

IN CONVERSATION WITH
TAKEHARU YAMANAKA

Since 2021, Mayor Takeharu Yamanaka has been leading Yokohama's ambitious initiatives, advancing Yokohama as a world-leading circular city.

Yokohama Leading the Global Shift to a Circular Economy





In the face of climate change, the role and responsibility of cities are critical. Yokohama is working in close partnership with citizens and businesses to promote comprehensive efforts towards a sustainable circular society.



Besides being a major international trading port, Yokohama is a renowned thriving economic hub, which attracts a diverse range of industries from information technology to advanced manufacturing. It is also Japan's largest city-level municipality, housing around 3.8 million residents. As a port city, what projected climate risks does the city face, and how do these risks affect Yokohama's economy and people?

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In the face of climate change, the role and responsibility of cities are critical. Yokohama possesses a coastline extending approximately 140 kilometres, where around 3.8 million residents live and over 110,000 businesses operate. As climate-related disasters grow in frequency and intensity, they pose serious threats to both daily life and economic activity. To mitigate and adapt to these risks, Yokohama is strategically advancing infrastructure development, including coastal protection facilities. At the same time, the city is working in close partnership with citizens and businesses to promote comprehensive efforts towards a sustainable circular society—contributing to the global challenge of tackling climate change through local action.

Yokohama has set ambitious climate goals: to cut greenhouse gas emissions in half by 2030 and to reach net zero by 2050. In addition to decarbonisation, the city is prioritising the transition to a circular economy. What are some notable decarbonisation initiatives and programmes that the City of Yokohama has implemented to achieve this target?

Realising a decarbonised society requires broad-based participation by both citizens and businesses. Cities, being closest to them, play a vital role in raising environmental awareness and encouraging behavioural change. Yokohama promotes climate policy through four pillars:

1. Empowering citizens
2. Empowering businesses
3. Implementing innovative technology
4. Taking actions as a local government



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Minato Mirai is a central business district where we have implemented ambitious climate actions, thus developing an urban model for a green future. This 2 km² hub, employing 140,000 people and accounting for 10% of the city's commercial energy consumption, has been designated as a "Leading Decarbonisation Area" by Japan's Ministry of the Environment. Through a combination of rooftop solar power, office energy efficiency, and renewable energy procurement from outside the district, it aims to achieve net-zero CO₂ emissions in the commercial sector by 2030. This public-private collaboration serves as a model for large cities.

Another example is our Carbon Neutral Port. Yokohama is advancing the "Port and Harbour Decarbonisation Plan for the Port of Yokohama", which aims for net-zero CO₂ emissions in Yokohama's waterfront area by 2050, formulated together with thermal power producers, oil refiners, shipping companies, and financial institutions. This plan includes three policies: decarbonisation of industries, decarbonisation at terminals, and creation of an abundant ocean. It identifies 121 port decarbonisation projects through public-private partnerships.

The project promoting this plan became the first in Japan to win the Climate and Energy category of the International Association of Ports and Harbors (IAPH) 2025 Sustainability Awards, contributing globally as knowledge that can be applied to ports worldwide.

In terms of citizen engagement, Yokohama has introduced a recycling system for plastics that were previously incinerated, reducing CO₂ emissions from waste disposal. To ensure success, the city has worked closely with neighbourhood voluntary clubs to promote public understanding and behavioural change. It has also expanded shared bicycle ports through deregulation, encouraging low-carbon mobility.



The Port of Yokohama: JAPAN's PORT, which has a variety of functions such as logistics, production and tourism.
Image: © City of Yokohama



In Yokohama, a profound culture of conscientious waste separation permeates among citizens. Even at music festivals held at serene seaside parks, meticulous segregation of refuse ensures its transformation into valuable resources.

Image: © City of Yokohama

Finally, to support SMEs, we allow Yokohama's 73,000 small and medium-sized enterprises to declare their decarbonisation efforts to access subsidies, loans, and technical assistance. The city provides tools for visualising emissions, supports planning, and offers funding for energy-efficient equipment and solar installations.

Why has Yokohama made the circular economy a central policy pillar?

The transition to a circular economy not only contributes to climate change mitigation but also represents a pursuit of a better society and enhanced urban sustainability.

Yokohama has already established a strong presence in the international community in the environmental field, and we aspire to take an even greater lead in shaping the global momentum towards solutions. To advance these efforts, Yokohama is pursuing the transition towards a circular city by interlinking six key drivers—termed the “Circular Link”:

1. Strengthening Ties between Manufacturers and Recyclers
2. Applying Circular Design in Public Buildings
3. Measuring Circular Inflow and Outflow Rates (%) in the Central Business District
4. Promoting Civic Involvement through Circular Lifestyles
5. Circulating Food Loss as Compost in City Farms
6. Fostering SMEs' Shift to Circular Management



The "Food Loss Reduction Vending Machine" is an unmanned, locker-style vending machine that sells food at affordable prices to reduce food waste. It offers items that are still within their expiration dates but would otherwise be discarded due to factors such as store operating hours or product standards. Yokohama is also advancing the development and implementation of a system to collect used cooking oil from households and recycle it into sustainable aviation fuel (SAF).

Image: © City of Yokohama

What specific circular economy initiatives are being implemented?

With a rich ecosystem of manufacturing (arterial industries) and recycling (venous industries) businesses, Yokohama is cultivating synergies between these sectors to drive the emergence of new industries that support a circular economy and generate employment. Minato Mirai has begun a pioneering initiative to visualise the circulation of resources at the district level—quantifying both inflows and outflows to create Japan's first measurable model of resource circularity. The city is also advancing circular architecture. For example, temporary school buildings in central Yokohama are designed for disassembly and reuse, minimising waste and environmental impact. Students at the school are also engaged in experiential learning, using sorting bins made from upcycled marine plastics and creating crayons from food waste such as discarded vegetables.

Yokohama is also advancing horizontal recycling initiatives, such as the re-manufacturing of unwanted clothing into new products. To reduce food loss, the city is promoting a variety of innovative programs led by the municipality, including the "Food Loss Reduction Vending Machine" that sells food items that are safe for consumption, but at risk of being discarded due to factors such as store operating hours or stringent product standards, like breads approaching its expiration date, and a scheme to collect used cooking oil from households for the production of sustainable aviation fuel (SAF).

These sustainable initiatives and lifestyles adopted by citizens and businesses to advance the realisation of a circular society are brought together under the banner of "STYLE100". Through dissemination on websites and social media, as well as hands-on implementation at participatory events, Yokohama fosters public engagement and behavioural change, broadening the circle of action.



Yokohama is the first city in the world to be recognised by the OECD for its climate action.



How is Yokohama engaging internationally to advance decarbonisation and circularity?

As Mayor, I serve as an OECD Champion Mayor for Inclusive Growth and as East Asia regional representative for the Global Covenant of Mayors for Climate & Energy. In May last year, I was the only Asian mayor invited to the Vatican Climate Summit, where I delivered a speech on Yokohama's initiatives and engaged with global city leaders to strengthen resilience against climate impacts. In March this year, Yokohama hosted a joint seminar with the Intergovernmental Panel for Climate Change (IPCC) to ensure Japanese local government perspectives are reflected in the forthcoming Special Report on Climate Change and Cities. I gave the keynote address, presenting Yokohama's decarbonisation and circular economy efforts, and emphasising on the critical role of cities.

Yokohama is also the first city in the world to be recognised by the OECD for its climate action. The OECD's 2024 review praised our wide-ranging public-private collaborations and our contributions to sustainable urban development in Asia.

At the 9th Tokyo International Conference on African Development (TICAD 9), held in Yokohama this August, I highlighted our green initiatives to African leaders and met with UN Secretary-General António Guterres, who described Yokohama as "one of the most cosmopolitan cities in the world". In September, I spoke at the EU's Circular Economy Days Programme at Expo 2025 in Osaka, engaging in dialogue with European policymakers and reinforcing Yokohama's leadership in advancing global environmental policy.

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International Outreach—In May 2024, Yokohama's Mayor was the only city leader from Asia invited to the Climate Summit held at the Vatican, where he presented the city's initiatives for climate change mitigation.

Image: © City of Yokohama



At the forthcoming ASCC2025, I intend to spearhead a strategic initiative—jointly with Asian city leaders—to catalyse momentum for the advancement of circular cities across Asia.



Could you share examples of international cooperation with other cities and regions?

Since signing a memorandum with Bangkok in 2012, Yokohama has had over 20 exchanges with Bangkok, contributing expertise to Bangkok's Climate Change Master Plan and Energy Action Plan. Yokohama also hosts the annual Asia Smart City Conference (ASCC), which serves as a platform for knowledge sharing and project creation among cities, international organisations, governments, and businesses. Last year, it attracted over 2,000 participants from 39 cities and institutions. At the forthcoming ASCC2025, I intend to spearhead a strategic initiative—jointly with Asian city leaders—to catalyse momentum for the advancement of circular cities across Asia.

Looking ahead, Yokohama will co-host the Asia-Pacific Urban Forum (APUF) with the UN Economic and Social Commission for Asia and the Pacific (ESCAP) in 2027, bringing together diverse stakeholders to discuss sustainable urban futures.

Through these initiatives, Yokohama will continue to lead international dialogue and actions, aiming to inspire other cities to scale and speed up climate initiatives



Asia Smart City Conference—In October 2024, under the theme “Decarbonising Asia,” Yokohama hosted the Asia Smart City Conference, sharing insights on balancing economic growth with urban environmental sustainability. With the support of 39 overseas cities and government agencies, the Yokohama Declaration was issued to promote the realisation of green societies across Asia.

Image: © City of Yokohama



GREEN×EXPO, opening in March 2027, will serve as a global platform to showcase innovative technologies and initiatives aimed at building a sustainable and green society in harmony with nature. Yokohama will share its vision for a better future with the world, through the theme "Living in harmony with the environment, creating together with everyone".

Image: Main Garden © Expo 2027

GREEN×EXPO 2027 will show how fostering a harmonious relationship with the environment can address global challenges.

Sincere congratulations on your recent re-election. As you begin your second term, what are your aspirations for Yokohama's sustainable future?

Thank you. I remain committed to advancing decarbonisation and the circular economy, ensuring safety and security for our citizens, and contributing globally through policies shaped with an international perspective.

An upcoming milestone will be GREEN×EXPO 2027, an A1-ranked world expo certified by the International Association of Horticultural Producers (AIPH). The event will show how fostering a harmonious relationship with the environment can address global challenges. Surrounded by 10 million flowers and plants, the venue will welcome visitors with opportunities for discovery and learning, both day and night.

At GREEN×EXPO, exhibitions and experiences will range from cutting-edge technologies contributing to the realisation of a green society, to interactive programmes on agriculture and food supported by biodiversity. These are offerings that people from around the world can enjoy.

Visitors will also be able to appreciate Japan's traditional aesthetics, including gardens, ikebana, and bonsai, crafted with the highest levels of expertise and artistry. Through this exhibition, we aim to inspire people everywhere to begin embracing lifestyles in harmony with the Earth, starting in Yokohama, and expanding across the globe.

We warmly invite all to join us in these efforts, as we work together towards realising sustainable circular society. 🌱