Planning for a Happy City in Kochi Smart City ABD Area, Fort Kochi – Mattancherry Region.

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ABSTRACT: Happy city is a concept of a city where residents can experience joy, wellbeing and overall sense of happiness (SEPE, 2017). Mental health problems are becoming more prevalent among urban residents every day. One of the reasons is that the city does not offer the facilities required for people to be happy (Jagannath, 2019). The study includes understanding the concept of happy city and analyzing the factors affecting the of happiness in an urban setup. The various case examples of cities such as Bhutan, Chandigarh and Finland were its citizens experience higher levels of happiness are studied in detail to identify the parameters. Also deriving a methodology for accessing urban areas on the basis of Happiness Index, with Kochi city as a case example. The methodology was based on evaluating the components of happy city design based on the enablers of happy city as suggested by the global happiness and wellbeing policy report of 2019. Finally, understanding the opportunities for improving the quality of life in cities, based on the identified challenges for achieving the ideal happy city through improved urban infrastructure, much healthy community gathering spaces to enhance emotional bonding, better connectivity though efficient transport system, providing walk-able neighbourhood, geriatric-friendly and disabled-friendly infrastructure, services and amenities. Thus, planning for the society rather than the conventional planning method of orderly placement of elements of an urban area. Hence Happy city is the perfect city of the future.

KEYWORDS: Happy city, Disabled-friendly, urban setup, Quality of life.

I. INTRODUCTION

According to the idea of "happy city" the most crucial infrastructure in any city is its emotional infrastructure. Through urban planning, the idea of a city as a joyful place for its residents to live is made possible, regardless of their age, gender, race, economic situation, and disabilities (Huemer, 2019). Cities are physical constructions, but when they can provide for their citizens, they transform into happy cities where residents feel more safe, comfortable and at ease in an environment that is intellectually stimulating (Jain, 2019). The concept of happy cities is gaining popularity all over the world. The aim of such a city is to experience joy, well-being and sense of happiness among its residents. This idea gives locals a positive impression of their community and encourages them to visit or decide to go back there after having the same experience. (SEPE, 2017).

The Sustainable Development Solutions Network (SDSN) is a non-profit organization established by the UN to pursue the goals of sustainable development in 2012. This organisation publishes the World Happiness Report (WHR). It is a significant assessment of the global state of happiness. This report includes a variety of rankings and articles on national happiness. As of March 2022, Finland had won the title of world's happiest country for five consecutive times. The UN General Assembly adopted the resolution 65/309, "Happiness: Towards a Holistic Definition of Development," in July 2011 requesting nations to conduct polls on the happiness of its citizens and use these results to modify public policy. The first High Level Meeting of UN, entitled "Well-being and Happiness," was held on 2nd April, 2012, and was presided over by Secretary of the UN and Prime Minister of Bhutan.

On 1st of April, 2012, the first report of World Happiness was released. It gave a general summary of the level of happiness throughout the world. The 2nd report got published in 2013 and following that the 3rd report was published in 2015. Since 2016, it has been made available annually on March 20 which is the UN's International Day of Happiness.

Understanding and assessing the variables affecting urban living quality is another aspect of the study. Additionally, there are modifications that can be made to enhance urban happiness among the residents, which is accomplished by studying the best practices for creating the ideal happy city. Planning for society is thus preferred to the traditional planning approach of arranging urban area components in a systematic manner. Happy City should therefore be supported because it is the ideal city of the future.

1.1 Need and feasibility of the study

A city that prioritises community wellbeing over a smart city built on resources, infrastructure, technology, and government has become the necessity of the hour. This idea developed based on how different urban planners approached and worked for creating the perfect city, as Charles Montgomery proposed in his book "The Happy City."Happy City places a high value on its citizens' emotional health, making a city where people may live authentically. Other urban planning ideas like "green city," "smart city," are related to "happy city." As a result, it is essential to the development of society and the economy.

It is long past time to put improved planning ideas into practice in a developing nation like India. Thejas Jagannath claims that "Far too many citizens suffer from mental health concerns because the city does not offer the resources essential for people to be happy" in her blog post.Currently majority people live in cities than in rural areas for the first time in history. Additionally, the UN estimates that by 2050, an additional 2.5 billion people will reside in cities. (Urbanism and the Pursuit of Happiness, 2019).

Compared to people who live outside the city, urban residents have a 20% increased chance of acquiring depression. In the meantime, people who live in cities are 77% more likely than those who live in rural areas to have psychosis, a severe psychiatric disease characterized by hallucinations, delusions, paranoia, and disordered thought. Additionally, those who live in cities have a 21% higher risk of getting generalised anxiety disorder (Mechelli, n.d.). Numerous elements of the urban environment enhance the chance of acquiring these issues, according to epidemiological studies. Some of these draw attention to possible issues with the built environment, like restricted access to green spaces and significant levels of noise and air pollution. Others are social in nature and include social injustices, criminality, and loneliness.

It's crucial to understand that the elements of the urban environment that raise the risk of mental illness are not inherent nor unavoidable features of urban life. Instead, they are the outcome of subpar design, administration, and planning, and they might be undone. When people have access to high-quality housing and green spaces, the prevalence of depression in urban settings is reduced. (King's College London, n.d.).

India lacks well-maintained public squares and central public places that encourage cohesion among its population, and its pedestrian routes are in poor condition and do not enable continuous walkability. Another problem that affects the standard of living in urban areas is the existing level of social and spatial inequality. Absence of a public bicycle hub, lack of a sports facility, lack of pollution control, lack of support for small and cottage industries, and a subpar waste and water management system are all examples of poorly constructed public transportation systems. Therefore, India has the potential to become a happy city by focusing on these aspects.

1.2 Criteria for selection of study area

Kochi smart city ABD area was selected for the study as many characteristics of smart city leads to happy city. The top city among the ten joined to the Center's Smart Cities Mission in 2016 is Kochi. The average literacy rate in Kochi City is 96.29%, higher than the urban literacy rate in Kerala State (95.11%).

According to the Ministry of Housing and Urban Affairs' Ease of Living Index for 2020, Kochi is ranked 39th out of all cities having a population under a million. The city received 61.39 out of a possible 100 points to win the 'governance' component of the Municipal Performance Index. In terms of total municipal performance, it is placed 12. The city's quality of life, economic viability, sustainability, and resident perception have all been evaluated in the study. According to district-level per capita gross state value, Kochi ranks first and has a per capita income growth rate that is 7.9% higher than the state growth rate. All these records suggest that the city has the potential to develop into a happy city.

Unplanned urban growth is hurting Kochi's residents' quality of life.According to the 2011 Human Development Report, the urbanisation

rate is 68% and the population growth rate is 5.69%.

According to the District Mental Health Programme (DMHP), moderate to severe depression affectsroughly 25% of the population. Thus, it is a necessity to plan for the wellbeing of its citizens.

1.3 Significance of happy city

The happy city ranking is based on the self-reports of city residents about how they personally assess the quality of their lives, as opposed to a list of variables that researchers believe to be significant. By emancipating respondents in this way, it allows individuals to decide for themselves which factorsobservable or invisible to researchersmatter most to them. It may be argued that this bottom-up strategy offers the people a direct voice for selecting what is important for the wellbeing of city people. Importantly, using the results of well-being surveys is a method that enables us to gain a more comprehensive understanding of the factors that influence happiness. In actuality, using well-being surveys makes it possible to determine the relative significance of various domains in determining well-being, giving politicians evidence-based advice on how to maximise the well-being of their communities.

1.4 Research question
* How to achieve a higher happiness index through a better planning of urban areas?

1.5 Aim
* To identify the enablers for improvement for achieving a Happy city through effective planning of Kochi ABD area.

1.6 Objectives
* To study and analyse the concept of Happy Cities and its parameters.
* To evaluating planning of Kochi ABD area in terms of Happiness parameters identified.
* To identify the enablers for improvement for achieving a Happy city through effective planning of Kochi ABD area.

II. LITERATURE REVIEW
2.1 Happiness index

This Index is a thorough survey modality that evaluates resilience, sustainability, and happiness. Community organisers, researchers, and anyone looking to use a well-being statistics and index can use this index as a survey tool. This tool can be used to gauge happiness with one's life and living circumstances. (Musikanski, L., Cloutier, S.,

Bejarano, E., Briggs, D., Colbert, J., Strasser, G., & Russell, S. 2017).

This index assesses life satisfaction, happiness, and other happiness-related factors, such as psychological well-being, physical health, social support, community, time balance, arts, culture, education government and employment. (Happiness Alliance, 2014).

2.2 Global happiness and wellbeing policy report (GHWPR).

The Global Happiness Council (GHC) prepares the 2019 GHWPR. This paper offers data and policy suggestions on the most effective ways to foster happiness and wellbeing.

According to this study, the first group of topics examines how happiness is related to city design, namely the physical elements such as, Urban design & place making, Nature, Mobility, andConceptual elements such as Sustainability & Partnership, Culture and Service. The city's enablers of happiness, which are frequently linked to the results, are described in the second set.

Figure 1 Enablers of Happy cities.
Source: Global Happiness and Wellbeing Policy Report 2019

III. CASE STUDY

Finland, Chandigarh and Bhutan were studied. According to the World Happiness Report, Finland has been named the happiest country in the world for the fifth year in a row. The nine parameters that were considered in Finland to attain happiness index included sustainable development, social justice, global prosperity, clean city, good government, freedom, trust, equality, work-life

balance and education. Chandigarh is considered to be the happiest city of India, according to a study commissioned by LG and conducted by IMRB International. The study considered factors such as Pursuit,

Purpose, Pleasure, PassionandContext,which relates to the surrounding socioeconomic situation.

The Kingdom of Bhutan invented the idea of gross national happiness (GNH) in response to efforts to utilise Gross National Product as the primary aim and indicator for the government. The GNHI is used in Bhutan to calculate GNH. The Bhutanese Gross National Happiness Commission, ensures that all development programmes and plans are developed and implemented in accordance with GNH principles.

The four pillars of GNH are ecological sustainability, preservation and promotion culture, good governance and equality, sustainability and equitable socio-economic development.To clarify the idea of GNH, these four pillars contain nine domains as its subgroups. Additionally, there are 33 indicators throughout these nine categories. There are many variables in each of the 33 variables that make up the gross national happiness index. Each of these factors contributes to the citizens' increased wellbeing and consequently higher level of living.

According to the legal definition found in Article 9 of the Bhutanese Constitution from 2008, the State is mandated to "promote those conditions that will permit the achievement of Gross National Happiness" (Karma Ura et all, 2013).

Weighting and Methodology All of the domains have an equal index weightage. In order to determine if a person is happy, the index used two different types of thresholds:
• Sufficiency threshold (ST)
• Happiness threshold (HT)

ST indicate the minimum amount required for a person to enjoy sufficiency in the thirty-three indicators. The HT aims to provide a response to the query, "What percentage of the thirty-three indicators must a human being attain in order to be understood as happy"?

Table 1 Gross National Happiness

Domain	Indicators	Weight	Domain	Indicators	Weight
Psychological wellbeing	Life satisfaction	33%	Time use	Work	50%
	Positive emotions	17%		Sleep	50%
	Negative emotions	17%	Good governance	Political participation	40%
	Spirituality	33%		Services	40%
Health	Self reported health	10%		Government performance	10%
	Healthy days	30%		Fundamental rights	10%
	Disability	30%		Donation (time & money)	30%
	Mental health	30%	Community vitality	Safety	30%
Education	Literacy	30%		Community relationship	20%
	Schooling	30%		Family	20%
	Knowledge	20%		Wildlife damage	40%
	Value	20%	Ecological diversity & resilience	Urban issues	40%
Cultural diversity & resilience	Zorig chusum skills (Thirteen arts & crafts)	30%		Responsibility towards environment	10%
	Cultural participation	30%		Ecological issues	10%
	Speak native language	20%		Per capita income	33%
	Driglam Namzha (Etiquette)	20%	Living standard	Assets	33%
				Housing	33%

Source: Gross National Happiness USA

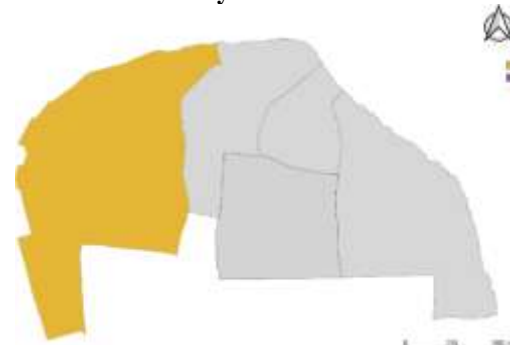## IV. ANALYSIS AND RESULTS
4.1 Ward wise survey Inference

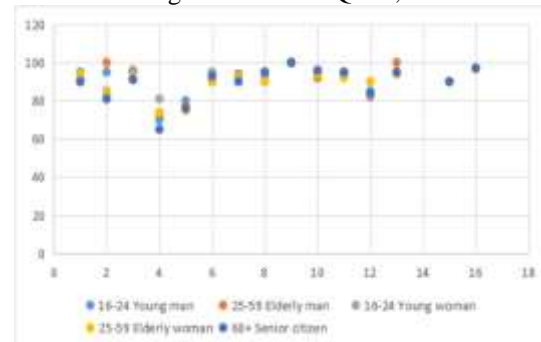Figure 2 Ward 1 Fort Kochi
Source: Author generated with QGIS,2023.

Figure 3 Survey result
Source: Author generated with Excel,2023

Ward 1 of the ABD area for development is Fort Kochi. The ward has a total population of 10279, with 3156 female population and 2620 being male population.

In Fort Kochi citizens were happy about the sociability of the area of which the senior citizens were found to be the happiest. Citizens trusted the mobility services but were unhappy about the safety and security, women were the most unhappy of the group.

Figure 4 Ward 2 Kalvathy
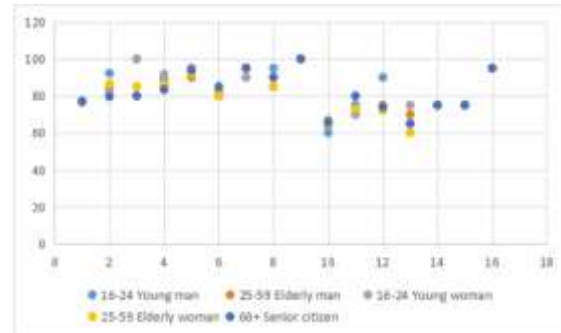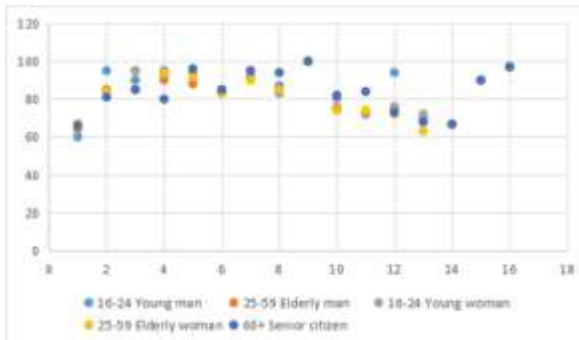Source: Author generated with QGIS,2023.

Figure 1 Survey result
Source: Author generated with Excel,2023

Ward 2 of the ABD area for development is Kalvathy. The ward has a total population of 7814, with 3052 female population and 2793 being male population.

People here were unhappy in terms of economy due to the presence of slums. the ward accommodates a slum population of 2672 people. This is another reason that led to the decline of safety and security within the ward.

Figure 5 Ward 3 Earavely
Source: Author generated with QGIS,2023.

Figure 2 Survey result
Source: Author generated with Excel,2023

Ward 3 of the ABD area for development is Earavely. The ward has a total population of 6425, with 2805 female population and 2584 being male population. All citizens alike in the ward were less happy in trusting the available mobility services as the transportation services were limited in the interior wards. They were happy about the safety and security. The ward faces the issue of unemployment and scored less in the enabler economy and skills. There are 1000 APL houses and 300 BLP houses present within the ward. People were less happy about the sociality of the ward due to lack of socializing spaces.

Ward 04 Karippalam

Figure 6 Ward 4 Karippalam.
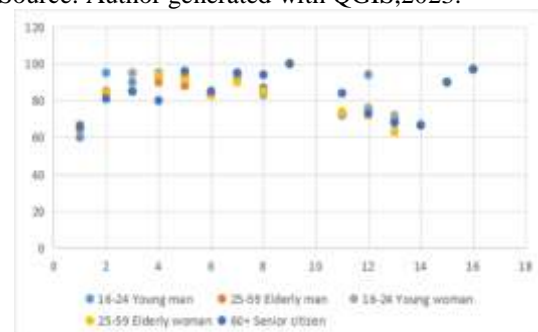Source: Author generated with QGIS,2023.

Figure 3 Survey result
Source: Author generated with Excel,2023

Ward 4 of the ABD area for development is Karippalam. The ward has a total population of 8882, with 3289 female population and 3036 being male population. Karippalam ward also scored similar to Earavely ward, here also citizens alike in the ward were less happy in trusting the available mobility services as the transportation services were limited in the interior wards. Residents happy about the safety and security. The ward has slums and faces the issue of unemployment and are unhappy with the enabler economy and skills. There are 1600 APL houses and 800 BLP houses present within the ward.
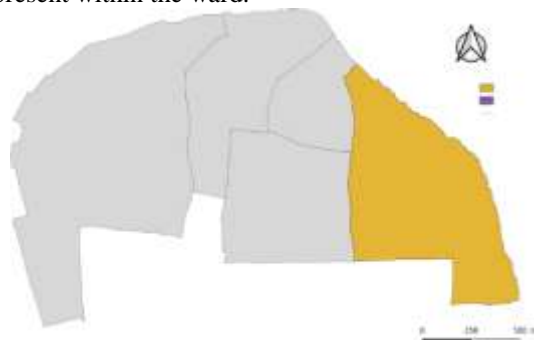

Figure 7 Ward 5 Mattanchery
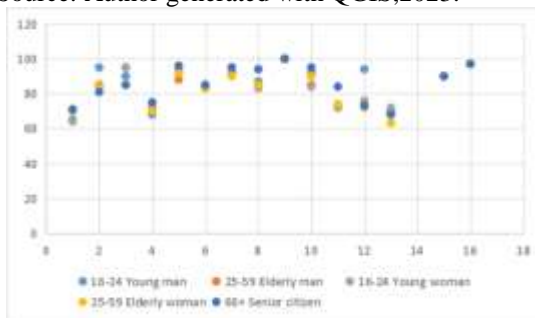Source: Author generated with QGIS,2023.

Figure 4 Survey result
Source: Author generated with Excel,2023

Ward 5 of the ABD area for development is Mattanchery. The ward has a total population of 10144, with 3974 female population and 3564 being male population. Mattanchery citizens were less happy in terms of safety and security especially young generation due to interruption on road and congestion near the junctions and bazar road. This ward also scored less in economy due to large number of slum population.

Figure 5 Survey result
Source: Author generated with Excel,2023

The graph shows the final analysis result for all the wards combined under each age group.The results showed that special attention needs to be given in improving the sociality and tolerance and inclusiveness of the area. The proposed area also needs improvement in terms of economic development for it to develop into a happy city.

V. CONCLUSION

Happiness in a city through urban planning depends on various physical factors like urban design, nature, and mobility and conceptual indicators like service quality, culture and sustainability and partnership. The happiness within a city can be redefined by modifying external and internal enablers of happy cities. Urban happiness is region specific they can vary depending on the culture and lifestyle of the region. Urban happiness is people specific the happiness of the people belonging to the young men and women category can be different form that of the older generation. Kochi is one of the cities with the quickest growth with high economic growth and supports a large number of working populations, and ranks 45th in the EoLI, thus there is an opportunity to make the city more liveable and happier.

Thus, based on the studies conducted fields were spatial planning proposals and strategies needs to focused are suggested to plan for the Happy city in Kochi ABD Area. The basic idea is to plan to improve the various enablers of happy city design. The factors which impacted the overall wellbeing and happiness of the residents the most were identified to provide necessary improvements.

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