100. The newer version of this Index in 2019-20 aims at an improved assessment over the earlier one. The current edition of the Index, while highlighting its significance as a statistical tool, suggests it to be a parameter to measure urban India’s progress towards

Sustainable Development Goals (SDGs), act as a guide to further measure urban progress, evaluate the outcomes of other urban policies and make citizens participants in the urban planning process by incorporating the element of citizens perception survey (India, 2021). Besides, city classification on the basis of population is done and followed for the Index. Cities of the country are divided by the Index into two categories as- ‘Million Plus’ cities and ‘Less than Million’ cities (India, 2021).

Linked to Sustainable Development Goals (SDGs), the Ease of Living indicators are also targeted to achieve these goals. The current average score of Indian cities as per the 2020 EoL report is 53.51/100 and Bengaluru city tops the million plus city list with a score of 66.70 (India, 2021) and Shimla with a score of 60.90 tops the less than a million city category (India, 2021). Delhi ranks at 13<sup>th</sup> place with a score of 57.56/100 (India, 2021). The report has also attempted comparison across the country, across regions and at the level of Pillars of EoL (India, 2021).

The Index has been criticized as being lopsided, questionable and being dependent on unreliable data base (Jain & Kundu, 2018). Despite promoting a competitive spirit among cities, it is observed as not reflective of the existing realities of Indian urban scenario as Indian cities are very complex (Vaidya, 2021). Good governance is, thus, not just an efficient management of services and infrastructures but is rather the ability of creating a general interest among public in maintaining the urban development processes without any particular interests (Girard, 2013).

### Extracting qualitative data from MPD 2041 and the Ease of Living Index

The Master Plan of 2041 as highlighted above, has developed newer concepts for suggesting planning components for the city. In this regard, the examination has been done for the Plan document on the basis of its content. Since the final draft is put up for public discussion, such an examination becomes more pertinent in observing the practice and planning perspective. Is planning of the national capital initiated on the basis of specific concepts, policies or is just random? While these questions, are not that simplified to answer, but the Plan documents do provide a clear idea from their contents with regards to the intent of planning. In the context of the national capital, this is more so pertinent as a capital city is generally taken as a representative city of the country and for the country (Lynch, 1960). For Delhi, since Master Plans provide the bulwark of planning with respect to the nature and direction of planning, the Plan documents do stand scrutiny in different ways. In the current analysis, MPD 2041 is examined for EoL. The examination is qualitative in nature (Ezzy, 2002), deriving interpretations and revealing the real from the interpreter's perspective (Jarvinen & Meyer, 2020).

To begin with, the Master Plan of Delhi 2041, broadly checked for its content provides an overview of the



**Figure 2:** Focus of Master Plan 2041 – Word Cloud

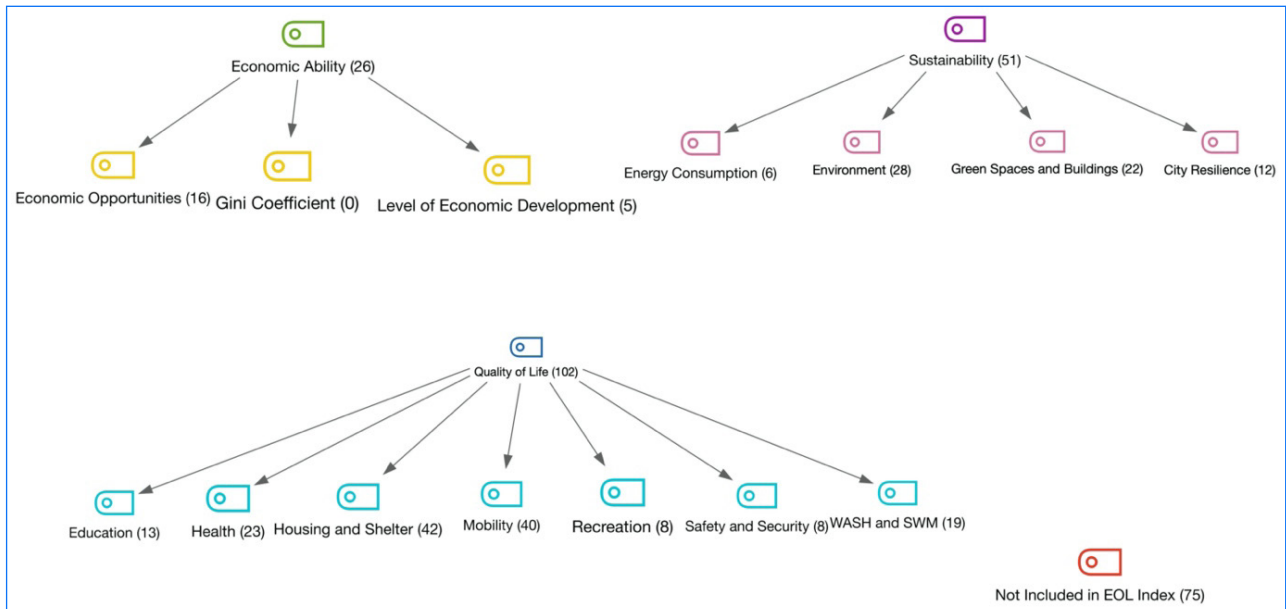
Source: Author, 2021

document. To initiate this, a word cloud has been generated to see the dominant content of the current Master Plan which exhibits the focal content in its terms of its occurrence in the Plan document and also reflected as word frequency in the document. The sizing of most repeated words in a document is indicative of its prevalence in the document. In this regard, MPD 2041 highlights the following:

Figure 2 clearly shows that the focus of planning in Delhi is physical space with the word 'Area/s' dominating the content. A word frequency of 893 + 524 words in total is observed for 'Area' and 'Areas' respectively. This is followed by the word 'Delhi' with a word count of 710 words. So, with regards to the focus of planning it can be forwarded that the physical space dominates the ideology of the Plan and that land is the focus of planning in different forms. It validates the concept that the base of planning is land to great extent. The connotation of 'area' is, however, beyond land as it signifies more of the functional aspect of the land component. Next, to extend this study to the EoL Index, coding methodology is followed for the document for its systematic observation. Coding method in qualitative analysis provides basis as to how to observe data, index it and categorise it to develop thematic content (Jarvinen & Meyer, 2020; European Social Science Data Archive, 2021).

In the current study, this method is the basis of preparing the document for analysis as with this a systematic analysis as required here can be developed. As per the qualitative methodology, the document is first coded directly with respect to the Pillars of the EoL Index. The EoL pillars





**Figure 3:** MPD 2041 – Distribution of Pillars of EoL Index  
 Source: Author, 2021

and its subcomponents are marked as codes. The contents of the Master Plan are next classified into these codes. The details of the Pillars of EoL to which MPD 2041 has been put to coding are as follows:

- **Quality of Life** – The content in the plan related to the sub components of Education, Health, Mobility, Water, Sanitation and Hygiene (WASH) and Solid Waste Management (SWM), Housing and Shelter, Safety and Security and Recreation is categorized into this code.
- **Sustainability** – The content in the plan related to Environment, Green Spaces and Buildings, City Resilience and Energy Consumption is categorized into this code.
- **Economic Ability** – The content in the plan related to Economic Opportunities, Level of Economic Development and Gini Coefficient is categorized into this code.
- **Not Included in EoL Index** – In this category are coded the contents of the Master Plan which are not a part of the EoL Index but are mentioned in the Master Plan document.

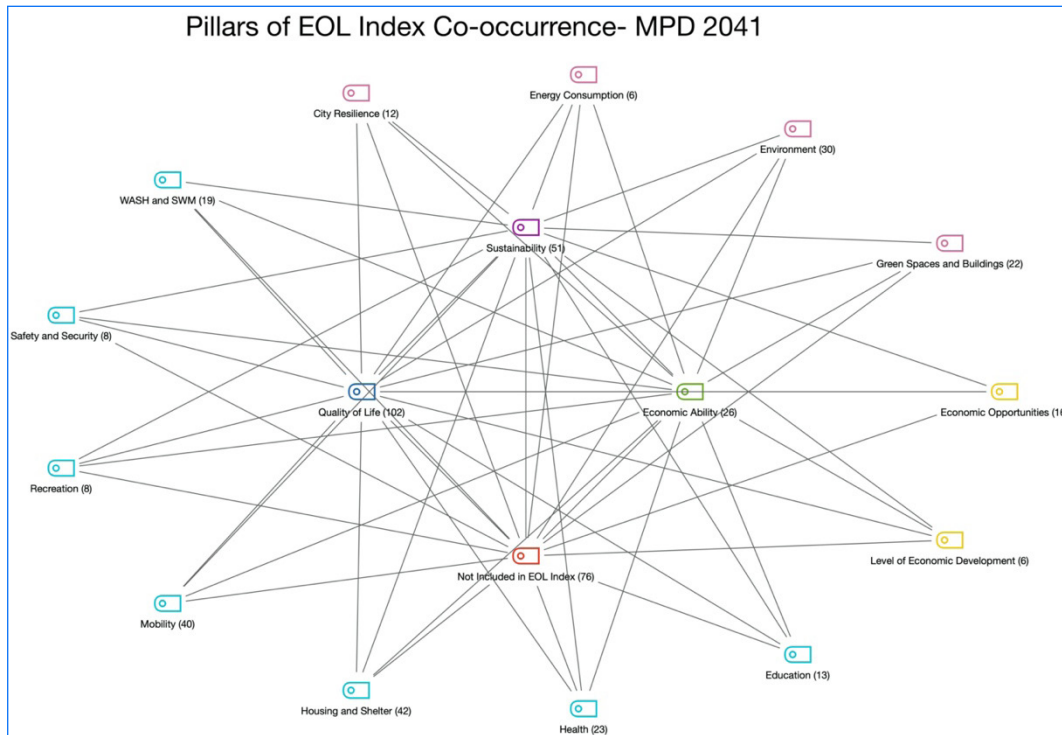
The Master Plan document is subjected to coding by marking the text as per the code system generated for the Pillars of EoL Index. For the 487-page document, 499 codes have been the outcome on the basis of pillars of EoL Index and the content of the Master Plan is categorized into these as observed in Figure 3. The document of MPD mapping gets broadly divided into the coded and non-coded part of the document. Observations indicate that some text falls into similar categories of as well due to the nature of content as planning provisions

are interrelated in nature. So, at certain places, the textual planning provisions overlap in nature and, therefore, simultaneously get categorized into categories more than one. Hence, the code totals do not reflect sub code totals. However, this does not alter the nature of content and analysis methodology. The non-coded part either includes tables, introductory text which does not command any categorisation and/or text in accessible due to formatting of the document. On the basis of the above method of coding, the document is examined in detail to see the distribution of the content as per these Pillars.

The observation on each of the codes can also be further detailed in terms of a code cloud. Figure 4. indicates the same. As can be observed from the cloud diagram, the code of Quality of Life shares the maximum content as proportion, followed by the ‘Not Included in EoL Index’



**Figure 4:** Pillars of EoL Index- Code Cloud  
 Source: Author, 2021



**Figure 5:** Content Co-Occurrence – MPD 2041 and Pillars of EoL Index  
 Source: Author, 2021

category in the document. Leaving these two categories, the rest of the codes and sub codes do not occupy that share in the document as these two thereby indicating their relative significance in the document and planning concerns.

If the content is cross examined for similarity analysis, then the codes indicate an inclination towards the EoL Pillar of Quality of Life, Mobility, Sustainability and Housing and Shelter as is observed in Figure 5. The Quality of Life Pillar shows a very dense relationship with the Mobility and Sustainability sub code and four corners of content concentration also evolve in the diagram from the content, classification as Sustainability, WASH and SWM, Mobility, and Not Included in EoL Index.

**Discussions**

It was observed that the content of the Master Plan of Delhi 2041 shows heavy inclination towards Quality of Life Pillar of EoL Index with maximum content observations recorded in this category. In this category further, the sub category of Housing and Shelter dominates the content. Closely following this, the text on Mobility occupies a major amount of content in multiple forms. It is more indicative of the fact that although the main aim of planning is to improve the Quality of Life in the City, it aims to achieve it through expansive Housing and Shelter

provisions and more mobility? Housing and shelter category includes multiple provisions.

These relate to the development of a Spatial Development Strategy and Action, major strategies and detailing of facilities, specific norms for guiding future spatial development of Delhi, Shelter & Social Infrastructure, Land Pooling for new area development, Development Code & Development Control Norms, norms for Floor Area Ratio (FAR), heritage buildings, construction of temporary structures for activities such as informal markets, food courts, cultural events, development-oriented norms, tenure and types of housing in Delhi, projections of housing requirements, regenerating existing areas and planned development of greenfield sites, meeting the challenges and requirements of unplanned areas in the city, improving housing options by providing affordable rental housing, enhancing built environment, safety and quality of life in old and unplanned areas, overall approach for improving housing supply, housing for urban poor and Slums/JJ clusters to be improved through in-situ slum rehabilitation.

It also suggests relocation provisions, resettlement colonies, promotion of rental housing, maintain a diversified rental housing stock and providing residents and migrants flexibility of tenure, geographical mobility and affordability, housing for a variety of income groups closer to workplaces, public agencies to develop a proportion

housing inventories as rental housing, reducing norms for plot area, setbacks etc., built-up area for essential, social infrastructure like primary health and education, amenities, FAR to be enhanced over and above the permissible FAR of regeneration scheme for unplanned areas; and provision of Gross Residential areas and provision of facilities as per norms in the Plan.

Land requirements for provision of internal roads/ infrastructure/ services (including water supply lines, power supply, rainwater harvesting, STP, etc.) as earmarked in the layout plan will be met equitably by all; integrating mobility with housing and shelter, parking and housing, plots set apart for local level health and education facilities, minimum area requirements as per the Plan shall be applicable for development of any use premises, innovative ways for achieving a vertical mix of uses (residential, commercial, and industrial) within a building, Additional Development Controls, variance in applicable FAR at Sector Level and others (Authority, 2021).

Mobility provisions fall into different categories as related to parking, Transit Oriented Development (TOD), cycling tracks, improving connectivity, making Delhi walkable and cyclable, pollution, efficient mobility, low carbon mobility, walkable plans for public spaces, electric vehicles, transit hotspots, Integrated Freight Complexes (IFCs), International Airport, robust public transport, technology-based interventions for facilitating, local street provisions and others. Provisions for Housing and Shelter are related to Spatial Development Strategy, Action Plans, spatial development of the city with both green field and brown field development, land pooling, green development area, regeneration of planned and unplanned areas, transit-oriented development, strategic regeneration, shelter and social infrastructure, prioritizing shelter, National Urban Mission and others.

Another notable observation is that the Master Plan does contain significant content which is not a part of the EoL Index. This particularly involves aspects related to heritage, culture, layout, building, premises and social aspects. Building control and land development norms form a major part of the document which are specific to the city of Delhi. This detailing is not a segment of EoL Index in any form. MPD 2041, like all other Master Plan documents forwards these in detail for multiple activities and land uses. Also included in this category are innovative technologies for city transport, sports facilities, Development Control Norms, socio-cultural facilities, Green and Blue features, FAR, Multi Agency Coordination, Development Control Norms, Layout Plans, Creation of Use Zones, Public Space Networks, temporary festival

circuits, regeneration projects, heritage, improving public spaces, and so on (Authority, 2021).

Gini Coefficient of the Economic Ability pillar does not find any mention in the document. Gini coefficient as a measure of inequalities (Hayes, 2021) is not dealt in Master Planning of the city; although the Plan harps on reducing housing inequalities and creation of new economic opportunities in Delhi.

Components of sustainability occupy the next position and in this category Environment and Green Space and Buildings share a majority of provisions as covered in the Plan document. It is also interesting to note that green and open spaces are discussed in a number of ways and at many places, this is clubbed with environment and building layout provisions for planning. Focus on environment is in the form of green and brown field development in the city, land pooling area, green development area, regeneration of planned and unplanned areas, recreation, work, residence or short stay options, enhancing Delhi's attractiveness as a global cultural and economic hub, improving quality of greens, prioritizing environmental sustainability, identification of green and blue assets (natural and planned) as Green-Blue infrastructure, discussions on climate change, green mobility, Noise Pollution Action Plan and others.

The Pillar of Sustainability shares the next dominant category of content with Environment and Green Spaces and Buildings having the maximum content in this order. Provisions for Environment of Delhi are advocated separately in a chapter and besides this, there are a number of places where the content on environment is observed with other categories of provisions. Environmental concerns for Delhi are highlighted in a lot of detail and these relate basically to addressing pollution and climate change and enhancing Green-Blue Infrastructure. Environmental Sustainability is the foremost goal for city's planning, preservation and improvement of natural green and blue assets, improving peoples connect with nature, special initiative for rejuvenation of Yamuna and its floodplains, green buffers, special greening projects, recharging aquifers and promoting water sensitive urban design (Authority, 2021).

Further, for the Pillar of Economic Ability, the Plan aims to achieve it through providing and enhancing economic opportunities. With a dedicated chapter also on Economy, it highlights that the city stands as an economic hub both regionally and globally. The key concerns relate to the creation of 'Places of Economic Production' through clean economies, green economies, enabling provisions, diversification, creation of new economic centres as Business

Promotion Districts, Green Development Area, promoting Night Time Economy, supporting the informal sector, enhancing trade and commerce and enabling provisions for trade and industry (Authority, 2021). The examination of codes and sub codes also provides an idea of the pre dominance of pillars of the Index. This is helpful in examining the dominant content in the document as observed from the EoL Index perspective. As per the Index, Delhi does not rank in the top 10 cities (India, 2021).

## Conclusion

The above examination highlights that the planning of capital city is highly focussed on land and development control provisions. While its visions and objectives indicate towards a holistic development and considers to make the city liveable and vibrant, the approach is directed towards certain aspects. The EoL Index which measures the liveability of Indian cities stands as a unique examination as it is a newly emerging concept. Although not an end in itself, the Index can provide a means to introspect actually urban practices of which Plans are the reflectors of the nature and direction as is observed in the current analysis.

## Acknowledgements

The author wishes to thank the editors and reviewers of Horizon JHSSR Journal who have provided an opportunity to publish in their scholarly journal.

## Funding

The author received no financial support for the research, authorship and/or publication of this article.

## Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. This article is the sole work of the author and has not been presented or published elsewhere.

## References

Alexander, E. R. (2006). Evaluation and Status: Where is Planning Evaluation Today and How Did It Get Here? In E. R. Alexander. Ashgate Publishing Limited.

- Authority, D. D. (1962) a. *Delhi Master Plan, 1962*. Delhi: Delhi Development Authority.
- Authority, D. D. (1962) b. *Work Studies Relating to the Preparation of the Master Plan of Delhi. Vol. One, 1962 (1)*. Delhi Development Authority.
- Authority, D. D. (1996). *Master Plan of Delhi with the Perspective for the Year 2021*. Delhi Development Authority.
- Authority, D. D. (2007). *Master Plan for Delhi- 2021*. Delhi Development Authority.
- Authority, D. D. (2021). Retrieved 2021, from [www.dda.org.in:https://dda.org.in/MPD\\_2041.aspx](http://www.dda.org.in:https://dda.org.in/MPD_2041.aspx)
- Authority, D. D. (2005). *Sub Group Reports for Master Plan of Delhi-2021*.
- Bank, W. (n.d.). <https://urban-regeneration.worldbank.org/node/51>. Retrieved 2021, from [www.worldbank.org](http://www.worldbank.org).
- Bassett, E. M. (1938). *The Master Plan*. Russell Sage.
- Cerreta, M. (2003). "Introduction to Part II." In *The Human Sustainable City: Challenges and Perspectives from the Habitat Agenda*, edited by L F Girard, B Forte, M Cerreta, P D Toro and F Forte. Ashgate Publishing Ltd.
- DDA. (1996). *Master Plan for Delhi: Perspective 2001*. Delhi Development Authority.
- European Social Science Data Archive, C. o. (2021). <https://www.cessda.eu/Training/Training-Resources/Library/Data-Management-Expert-Guide/3.-Process/Qualitative-coding>. Retrieved 2021, from <https://www.cessda.eu>.
- Evans, G. (2001). *Cultural Planning: An Urban Renaissance?* Routledge.
- Ezzy, D. (2002). *Qualitative Analysis*. Taylor & Francis.
- Firley, E., & Gron, K. (2014). *The Urban Master Planning Handbook*. Wiley.
- Friend, J., & Hickling, A. (2002). *Planning Under Pressure: The Strategic Choice Approach*. Butterworth-Heinemann.
- Girard, L. F. (2013). Conservation of cultural and natural heritage: Evaluation for Good Governance and Democratic Control. In A. Khakee, A. Barbanente, A. Prat, D. Borri, & N. Lichfield, *Evaluation in Planning, Facing the Challenge of Complexity* (pp. 25–50). Springer Science+ Business Media, B.V.
- Greed, C. (2000). *Introducing Planning*. Transaction Publishers.
- Haar, C. M. (1955). The Master Plan: An Impermanent Constitution. *Law and Contemporary Problems*, 3, 353-418.
- Hayes, A. (2021). <https://www.investopedia.com/terms/g/gini-index.asp>. Retrieved 2021, from <https://www.investopedia.com>.
- Hoch, C. (2015). Making Plans. In R. Weber, & R. Crane, *The Oxford Handbook of Urban Planning* (pp. 241-258). Oxford University Press.



- India, G. o. (2021). <https://Eol.smartcities.gov.in/dashboard>. Retrieved 2021, from <https://Eol.smartcities.gov.in>.
- Jain, D., & Kundu, T. (2018, August 23). Why Ease of Living Index rankings fail to inspire confidence . *Mint*.
- Jarvinen, M., & Meyer, N. M. (2020). Analysing Qualitative Data in Social Science. In M. Jarvinen, & N. M. Meyer, *Qualitative Analysis- Eight Approaches for the Social Sciences* (pp. 2-23). Sage.
- Jennings, J. (2004). Urban Planning, Community Participation, and the Roxbury Master Plan in Boston. *The Annals of the American Academy of Political and Social Science*, 594(1), 12-33.
- Khakee, A., Hull, A., Miller, D., & Woltjer, J. (2008). Introduction: New Principles in Planning Evaluation. In A. Khakee, A. Hull, D. Miller, & J. Woltjer, *New Principles in Planning Evaluation* (pp. 1-18). Ashgate.
- Kok, T. (2013). "Resilience Thinking" for Planning. In T. Kok, & T. Eraydin, *Resilience Thinking in Urban Planning*. Springer Netherlands.
- Lichfield, N., Barbanente, A., Borri, D., Khakee, A., & Pratt, A. (2013). Conservation of Cultural and Natural Heritage. In L. F. Girard, & L. F. Girard, *Evaluation in Planning: Facing the Challenge of Complexity*. Netherlands: Springer.
- Lichfield, N., Kettle, P., & Whitbread, M. (2016). *Evaluation in the Planning Process* (Vol. 10). Pergamon Press.
- Limited, U. L. (2011). *Delhi Development Act, 1957*. Universal Law Publishing Company Private Limited.
- Lynch, K. (1960). *The Image of the City*. Harvard University Press.
- MOHUA.(2019).<http://amplifi.mohua.gov.in/assets/html-landing/pdf/EoL.pdf>. Retrieved 2021, from <http://amplifi.mohua.gov.in/>.
- Nijkamp, P., Rietveld, P., & Voogd, H. (2013). *Multicriteria Evaluation in Physical Planning*. Elsevier Science Publisher.
- Puri, P. (2013). Delhi's Master Plans- 1962, 2001 and 2021; A Critical Analysis. Delhi University.
- Rabinovich, A. (2008). Innovation in "Urbanism" Thinking: Spectrum and Limit. In G. Pflieger, L. Pattaroni, C. Jemelin, & V. Kaufmann, *The Social Fabric of the Networked City* (pp. 131-156). EPFL Press.
- Sandercock, L. (1990). *Property, Politics and Urban Planning: A History of Australian City Planning, 1890-1990*. Transaction Publishers.
- Sarin, M. (2019). *Urban Planning in the Third World: The Chandigarh Experience*. Taylor & Francis.
- Silva, C. N. (2010). The E- Planning Paradigm-Theory, Methods and Tools: An Overview. In C. N. Silva, *Handbook of Research on E-Planning:ICTs for Urban Development and Monitoring*. Information Science Reference.
- Singh, K. N. (1978). *Urban Development in India*. Abhinav Publications.
- Todes, A. A., Karam, N., & Malaza, N. (2010). Beyond Master Planning? New Approaches to Spatial Planning . *Habitat International*, 34, 414- 420.
- Vaidya, C. (2021, March 11). *As Ease of Living Index 2020 is Released, A look at the relevance of 'liveability' in India, and hat it entails*. Retrieved from [www.firstpost.com](http://www.firstpost.com).
- Weber, R., & Crane, R. (2012). Planning as Scholarship: Origins and Prospects. In R. Weber, & R. Crane, *The Oxford Handbook of Urban Planning* (pp. 3-24). Oxford University Press.

### Biographical Statement of Author(s)

**Dr. Priyanka Puri** is an alumna of Miranda House. With a teaching experience of more than fifteen years in the University, she has an ardent interest in teaching, learning and research in Geography and has supervised research works, contributed nine books, research publications and chapters in literature of repute in the discipline. Awarded Junior Research Fellowship in Geography (UGC) and a consistent rank holder in academics, she was also the topper in all



India entrance examination for M.A. in Geography (Delhi University) with selections in M.A.in Geography entrance examinations at the national level and was merit scholarship holder through B.Ed. entrance examination.

With other interests involved in writing, learning new languages, outdoor sports and culinary; she has also been awarded for distinction in Hindi in A.I.S.S.C.E. examination, awarded thrice in writing competition at all India level by the Delhi Government, awarded silver medal in a writing competition by The Society for Upliftment of Masses (an NGO with special consultative status with ECOSOC, UN) and was awarded the First All Round Student Award by the Dept. of Geography, Miranda House.

To edify further, Dr. Puri has attained about 50 online and offline certifications in disciplinary and interdisciplinary courses from reputed institutes from India and abroad. She has been recently elected as one of the two Executive Members of the prestigious Ocean Society of India for its first Delhi-NCR Chapter and is also a member of societies and institutions focusing on disciplinary and academic concerns. Dr. Puri seeks to contribute to the discipline of Geography through teaching and research.

**Associate Professor Dr. Priyanka Puri**

Miranda House  
University of Delhi  
New Delhi 110007  
India

**Email:** [priyanka.puri@mirandahouse.ac.in](mailto:priyanka.puri@mirandahouse.ac.in)