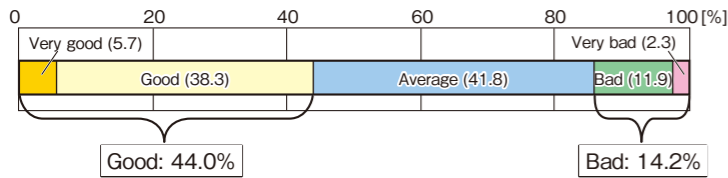


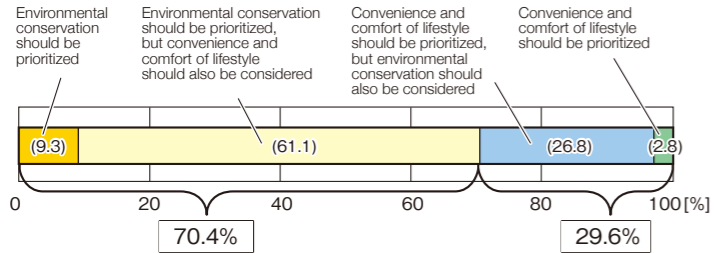


## Survey results help us understand the high level of citizen interest in environmental issues.

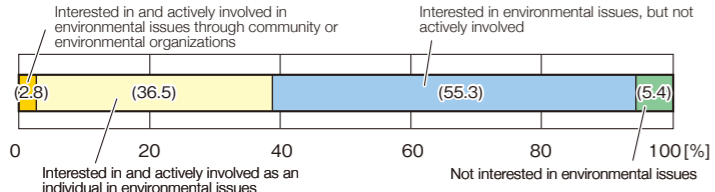
**Question:** How do you perceive the current state of Yokohama's natural environment?



**Question:** Do you think environmental conservation or convenience and comfort of lifestyle should be prioritized?



**Question:** How interested are you in environmental issues, and how involved are you in environmental conservation activities? Choose the most appropriate answer.



[Results from the Environmental Awareness Survey of Yokohama Citizens (Sep. 2011 Internet survey)]

When asked how they perceived the current state of Yokohama's natural environment, 41.8% responded with "Satisfactory," the most common response, while 44.0% answered "Very good" or "Good."

When asked whether they thought environmental conservation or convenience and comfort of lifestyle deserve priority, more than 70% of those surveyed thought "Environmental conservation should be prioritized." This told us that there is a large number of environmentally conscious citizens in Yokohama.

In response to the question concerning level of interest in environmental issues and involvement in environmental conservation activities, the majority responded with "Interested in environmental issues, but not actively involved" (55.3%). From this, we learned that many people are interested in the issues, but not to the point of taking action. By creating ways to tie people's high level of interest in the environment to activities for the sake of the environment, we can promote greater participation in environmental activities as well as individual environmental practice.

## "Yokohama Environmental Management Plan"

The City of Yokohama established a new Yokohama Environmental Management Plan in April 2011 with the goal of implementing comprehensive environmental administration.

### Comprehensive implementation of environmental administration

Global warming countermeasures and biodiversity were designated as the two primary themes, with wide-reaching measures to be implemented in cooperation with citizen lifestyles (child-raising, health and welfare, local communities, etc.), economic fields, urban development and other fields.

### Management of environmental administration processes

In order to enable steady execution of the environmental management plan, not only do we monitor the status of measures implemented, we also broadly examine past approaches and evaluate results, and utilize this feedback as a central factor in process management to monitor overall progress.

This "Yokohama's Natural Environment" leaflet summarizes the measures and undertakings outlined in the Yokohama Environmental Management Plan Annual Report (2011 edition), which is also titled "Yokohama's Natural Environment." Please take a look over the annual report, which describes in great detail the current state of Yokohama's natural environment and measures taken by Yokohama City.

The Yokohama Environmental Management Plan and the annual report can be read at the City Hall Citizens Information Center (Yokohama City Hall 1F), Yokohama ward offices, and the Yokohama City Central Library. They can also be downloaded from Yokohama City's website:

<http://www.city.yokohama.lg.jp/kankyo/etc/jyorei/keikaku/kanri/> (in Japanese)

<http://www.city.yokohama.lg.jp/kankyo/etc/jyorei/keikaku/kanri/nenjihoukoku/english> (in English)

## For those interested in learning more about Yokohama's natural environment:

Yokohama Environmental Planning Bureau website: <http://www.city.yokohama.lg.jp/kankyo/> (in Japanese)

<http://www.city.yokohama.lg.jp/seisaku/en/policies/environment/> (in English)

The Yokohama Environmental Planning Bureau is now on Twitter!

[http://twitter.com/yokohama\\_kankyo](http://twitter.com/yokohama_kankyo) (in Japanese)



"Eco-Port" website's mascot "Eco-pon"

Bureau's Twitter account

# Yokohama's Natural Environment



This leaflet provides a variety of information on the current state of the natural environment and environmental initiatives in Yokohama. We hope that this information will inspire each and every one of you to think about what you can do for the environment in Yokohama.

## Have you heard of "biodiversity"?

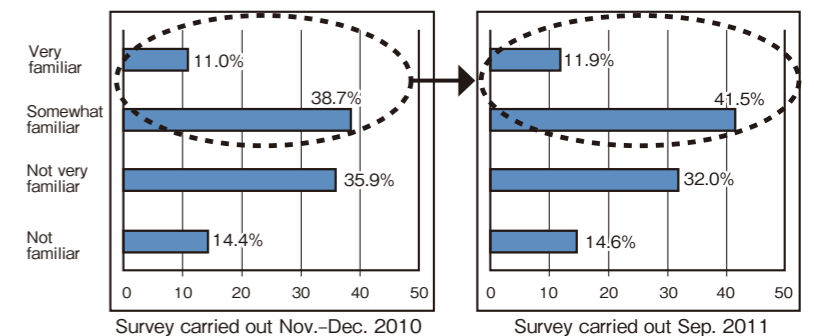
The word "biodiversity" has recently become common in everyday life.

In 2010, the 10th Conference of the Parties to the Convention on Biological Diversity (COP 10) was held in Nagoya, and due to extended media coverage of this event and other factors, the term "biodiversity" has gained wider public recognition.

The number of people familiar with the word is increasing every year. According to the Environmental Awareness Survey of Yokohama Citizens conducted in 2011, a combined total of 53.4% of respondents indicated that they were "very familiar" or "somewhat familiar" with the word, marking the first time that more than 50% of respondents showed such awareness. Furthermore, more than 60% of those surveyed felt that the biodiversity crisis was a problem of immediate concern to them, indicating an increase in awareness toward biodiversity preservation. Biodiversity has become a key factor when considering the future state of our environment.

## What is biodiversity?

Biodiversity concerns the various types of natural environments in which a wide array of unique life forms live, and how they affect each other in ways that create and support rich ecosystems. Our lifestyles — all aspects ranging from food, clothing and shelter to economies, culture and safety — depend on the blessings bestowed on us by this biodiversity.



[Results from the Environmental Awareness Survey of Yokohama Citizens]



- City of Yokohama's Biodiversity Catch-Phrase -  
The Catch-Phrase means "We love Yokohama, so let's protect the cradle of life: Forests, Rivers, and the Sea."

## Yokohama City is taking measures to protect biodiversity.

By emphasizing the importance of helping children interact directly with nature and living creatures, utilizing the dynamic and longstanding energy of local citizens and companies, taking advantage of the close proximity of nature throughout Yokohama City, and leveraging the other characteristics that make Yokohama unique, we are striving to preserve and restore biodiversity.

In order to protect and create new biodiversity in Yokohama, we have formulated a municipal biodiversity action plan known as "Yokohama b Plan," where "b" stands for "biodiversity."

### Yokohama Citizens Participate in a Biological Survey of a Rice Paddy

Rice paddies are not only places for cultivating rice — they are biologically diverse environments that host a variety of living creatures.

In August 2011, a biological survey of a paddy field in Niiharu Megumi-no-sato was carried out with the help of local citizens, and 87 different species were observed. Rice paddies are highly versatile, cultivating numerous different life-forms and ecosystems, and participants were able to experience this firsthand while learning.



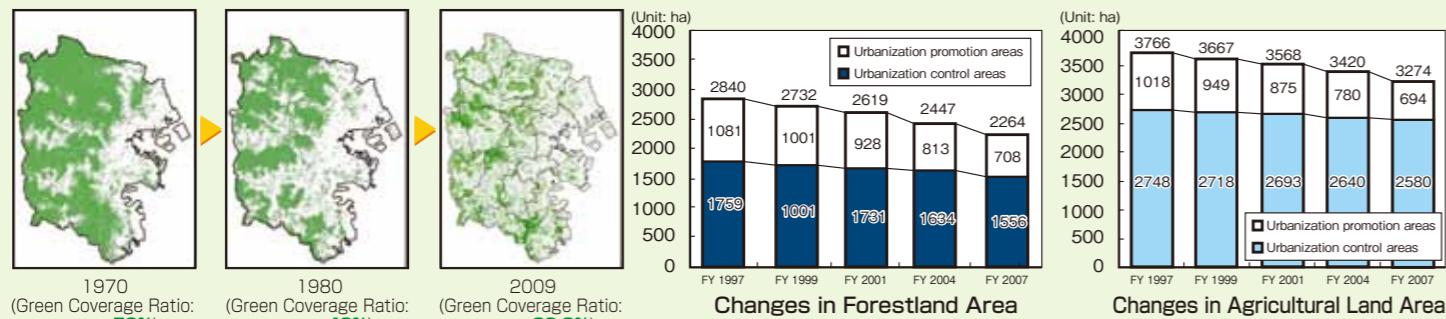
The cocoon of a species related to the parasitic wasp





## Working with everyone to protect and create precious "green space."

Natural green space is hard to recover once it has been lost, and continuing urbanization in Yokohama City has **destroyed much forestland and farmland**. According to the 2008 "Citizens' Awareness Survey on Yokohama Greenery," an exceptionally high 98% of respondents called for increased green space and maintenance of existing greenery, highlighting the urgency of measures to protect and create new green space in Yokohama.



**Changes in Green Coverage Ratio**  
 (Green Coverage Ratio: approx. 50% in 1970, approx. 40% in 1980, approx. 29.8% in 2009)  
 \* Green coverage survey methods and precision vary for each year shown. The figures above are meant to convey general trends.

**Changes in Forestland Area**  
 \* Calculated based on records of fixed assets and other such documentation.  
 (For agricultural land: calculated based on total farmland in productive green districts and in urbanization control areas)

**The loss of farmland** is one factor behind the decrease in overall green space. Agricultural land not only produces fresh fruits and vegetables for people to eat, it serves a wide range of other roles including preserving biodiversity and alleviating the heat island effect while preventing disasters. Proactive consumption of Yokohama agricultural products helps to preserve this beneficial farmland.



In order to put a stop to the loss of green space in Yokohama and create a city with abundant greenery to pass on to the next generation, we started the "Yokohama Greenery Plan (New/Expanded Measures)" in FY 2009 for the creation of new green space and the expansion of existing greenery areas. Partially funded through funds collected from citizens through the "Yokohama Greenery Tax," the plan is based on the three principles of "Forest preservation," "Farmland preservation" and "Greenery creation."

Main results as of FY 2010 include **protection of 205.3 hectares of forests** by designating them preservation areas; creation of a support system for farmers who commit to 10 years of wet-rice cultivation, resulting in **protection of 100.2 hectares of paddy fields**; **planting of lawns in the gardens and schoolyards of 67 nursery schools, preschools, elementary schools and junior high schools**; and other achievements that provide people with everyday spots to commune with nature.



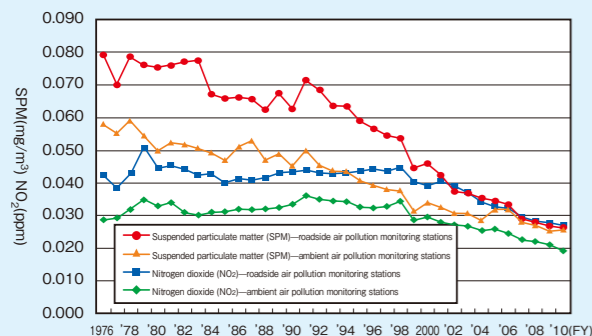
Water Environment Character "Dai-chan the Hippo"

## Cleaner air and water through better ingredients in fuels, sewerage construction regulations and guidance for factories, and other measures.

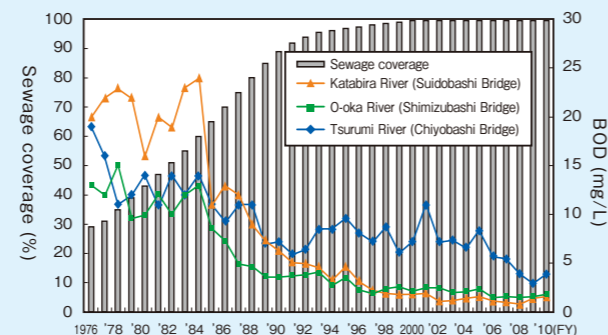
The average density of nitrogen dioxide, a common air pollutant, has been **decreasing continuously** due to use of cleaner ingredients in fuels, stricter regulations and increased guidance at industrial and business sites, and tighter regulations on automobile exhaust.

Furthermore, we are making **significant water quality improvements** in rivers through sewerage construction and regulations on wastewater disposal at factories.

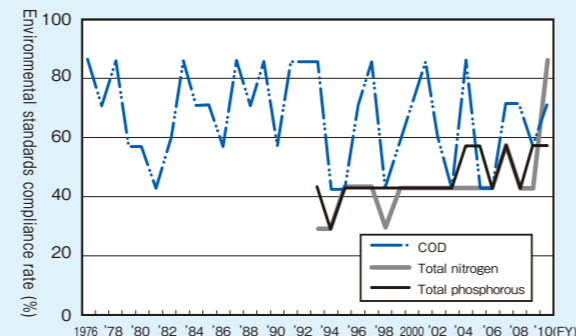
In Yokohama coastal zones, **we still face challenges** at sites where the organic contamination index (COD), as well as nitrogen and phosphorous levels (causes of eutrophication) are not satisfactory. In response, we are developing additional advanced sewage treatment facilities and proceeding with other countermeasures to improve final effluent water quality.



Yearly Averages for Air Pollutants



Sewage Coverage and River Water Quality (BOD 75% Water)



Changes in Environmental Standards Compliance for COD, Total Nitrogen and Total Phosphorous in Yokohama Coastal Zones



Yokohama Anti-Global Warming Character "Minna no Earth-kun"

## Working together to reduce CO2 emissions and save energy.

In FY 2008, Yokohama's global greenhouse gas emissions were approximately 19.79 million tons, which accounted for **about 1.5% of the nationwide total**.

Carbon dioxide (CO<sub>2</sub>) accounted for a large proportion of these emissions. When the distribution of CO<sub>2</sub> emissions in Yokohama is compared to that nationwide, the manufacturing sector only accounts for a small amount, whereas energy conversion (oil refining, electric power and gas industry) and private households (emissions from daily household activities) account for a large percentage of overall CO<sub>2</sub> emissions.



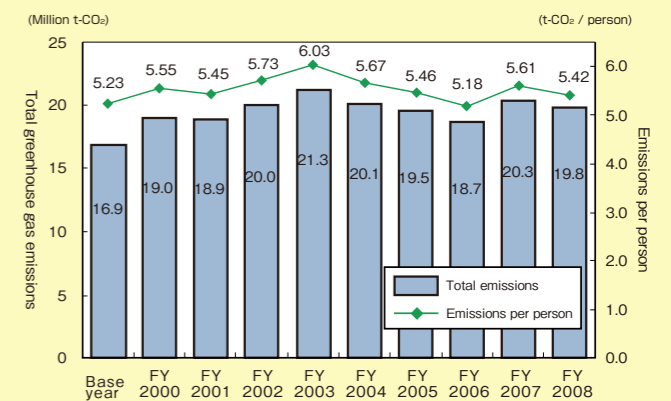
In 2011, the citizens of Yokohama City were asked to conserve energy, and they attained success from July to September of that year by **reducing power usage by 15.3%** compared to the previous year.\*

Each citizen showed their ability to live in an environmentally friendly manner in response to the summer power outages.

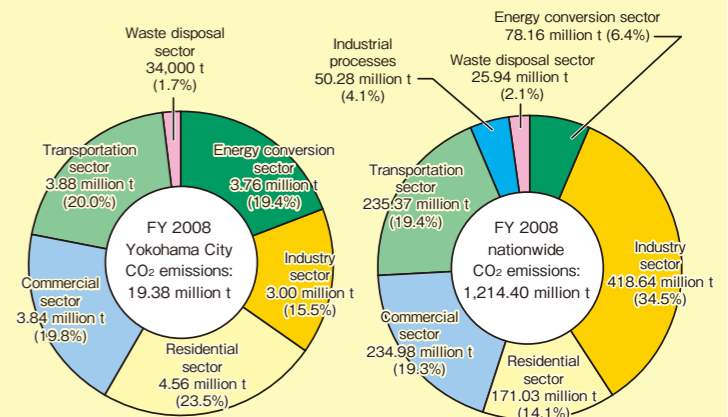
\* The region defined by Tokyo Electric Power Company for electric power distribution purposes does not include all of Yokohama City.

In addition, we are implementing the "Yokohama Smart City Project" to make Yokohama a comfortable, low-CO<sub>2</sub>-emissions city where people can use energy safely.

\* The Yokohama Smart City Project (YSCP) is a joint project with private-sector companies to promote implementation of smart grid (next-generation electric power grid) and related technologies.



Greenhouse Gas Emission Volumes in Yokohama



\* The sum of parts may not match totals due to rounding.

Comparative CO<sub>2</sub> Emission Volumes by Sector in Yokohama City and Nationwide in Japan (FY 2008)

## ★ Yokohama selected as a "FutureCity"!

"FutureCities" are cities elected by the national government for advanced measures and efforts in support of the environment, against aging society, etc. They receive various form of government support once selected, and successful policies and measures they generate are spread to other parts of Japan and the world.

Yokohama implemented "Smart City" measures citywide, exported its water and sewage technology, carried out compact city planning, promoted arts and culture, promoted the city as a MICE (Meeting, Incentive Tour, Convention and Exhibition) destination, and implemented other measures, to which the national government responded by designating it as a "FutureCity" in December 2011.



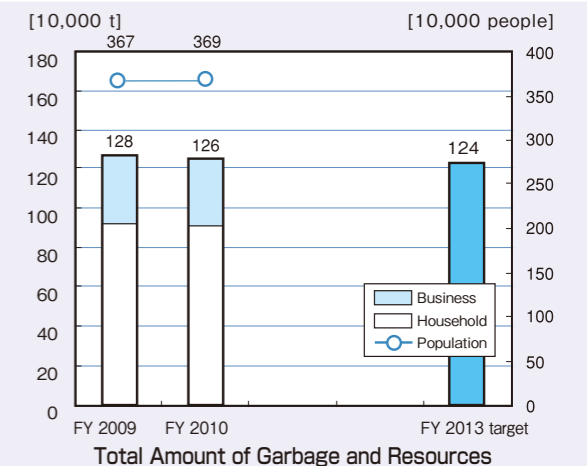
"Yokohama 3R Dream" mascot "Io"

## Taking on new challenges through further garbage reuse and reduction.

Building on the efforts of the Yokohama G30 Plan, the new "Yokohama 3R Dream Plan" was established in January 2011.

Aside from separation and recycling of garbage, we are working together with local citizens and businesses to **reduce the amount of waste disposed of**, with the goal of realizing a recycling-oriented society.

In FY 2010, Yokohama City produced approximately 1.26 million tons of waste (total amount of garbage and resources), which was a **1.1% reduction** (approx. 14,000 tons) from the previous year.



Total Amount of Garbage and Resources