

# ***Analysis of Livable Cities Regarding Housing Affordability, Environmental Quality and Public Transport***

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**Abstract:** A habitable environment is required for the economy. This necessitates that the economies have the most affordable housing, the highest environmental standards, and the finest public transportation. These parameters must be better defined in the majority of developing economies. However, developed economies have improved housing affordability, environmental quality, and public transportation. The paper illustrates the affordability of accommodation, environmental quality, and public transport in both developed and developing economies through a review of the relevant literature. To achieve this objective, the study investigates the cities based on their success in terms of housing affordability, environmental quality, and public transportation. The significance of the study lies in the fact that it demonstrates that, despite the fact that developed cities possess affordable housing and environmental qualities, they still require refinement to be livable. Moreover, despite the fact that the developing cities of China have the finest public transport in the world, China and India still have room for improvement in this area. This further demonstrates that developed and developing economies should take macroeconomic parameters significantly into account in order to make their cities habitable.

**Keywords:** housing affordability, environmental quality, public transport

## **1. Introduction**

Access to enough housing, food, transportation, employment, and other basics is essential to a city's livability. In order to have a good quality of life, urban areas, regions, and communities need to be livable [1]. There are already more than 3 billion people living in urban settings, and that number is predicted to grow to 6 billion by 2041 [2]. The paper uses a literature analysis to illustrate the differences between developed and developing economies with regards to housing costs, environmental quality, and accessibility to public transit. The cities were examined in terms of their affordability in terms of housing, environmental quality, and public transportation, and the study utilised a qualitative research approach to accomplish this. Extensive data on metropolitan areas in the United Kingdom, Japan, the United States, China, and India is also provided. Finally, it illustrates a range of policy initiatives that should be considered in order to improve the livability of cities around the world. Therefore, the research article is very important because it contributes to the future study of literature by combining a qualitative and statistical approach.

## **2. Standards and Methods of Livable Cities**

### **2.1. Natural Environment and Infrastructure**

For a city to be livable, environmental quality is crucial. This is due to the fact that environmental quality has far-reaching effects on both ecosystems and human populations [3]. It's important to keep the environment in good shape. Taking preventative measures, eliminating existing environmental problems, and enhancing environmental quality are all ways to achieve this goal. Pollution is low, biodiversity is high, and there are plenty of options for making money in a healthy ecosystem. Ecological characteristics that have an impact on human and non-human life are collectively known as environmental quality [4]. To maintain a healthy ecosystem by protecting our forests, rivers, lakes, and soil. Everything that breathes relies on Earth's atmosphere for survival. Diseases of the respiratory system, cancer, and cardiovascular issues are all made worse by polluted air and water.

Higher-income persons are more likely to be in a position to enjoy the benefits of a positive environment. People of lower socioeconomic status are disproportionately affected by environmental hazards. The environment is especially hazardous for pregnant women and young children. This means making sure the environment isn't hazardous to people's health in any way.

In addition to the natural environment, a country's economic health depends on its infrastructure. For supply chains to function smoothly and cross-border trade to be efficient, an economy needs dependable infrastructure [5]. Households in different economies can be better connected through infrastructure, which in turn improves employment prospects, educational and healthcare options. In addition to this, every member of an economy requires a stable housing market. Furthermore, infrastructure is essential for the rapid expansion of the nation's economy, which in turn aids in the fight against poverty. According to SI et al., infrastructure contributes to development by supplying the bare necessities for the functioning of an economy's economic activity [6]. Thus, a strong infrastructure is crucial to the progress and expansion of any economy. Infrastructure can also be guaranteed by constructing extensive systems of roads, trains, public transport, etc. These types of infrastructure are essential because they support the growth of communities and economies. Improvements in the economy, productivity, security, environmental impact, and the provision of essential public services all stem directly from investments in infrastructure that are in good repair. One of the most important aspects of infrastructure is public transport. This is so because public transport plays a crucial role in the expansion of any given economy. Using public transit is another way to help the planet. This is due to the fact that taking public transport instead of driving can save CO2 emissions by up to 20 pounds per day [6]. As a result, greener communities benefit from investments in public transport.

### **2.2. Housing Affordability**

The term "affordable housing" refers to how much it would cost to provide adequate accommodation for one's family. Because shelter is essential to human well-being, housing affordability is a necessity. Housing that is within most people's price range also contributes to the wellbeing of a society by providing stability and reducing stress [7]. The health and happiness of individuals would greatly benefit from more affordable housing options. Additionally, the security it affords opens up more doors for success. Furthermore, security, safety, credibility, and identity are important factors in determining one's quality of life. According to Meen's research, homes are essential to and beneficial for people's and economies' growth and development [8]. It also does a lot of good for the economy by attracting and retaining large companies. Socially rented, inexpensive rental, and intermediate housing are all examples of affordable housing options. Furthermore, income and housing costs in a city are taken into account when determining housing eligibility. When the majority of a country's

population cannot purchase homes at the going rate, housing affordability becomes a serious issue for developing economies. In addition, people in industrialised economies can afford to own homes. In addition, the government in a developed economy can afford to house its citizens who cannot otherwise afford to do so. Thus, the developed world helps those who can't afford to buy a home on their own. Therefore, income rather than market conditions and housing prices should be the primary factor in determining who can afford a given home.

### 3. Case Study of Livable Cities

#### 3.1. Livable Cities in Developed Countries

Among American cities, Los Angeles ranks high in terms of quality of life. The city is surrounded by stunning natural features, including beaches, mountains, and more [9]. Cultural diversity abounds in the city as well, thanks to the influx of tourists drawn by one of the world's finest vistas. The city is now a pleasant place to live [10]. The survey also showed that the city is experiencing a period of rapid industrial expansion, ranking it among the top cities in terms of key economic indicators like GDP per capita and access to quality healthcare. As a result, more possibilities emerge, and the town's overall condition improves even more over time.

One of the most outstanding cities in the world in terms of environmental quality is San Francisco in California. According to Siodla's research [11], due to its proximity to woods, natural parks, etc., it is one of the greenest towns in the world. More than half of the workforce gets around town using some form of public transport or a bicycle. The city is surrounded by woods, natural parks, etc., making it one of the greenest in the world. The city also boasts considerable experience in garbage management. The city's economy is helped in the long run by the fact that 80 percent of its trash is not dumped in landfills.

The city government has outlawed plastic products that are harmful to the environment, as was noted in the study [12]. The city will be even cleaner and greener as a result of this. The town's continued efforts to reduce pollution have resulted in an excellent air quality index. The city also possesses a significant amount of global greenhouse power, making it environmentally favourable. This paves the way for civic leadership and long-term sustainability. The city is at the forefront of a nationwide shift towards this type of setting. Figure 2 shows that between 1990 and 2019, the city cut its carbon footprint by 41%. This is due to decreased emissions from construction, transportation, landfilling of organics, farming, and landfilling of garbage. Because of this, not only has the city's carbon footprint shrunk, but so, too, have residents' health and the environment. This better environmental quality in San Francisco is a direct result of the citywide effort to reduce its carbon footprint.

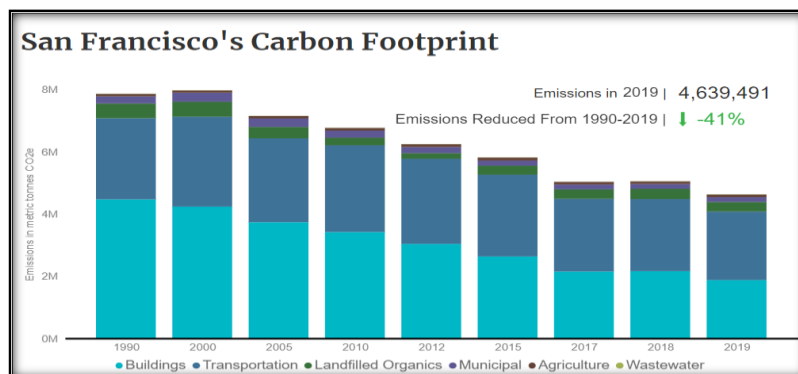


Figure 1: Trend of carbon emissions in San Francisco [11].

The Japanese cities of Tokyo and Kyoto are also among the most livable in the world. This is due to the fact that the environmental quality in these Japanese cities is often high and consistent. Public transit in major urban centres is also reliable. There has been an increase in mortality in these Japanese cities due to air pollution, highlighting the need for action, as shown in figure 2.

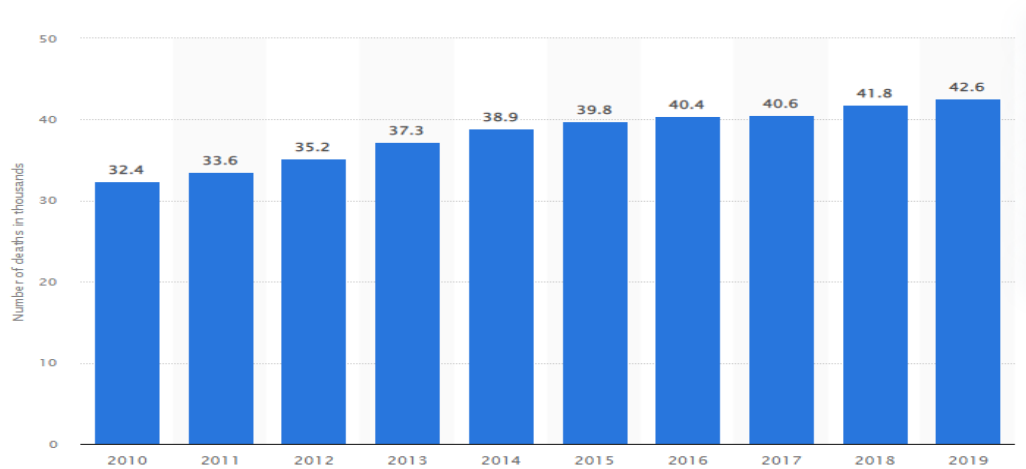


Figure 2: Deaths because of air pollution in Japan [13].

One of the world's most cosmopolitan metropolises is London, in the United Kingdom. London is pricey and crowded because one-third of its residents were born in another nation. However, the greenness of Edinburgh, United Kingdom, is what really sets it apart. This is because of the abundance of outdoor activities, particularly hiking and strolling, that the city offers. The cost of living is reduced as well, especially when compared to London. This proves that Edinburgh is a preferable place to live in the United Kingdom than London. Thus, even if developed economies are pleasant, they need to enhance the accessibility of public transit, the affordability of housing, and environmental protection.

### 3.2. Livable Cities in Developing Countries

China is home to some of the world's top public transport systems, including those in Beijing and Shanghai. The city has the best public transport systems, according to the World Economic Forum's Urban Mobility Readiness Index 2022 [14]. These locations are notable for their well-developed rail networks and low transit costs. It contributes to the growth of China's standard of living and infrastructure [15]. According to the Public Transit Index of 2022, this city has 77% of the best public transportation. This aids the economies by creating more opportunities for employment and transportation. This means that these cities have some of the best public transport systems in the world, which aids in the expansion of trade and industry. Figure 3 is a graph showing the average number of days per week that people in China will use public transit. This demonstrates that in many urban centres, railways are the most widely used form of public transit. As a result, people in China rely heavily on public transport.

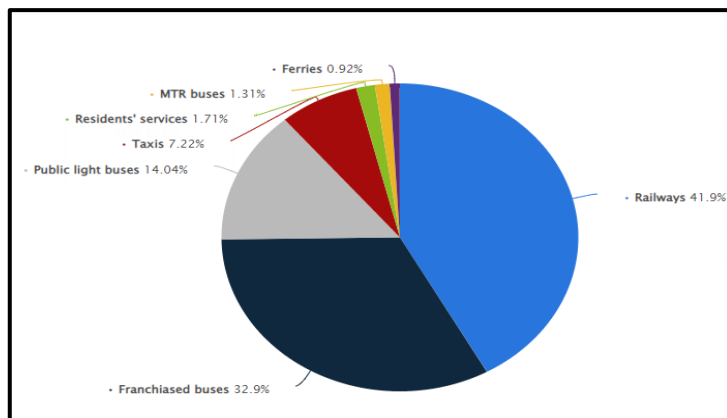


Figure 3: The distribution of average daily public transportation in China [14].

Even if Mumbai and Delhi are growing, more work needs to be done to enhance their infrastructure and quality of life. This is because the pollution in these highly crowded cities contributes to poor air quality in these economies. And when it comes to public transport, Mumbai and Delhi are dead last out of 60 major cities throughout the world [16]. That suggests there is a long way to go in terms of development for these cities. Thus, in order to make cities habitable, emerging nations must enhance their accessibility and affordability of housing, environmental quality, and public transit. Studies have shown that both advanced and emerging nations, such as China, pay close attention to macroeconomic characteristics in order to make their cities habitable. In India, however, neither the economies of Mumbai nor Delhi have such macroeconomic criteria.

#### 4. Construction and Promotion of Livable Cities

The governments of numerous cities have a wide range of options for enacting livability-enhancing legislation. First, assigning financial authority to cities in a fair and proportional manner in light of their responsibilities is essential, as shown by the World Economic Forum study [17]. It will aid in the realisation of sustainable development targets, thereby improving the quality of life in urban areas. Since it is critical to recognise that not only local governments are accountable for urban concerns, it is also important for the government of economies to provide national-level support to cities. Policy and management decisions at the city level should also take regional and global linkages into account. Furthermore, the government can launch campaigns emphasising the significance of livable city conditions. By doing so, the city's residents can be assured that they are contributing to its pleasant atmosphere.

#### 5. Conclusion

In conclusion, despite the fact that developed cities offer a variety of housing options at cheap prices and have positive effects on the surrounding environment, these cities still require additional development to become habitable. In addition, despite the fact that growing cities in China have some of the best public transport systems in the world, both China and India have a long way to go in terms of building their public transport systems. This further illustrates that both established and developing economies should take macroeconomic characteristics into substantial consideration when planning the habitability of their cities. To ensure that individuals can make a living in cities in the future, the government needs to empower cities, offer support on a national level, and provide learning opportunities to individuals through the use of campaigns. This will ensure that cities are economically viable places to live. This paper also has limitations, as it only briefly analyzes the

situation in some developed and developing countries, and the dimension of the analysis is shallow and needs further analysis in future studies.

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