

An aerial photograph of Yokohama, Japan, showing a dense urban landscape with numerous skyscrapers and a large harbor area. The water is a deep blue, and the sky is clear. The city extends to the horizon under a bright blue sky.

SDG s FutureCity-Yokohama

# Measures against Climate Change

18<sup>th</sup> July, 2018

ISAP2018

Climate Change Policy Headquarters,  
City of Yokohama

# Yokohama Overview



- Area: 435 km<sup>2</sup>
- Population: 3.74 million
- GDP: 13 trillion JPY (120 billion USD)
- Number of office: 116,000



Yokohama,  
one of Japan's  
leading cities

## 1859 Port of Yokohama Opened

Initially : Small Village  
→Yokohama became Japan's international port town.

## 1923 Great Kanto Earthquake

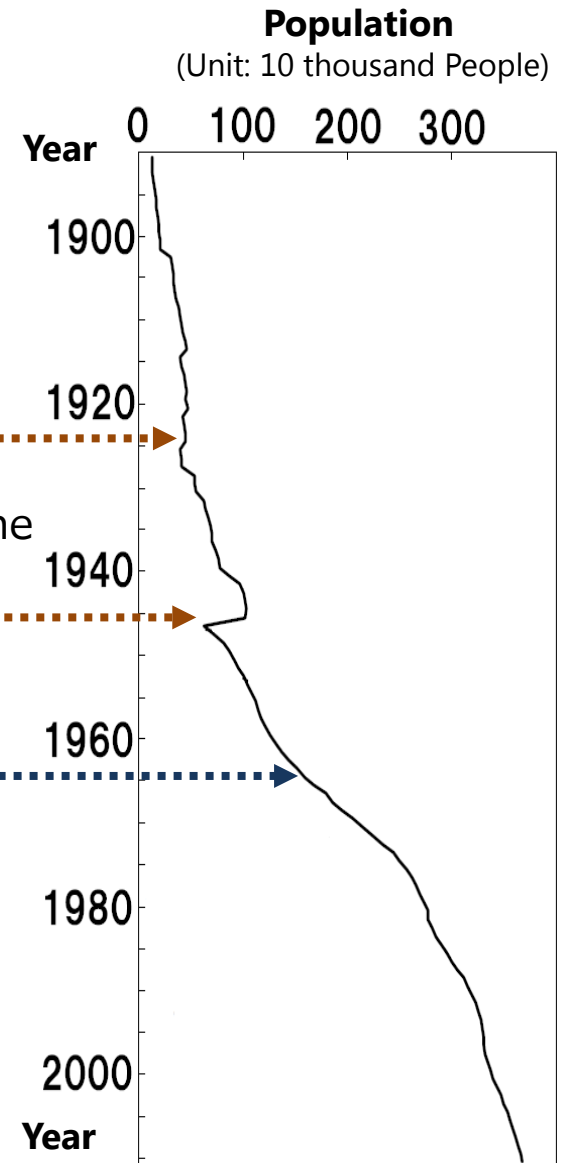
Yokohama sustained devastating damage, but through the recovery efforts, the fundamental framework for today's urban area was developed.

## 1945 Bombing of Yokohama

Key areas in central Yokohama were occupied by the US forces.

## 1965- Economic growth

Migration from rural areas →urban sprawl  
→ **Rapid deterioration of residential environment**



# High economic growth period (1960-1970)

## Yokohama's "5 Major Challenges"

Environmental disruption/Waste/Roads and Traffic  
Water Resources/Public Areas



# Yokohama's "6 Major Projects"



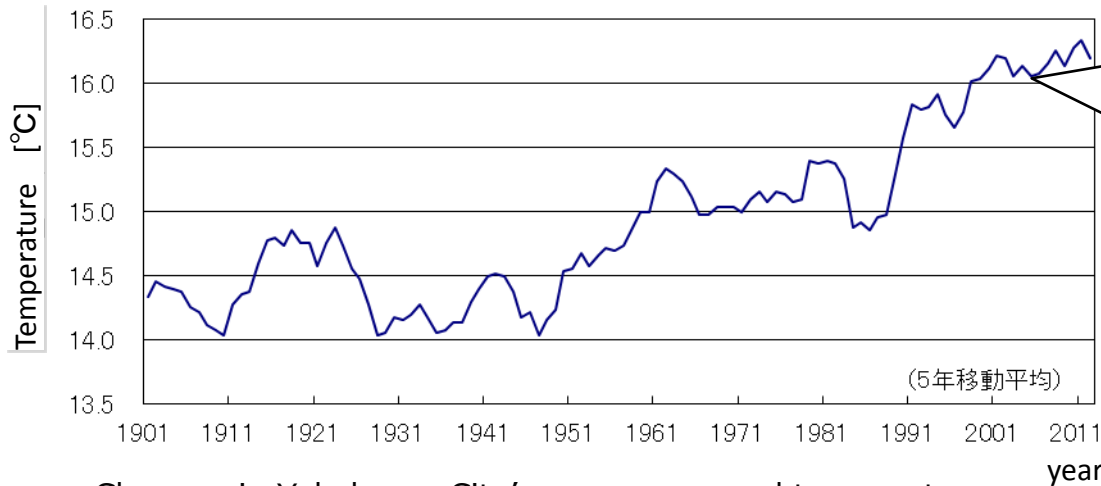
## Yokohama's "6 Major Projects"

- Reinforcement of Central Urban Area
- Land Reclamation of the Kanazawa Ward Shore
- Kohoku New Town Development
- Installing a high-speed railway
- Building a highway
- Construction of the Yokohama Bay Bridge

# Current



# Challenges Yokohama Faces: Climate Change



The temperature has risen approximately 1.8 degrees Celsius over 100 years.

Changes in Yokohama City's average annual temperature



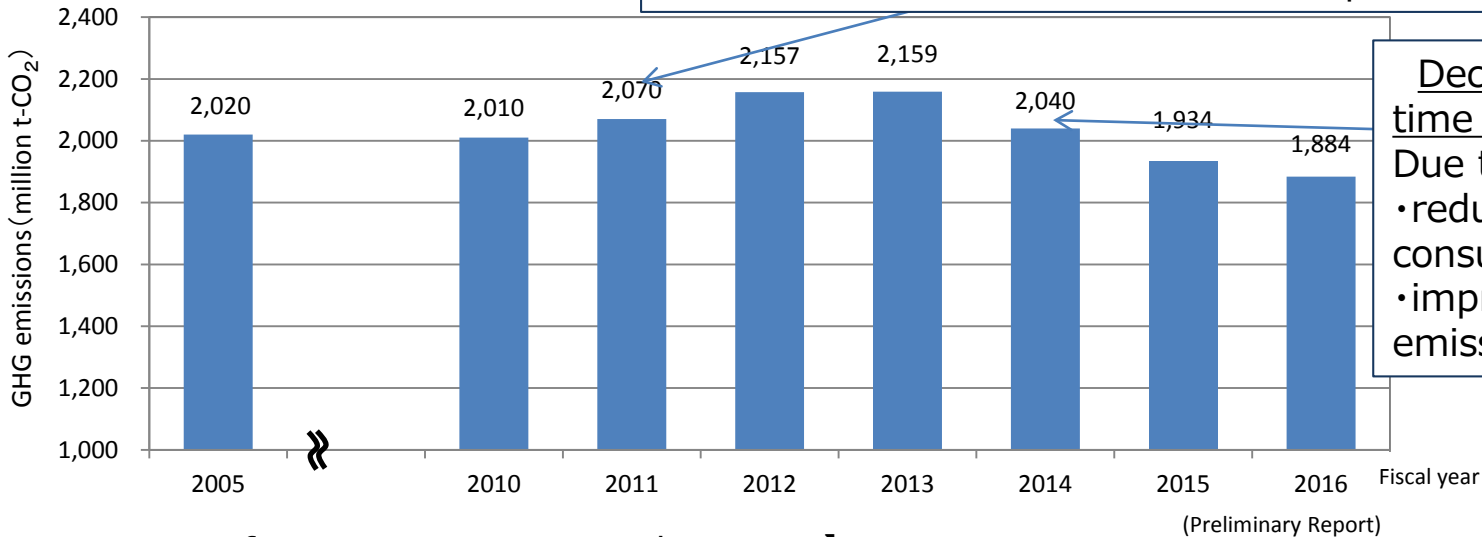
Flood damage due to typhoons



Flood damage due to typhoons

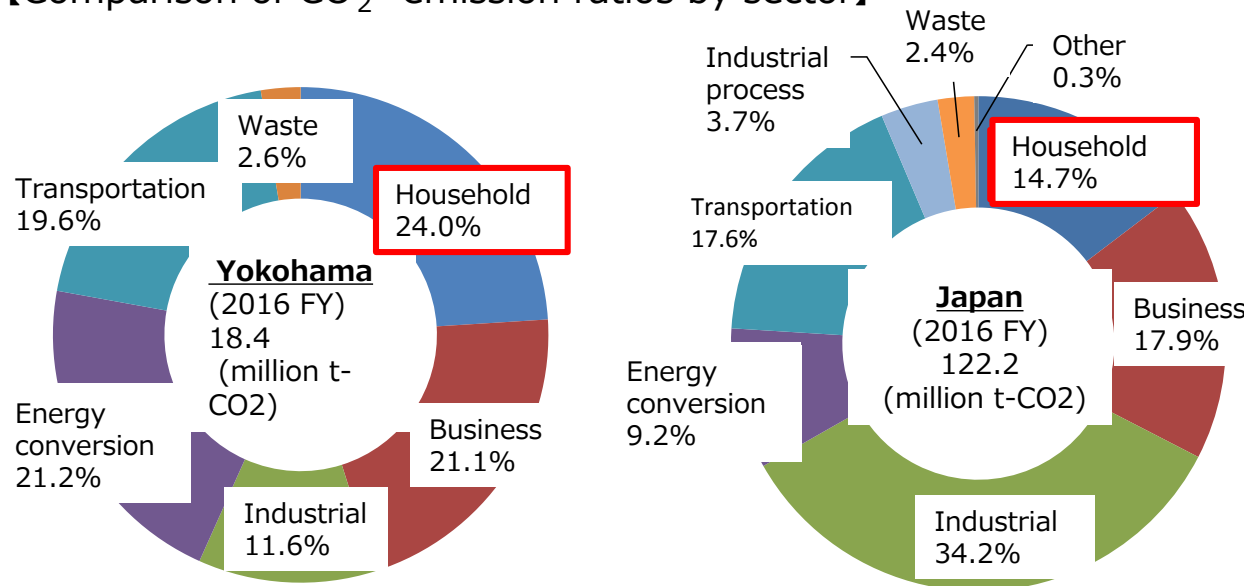
# GHG emissions in Yokohama

Increase factor: the operation of thermal power generation has increased after the Great East Japan Earthquake.



Decline for the first time in 5 years.  
 Due to:  
 • reduction of energy consumption  
 • improvement in emission factors

## 【Comparison of CO<sub>2</sub> emission ratios by sector】



Yokohama is the second largest city in Japan with 3.74 million population. Therefore, Household sector accounts for a high percentage, compared to other cities.



## Yokohama city Action Plan for Climate Change Countermeasures

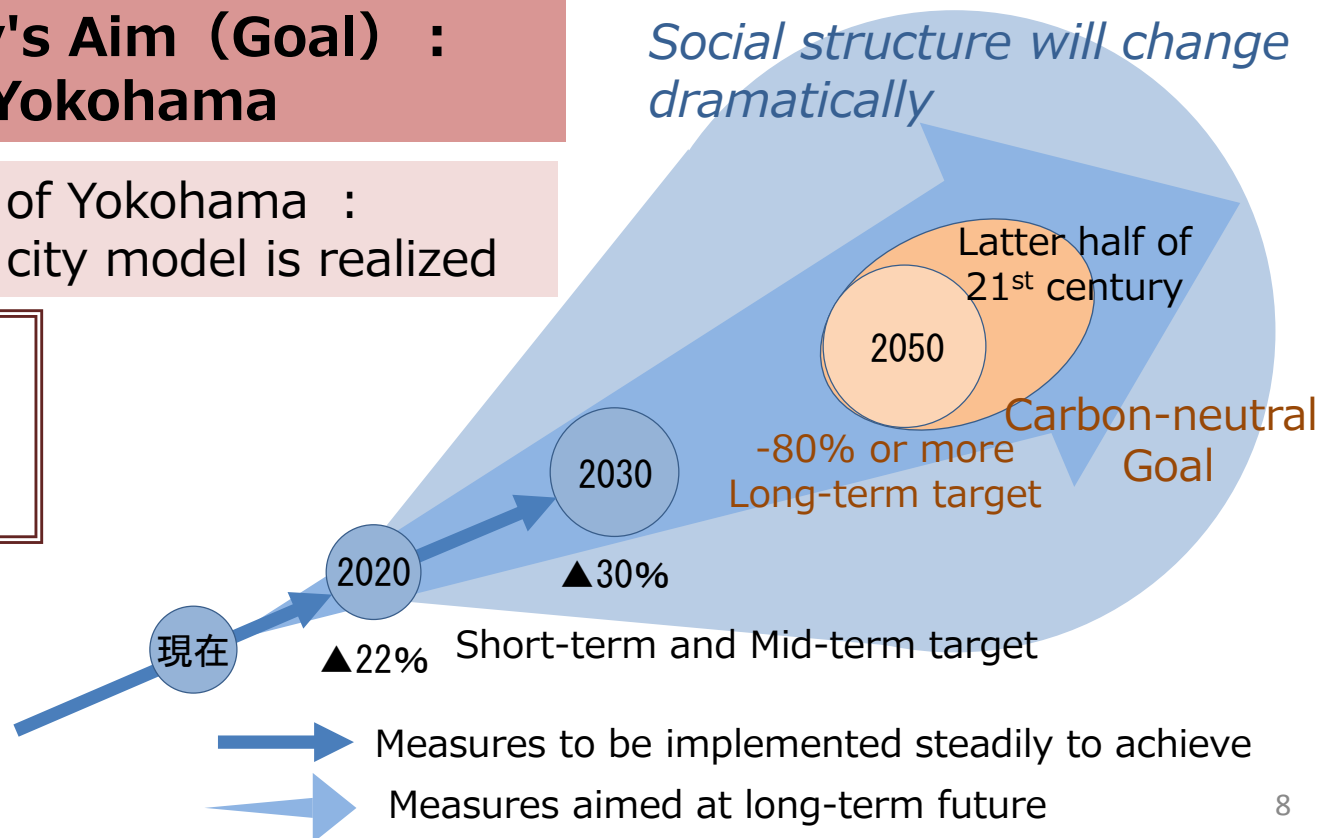
This is a plan to determine policies on the suppression of GHG emissions in the entire Yokohama area and was formulated in 2013. Today, based on the trends of the world after the adoption of the Paris Agreement and SDGs, revision work is in progress.

**Yokohama City's Aim (Goal) :**  
**Zero Carbon Yokohama**

The future image of Yokohama :  
Sustainable big city model is realized

Three Powers

- ①【Choice】
- ②【Creation】
- ③【Collaboration】



# How to realize the sustainable big city model

- For realizing the sustainable big city model, we establish basic policy.
- For implementation, the three powers of “C”(3C) are taken into account.
- 3C is a symbol of Yokohama’s strong point.

Sustainable big city model(future image)

**3C**  
power

## 【Choice】

Impact due to selection by 3.73 million people as a large customer(GHG reduction, promotion of supply side efforts)

## 【Creation】

Creation of new technologies or social system by companies or research institutions(Creation of innovation)

## 【Collaboration】

Collaboration between citizen, business and government.  
Collaboration among cities, cooperation with domestic and overseas

## Important efforts

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- Civic power and corporate collaboration
- Realizing smart city by reading-edge
- Virtuous cycle of environment and the economy
- Cooperation of the city of amazing country
- Thorough Energy Saving
- Sustainable urban development
- Realization of renewable energy and hydrogen society
- Enhancement of adaptation



# Cooperate with Various Stakeholders



Cooperation with C40



Virtual Power Plant Project

Yokohama City  
Preventing disaster higher

Public-Private Partnership

Tokyo Electric Power Company  
Safety power supply

TOSHIBA  
Developing control system



Cooperation with Private Companies



Neighborhood association, NPO corporation, Institution...



Participation in Japan Climate Initiative(JCI)



Keihin project (Collaboration with Ministry of Environment, local Neighboring governments and private companies.)



I hope for the success of ISAP2018!



**Chinatown**



**Minatomirai**



**Yokohama Port Opening  
Memorial Hall**



**Yamate Western  
Museum**



**Sankeien Garden**



**Zoorasia  
Yokohama Zoological Garden**