

# Yokohama's 2010 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.



~ 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."



## *Our daily lives have deep ties with biodiversity*



### Have you been hearing the word "**biodiversity**" often these days?

Biodiversity is the degree of variation of life with different characteristics and forms that maintain abundant ecosystems in the various natural environments around the world. Our daily lives are deeply connected to biodiversity. Today, biodiversity is threatened by human activity, including development, hunting, fishing, the introduction of invasive alien species, and global warming.

It is the same in our city of Yokohama, where we are no longer able to find many native species of plants and animals that were once common here, such as insects like fireflies, dragonflies, grasshoppers, and butterflies, or plants like horsetails and goldband lilies. The number of species and their populations are also decreasing. This phenomenon means that biodiversity is also being lost in Yokohama. Sadly, animals seen and heard in nursery rhymes when we were children, such as "Medaka no gakko" ("Killifish School") and "Kaeru no gassho" (Frog Chorus), will eventually only live on in those stories.

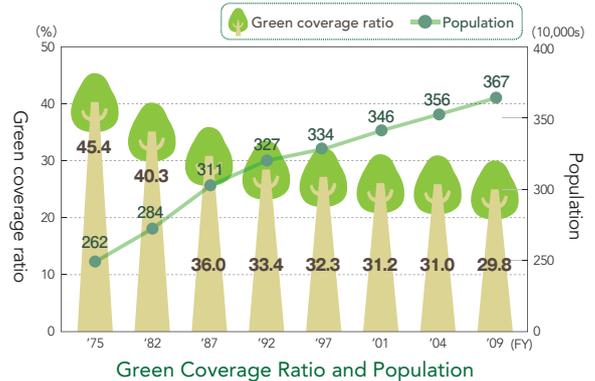
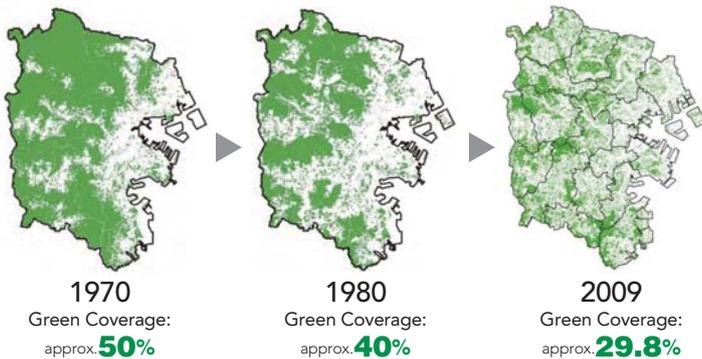
For Japanese, who believe in the importance of harmony with nature, biodiversity concerns not only living things but the culture that is born from those living things. The loss of biodiversity means the loss of culture as well.

The City of Yokohama has been working to protect this biodiversity through such measures as the construction of parks that enable plants and animals to coexist, and greening activities in cooperation with companies and citizens. As a citizen of Yokohama, please start by taking a look at your natural surroundings, and the animals and the plants around you, and join us in protecting the biodiversity of the City of Yokohama.

# Your cooperation will help conserve the declining greenery in Yokohama



In the City of Yokohama, urbanization due to population growth has led to the continued decrease in the ratio of green coverage, which represents the total amount of greenery. The city has carried out citywide surveys at 5-year intervals to examine changes in its total green coverage, and according to the survey, approximately 100 hectares of green coverage were lost each year over the five years from FY 2004 to FY 2009. Taking these facts into account, the city started its Yokohama Greenery Plan in FY 2009 for the creation of new areas of greenery and the expansion of existing greenery areas. The plan is based on three principles: protecting forests, protecting farmland, and cultivating greenery through the Yokohama Midori (Greenery) Tax, shouldered by the citizens and companies of Yokohama.



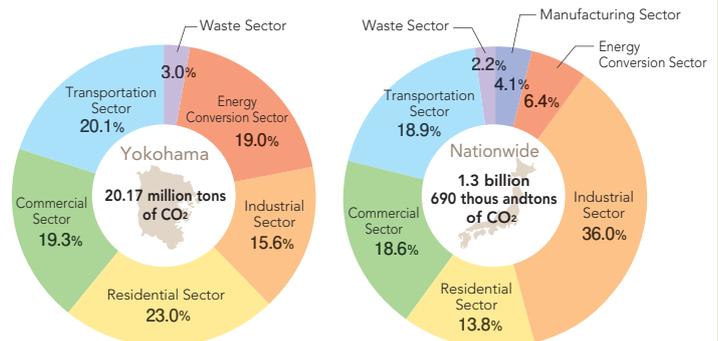
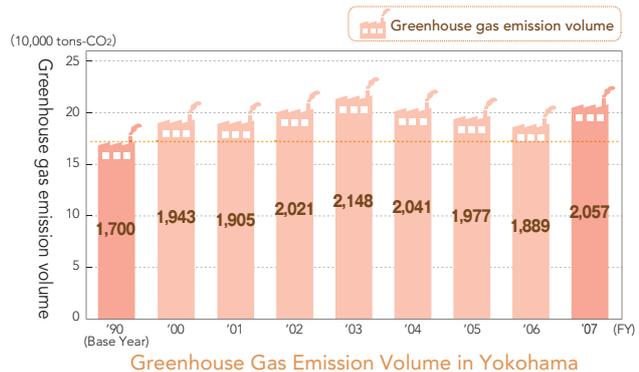
\* The figures depicted are approximate trends, as the method and accuracy of the surveys differ from year to year.



# Further CO<sub>2</sub> reduction needed for the future of the Earth



The amount of greenhouse gases emitted in Yokohama in FY 2007 corresponded to 1.5% of the total emissions nationwide. This is an approximately 21.0% rise compared to FY1990, the base year of the Kyoto Protocol. Based on a study of the factors behind carbon dioxide emissions, which account for about 98% of greenhouse gases, Yokohama has a relatively high residential emissions ratio when compared to national figures. Because of its large population, Yokohama must take active measures to reduce CO<sub>2</sub> emissions in the residential sector. In addition, the City of Yokohama has been promoting its Yokohama Smart City Project\* (YSCP) in order to construct a world-leading next-generation energy and social system.



### \* Yokohama Smart City Project:

The City of Yokohama is cooperating with the private sector to demonstrate smart grid-related (next-generation power networks) and other technology in order to reduce CO<sub>2</sub> emissions and stimulate the local economy. The project was designated a "next-generation energy and social system demonstration area" by the Ministry of Economy, Trade and Industry in April 2010, and will span the next five years.

Component Ratio of CO<sub>2</sub> Emission Volume – Yokohama vs. Japan (FY 07)

# The air and river water in Yokohama are getting cleaner

## One more step in measures to help the marine environment



The average density of nitrogen dioxide, a typical air pollutant, has been decreasing continuously due to tighter regulations on automobile exhaust as well as stricter enforcement of regulations on industrial and business sites in Yokohama.

The quality of river water (BOD\*) has improved greatly because of regulations on industrial water discharge and sewerage maintenance.

As for the water quality of the marine area, seven investigation sites have been set up, including inside the Port of Yokohama, and water quality investigations are being conducted every year. However, at some sites, the organic contamination index (COD\*) and nitrogen and phosphorus levels do not meet environmental quality standards for preventing eutrophication.\*

**\* BOD:**

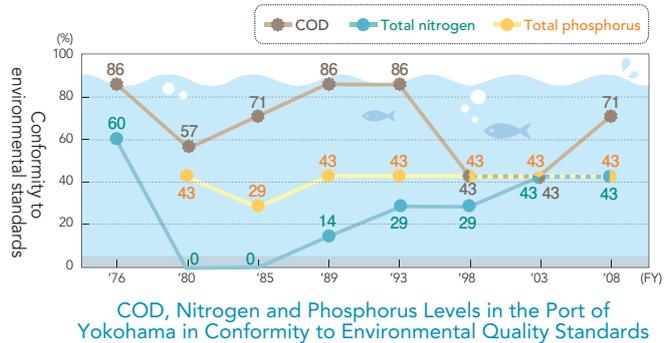
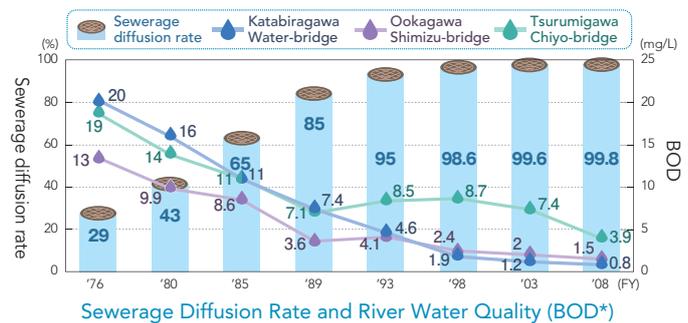
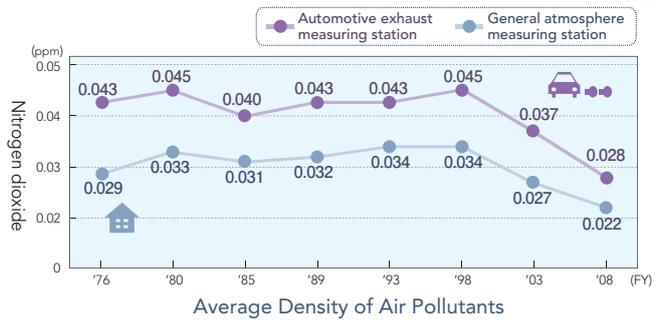
The amount of oxygen required by microorganisms that consume pollutants in order to break them down. BOD is higher when there is more water pollution.

**\* COD:**

A chemically measured value of the amount of pollutants in water. COD is higher when there is more water pollution.

**\* Eutrophication:**

A phenomenon likely to cause red tides as a result of nitrogen and phosphorus in the water being discharged from houses and factories into the ocean, with their volume exceeding the self-cleansing capacity of the ocean.



## Waste reduction is being promoted through separation and recycling



Wow, the amount of waste is decreasing!

With the kind understanding and cooperation of citizens and businesses, the volume of waste is continually decreasing. The waste volume (by a quick estimate) in FY 2009 was about 0.93 million tons, which is a 42.2% reduction compared to the base year (FY 2001) of the Yokohama G30 plan. The City of Yokohama will continue its efforts to achieve a recycling society. Please help us reduce and recycle waste even more.



# Yokohama's environment is supported by its citizens and businesses

Various environmental activities are being carried out in Yokohama, such as cleaning parks, rivers, waterfront facilities and forests, as well as greening programs on company property. We will continue to support efforts among citizens and companies so that they can take interest and participate in environmental activities.

## Support Programs for Environmental Activities (by Category)

<b>Financial assistance</b>	<ul style="list-style-type: none"> <li>● Financial assistance for organizations and groups that are involved in environmentally-friendly community-building, environmental conservation activities, resource-collecting, volunteer activities for creating forests, forest protection, etc.</li> <li>● Financial assistance for greenery-creation activities such as creating flowerbeds, rooftop gardening, etc., and financial incentives for activities protecting farmland such as maintaining farmland, footpaths, and slopes.</li> </ul>
<b>Training Programs</b>	<ul style="list-style-type: none"> <li>● Activity promotion training for environmental activity organizations and those aiming to establish environmental activity organizations.</li> <li>● Lectures at elementary schools and for local citizens to develop human resources for greater understanding of environmental problems, such as global warming, the conservation and reuse of water and greenery, and environmentally-friendly behavior.</li> <li>● Technical training and workshops for satoyama management, etc.</li> </ul>
<b>Awards</b>	<ul style="list-style-type: none"> <li>● Yokohama Environmental Activities Award (given to organizations that work active in various environmental activities)</li> <li>● Park Protection Association Award (given to an individual, organization, or company that is active in the maintenance, management, etc., of parks)</li> <li>● Yokohama Environmental Action Award "Yokohama G30" (given to an individual, organization or company that promotes waste reduction and recycling).</li> </ul>
<b>Information services</b>	<ul style="list-style-type: none"> <li>● Establishment of the Environmental Action Information Website aimed at easy access to centrally organized information about environmental activities in accordance to citizen needs. The site provides information on various events, a list of civil activity organizations, and environment-related initiatives by companies.</li> </ul>

★ For details, please visit <http://www.city.yokohama.jp/me/kankyoku/kkjs/>

## Everyone can do something for the environment

The natural environment of Yokohama will improve even further if each citizen does their own part. Let's start with what each and every one of you can do for the environment in your daily lives. This year is International Biodiversity Year. Please lend a hand in protecting biodiversity in Yokohama.

