Hiroo Ichikawa is Professor Emeritus at Meiji University and the Executive Director of The Mori Memorial Foundation.

INTERVIEW

Hiroo Ichikawa

Into a Tech-Enabled Future

Tokyo, the world's most populous metropolitan region, provides high quality healthcare in a highly liveable urban environment for its citizens. **Hiroo Ichikawa**, Executive Director of The Mori Memorial Foundation, which compiles the annual Global Power City Index (GPCI), outlines Tokyo's future challenges and discusses possible technological solutions as Japan faces a dwindling and ageing population, and a shrinking workforce.

How has Tokyo developed over the years?

Tokyo's population has grown from 1 million in 1910 to over 37 million today, and could reach 40 million. This growth pattern is more or less similar to other cities in the world. This means that the 20th century was a time when cities just became bigger and bigger. Tokyo witnessed its first rapid economic growth period in the 1960s and the city expanded outwards until the 1990s. Then, after the economic bubble burst in the mid-1990s, rentals dropped and people started coming back to the city centre.

How does the Global Power City Index (GPCI) compare cities around the world?

The GPCI evaluates and ranks major cities according to their "magnetism", or their comprehensive power to attract people, capital and enterprises from around the world. It provides a multidimensional ranking by measuring six functions—Economy, Research and Development, Cultural Interaction, Liveability, Environment and Accessibility. The GPCI can grasp the strengths, weaknesses and challenges of global cities in a continuously changing world not only through a ranking, but also by analysing that ranking's specific components.

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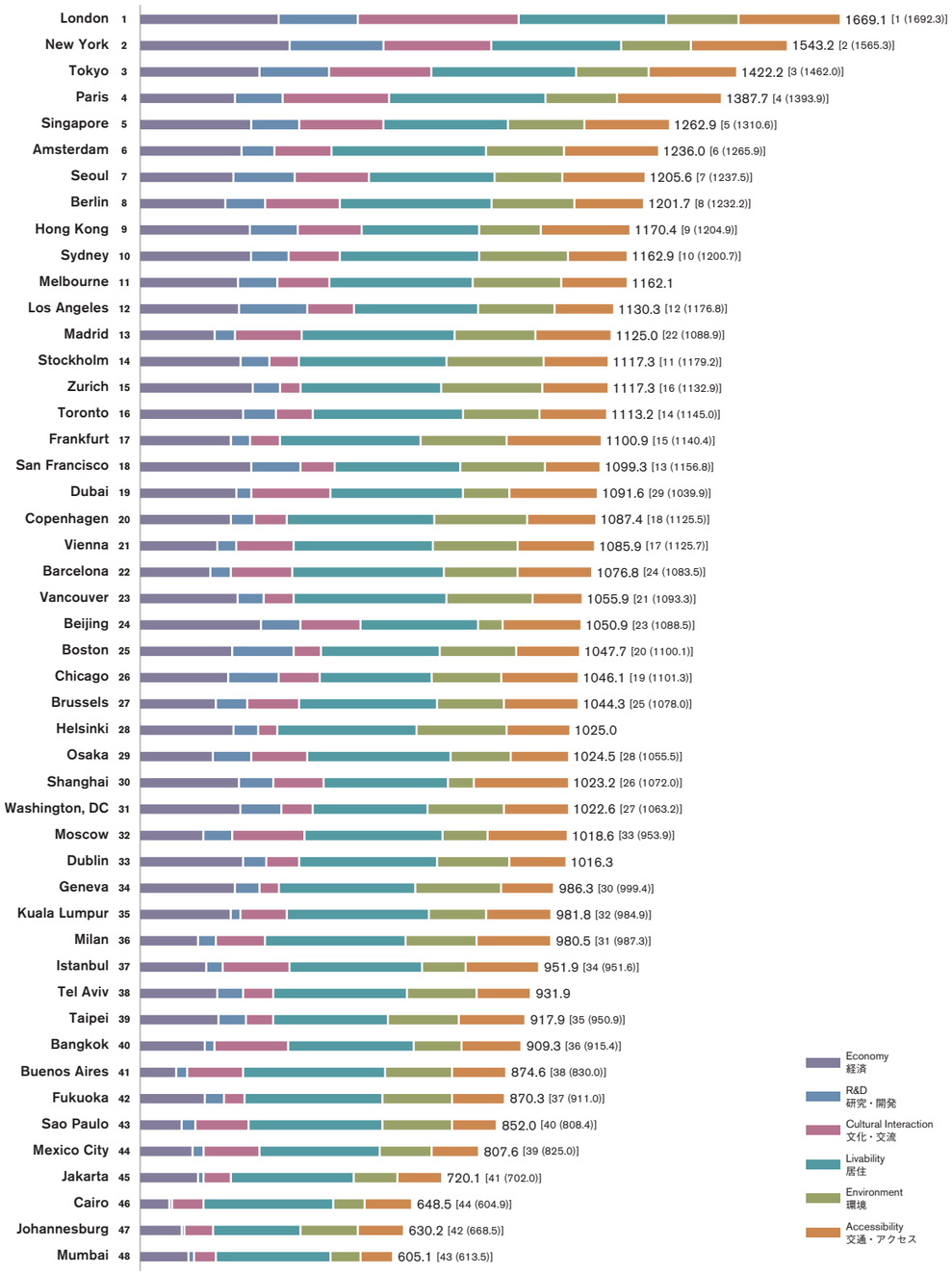

When we started the GPCI in 2008, other similar rankings were focusing on cities as business or financial centres. However, we evaluate cities comprehensively using six functions and 70 indicators. We rank 48 major cities in the world, and every year we revise several indicators. Currently the top 10 cities are London, New York, Tokyo, Paris, Singapore, Amsterdam, Seoul, Berlin, Hong Kong and Sydney.

In 2002, New York was replaced by London as the top city on the index. Tokyo climbed one rung above Paris after 2013, when it won the bid to host the 2020 Olympics. This year, while there is no change in the overall ranks of the top five cities, the individual scores of Tokyo and Singapore have dropped. This is because Japan's economy has slowed and because of changes in its stock market capitalisation relative to other top cities. The availability of skilled human resources and the start-up environment has also declined.

Singapore's case is a little bit like Tokyo. The number of foreign residents and start-ups are shrinking, and factors like work flexibility and long commuting times have resulted in a lower score for Singapore. Liveability is not bad in Singapore, but it scores lower on factors like private housing rentals and some others.

What does the GPCI tell us about health and well-being of citizens?

The GPCI does not have specific data for these factors. We cover 48 cities, and some have the data while others don't. As this makes comparisons between cities difficult, we don't use it. Like Japan, some other developed countries also have very good policies for people's well-being and medical care.

While the GPCI does not measure well-being, happiness or health specifically, it covers some indicators that influence the overall well-being of a population.

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These are mostly grouped under Liveability and Environment, with indicators such as social freedom and equality, risks to mental health, carbon dioxide emissions and water quality. Positive well-being stems from all areas of urban life and can come from factors such as adequate wage levels that meet the living costs associated with a city, the availability of urban green spaces, or having a short and comfortable commute.

The GPCI, as a comprehensive evaluation of a broad range of indicators, allows for a balanced look at what makes cities excellent places to live and carry out healthy, fulfilling lives. While there is no single perfect city, some notable examples of GPCI cities that offer a high level of well-being are the European cities of Stockholm, Copenhagen and Amsterdam, all of which manage to offer a relatively high level of liveability, while providing a high-quality environment and economic opportunities. Newly added Dublin also balances liveability with economic competitiveness and environmental sustainability, and it even has a good amount of cultural attractions.

01 The Mori Memorial Foundation ranks 48 of the world's major cities in the GPCI 2019 report.

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These cities may not have the economic power of New York, the cultural richness of London, or the broad transportation coverage of large Asian cities, but they offer a sufficient balance of all the conditions that facilitate well-being and health.

For a highly urbanised city like Tokyo, do factors like pollution and stress significantly affect people's health and well-being?

Tokyo has a long history of policies to curb pollution. In the 1960s, there were many factories and automobiles spewing smoke. To stop that, several laws and ordinances were promulgated. This began with the Diesel Vehicle Control regulation in 2003 to control pollution caused by diesel vehicles. Since 2003, Saitama, Chiba, Tokyo and Kanagawa prefectures have prohibited diesel vehicles whose emission levels do not meet specified standards. Non-conforming vehicles must be replaced with ones that meet the standards or with low-emission vehicles, or be fitted with filtering equipment certified by the prefectural governments.

Since then, Tokyo's air has been quite clean. The river is also very clean. Now there is a river cruise, which was not possible 20 years ago because of the smell. Tap water in Tokyo is also safe to drink. Overall, Tokyo's environmental quality is very good. However, despite the high quality of water and air, noise pollution still persists.

Stress depends on individual perceptions. Cities like Hong Kong and Tokyo are quite congested and crowded, but they might not be stressful for people who have grown up in such conditions, unlike people from countries with fewer people.

What factors distinguish the quality of health and well-being in Tokyo from other developed Asian cities?

Tokyo's budget is quite big. It is close to that of Korea. The local government is quite rich and, generally speaking, policies pertaining to health and well-being are of a high quality in Japan. The country's life expectancy is among the highest in the world, especially for men. Number one is Hong Kong at 84.7 years on average, and for Japan it is 84.2 years. Singapore is not bad at 82.9 years.

The reason is that in Japan we have a medical system where, up to the age of 75, we have to pay 30% of the costs of medical care while the government or association pays the remaining 70%. After the age of 75, you pay only 20%. Sometimes, depending on the local government, you pay only 10%. Therefore, people have a good chance of getting good medical care without paying too much. Several types of subsidies are also provided for the disabled or for new mothers.

> **"Overall, Tokyo's environmental quality is very good. However, despite the high quality of water and air, noise pollution still persists."**

01 The popular St Stephen's Green provides green respite in Dublin's city centre.

02 Tokyo boasts a high-quality living environment, despite being highly dense and populated.

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To what extent does income inequality affect the health outcomes of the Japanese?

So far, we have a highly refined Asian system that covers even low-income people. But my concern is that in the next 20 years, a smaller budget could pose challenges. As an ageing society, we face a reduction in the number of younger generations of Japanese who pay taxes, which funds pensions.

At present, there are no answers as to what will happen to the elderly. Maybe, as in the case of the United States, the rich could pay for themselves. But for the low-income elderly, it's going to be quite hard in the future. While we are not having serious discussions about this at present, it could be a very stressful subject in 20 years.

What are some key challenges that Tokyo will face over the next 20 years and how are they being addressed?

Japan's population started to decline after 2011, and we may see the same in the Tokyo metropolitan region in the next five to 10 years. In other cities like Singapore, New York and London, the population is still growing. But we are at a very different stage. Our population is shrinking, which will lead to shrinking labour force and a loss of economic power.

What are the solutions? Well, we could have more immigrants. We are studying Singapore's case and are quite careful. Technology is another solution. It is important to consider how technological advancements can change the future and help people. For example, with an ageing population we need helpers, but maybe half of those needs can be replaced by robots. In the next 20 years, taxi and bus drivers will disappear as autonomous cars are adopted.

We have forecasts in four categories: future living—with the arrival of a sharing economy or a sharing era; future work—where artificial intelligence and robots will work well; future mobility—where autonomous vehicles will become popular; and future entertainment—which will combine the real and virtual worlds. However, while these developments are technologically feasible, it takes time to change regulations and laws, so I'm neither pessimistic nor optimistic.

01 Japan has the fastest-ageing population in the world.

02 Young Japanese will become a less common sight in the future.

"It is important to consider how technological advancements can change the future and help people."

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What about issues of gender inequality and an ageing workforce?

In my view, since we need more workers, the solution should be to increase the participation of women and older people in the workforce. With more opportunities, I am optimistic that gender equality and inclusivity will improve.

The issue of ageing is quite serious in cities like Tokyo and Seoul, and soon in Chinese cities as well. Policies to address the needs of an ageing society will vary according to its income base. While the rich won't need any help from the public sector, taking care of low-income elders presents a serious challenge. The Japanese government has floated an idea that since Tokyo's population is high, the elderly could move to other cities or suburban areas. However, smaller towns and cities don't easily accept newcomers, so large cities will still have many ageing people. The question for Tokyo and other cities in the world, therefore, is how to sustain that.

How does climate change affect Tokyo and how is the city preparing for it?

The urban heat island effect is a serious challenge for Tokyo. Some parts of the city centre are becoming warmer, and they remain so even at night. This occurs because of the warm air generated by air-conditioning in houses and buildings. Now we are working on technology to limit the heat generated by air-conditioning.

Another challenge is on-road heat. In the daytime, the temperature can be 35°C, but it can reach about 50°C on the road. The Tokyo Metropolitan Government has been installing solar heat-blocking pavement around the city in an effort to reduce the effects of road surface heat and its contribution to the urban heat island effect. This has helped to reduce ambient temperatures by as much as 10°C. Such technological adoption is necessary.

Because of climate change, we already have heavy rain in Tokyo every year. Our future planning should consider this as well.

Are there lessons for Tokyo from other cities to mitigate the effects of climate change?

Singapore can get very hot, while Canadian cities freeze in winter. In Canada, many cities have large underground spaces that allow people to escape the cold. In Singapore, you also have underground passages and links between buildings, as well as covered parking spots and walkways. Such efforts make cities more comfortable. The temperature in Tokyo is going up year by year, and maybe in the next 10 to 30 years, Tokyo might become as hot as Singapore. Dealing with that will be a very important aspect of planning.

01 Foreigners are increasingly hired as healthcare workers to address the labour shortage in Japan.

02 Parasols and shade provide brief respite during hot summers.