

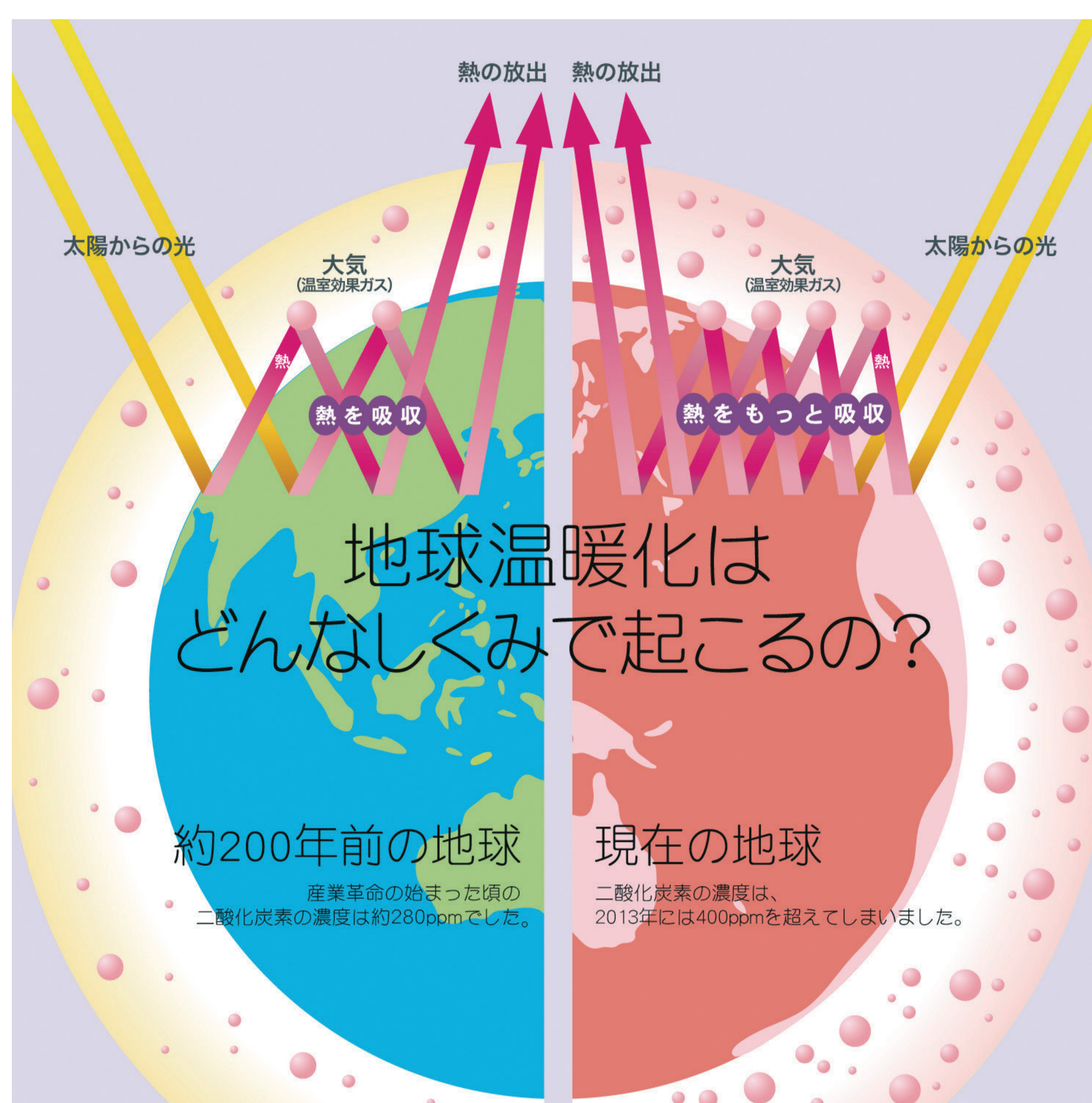
# Decarbonization



## What is global warming?

Global warming is a phenomenon in which greenhouse gases that absorb heat, such as CO<sub>2</sub> (carbon dioxide), increase due to human life and economic activities, while the amount of CO<sub>2</sub> absorbed decreases due to deforestation, so the concentration of CO<sub>2</sub> increases which in turn causes the temperature of the earth to rise. If global warming progresses, climate change is expected to have a serious impact on nature and human society, such as changes in ecosystems, problems with food, and more abnormal weather.

In the Paris Climate Accord, countries around the world have set a common long-term goal of "keeping the temperature rise well below 2° C above pre-industrial levels and maintain it within 1.5° C to curb global warming." To limit the temperature rise to 1.5° C, we need to reduce global CO<sub>2</sub> emissions to virtually zero by around 2050, and measures to counteract global warming should be tackled immediately by the entire world.



Global warming mechanism  
Source: Japan Center for Climate Change Actions website (<https://www.jccca.org/>)

## Facing the climate crisis

According to the Japan Meteorological Agency, the average global temperature in 2020 was the highest on record. The average annual temperature in Japan also has repeating changes yet continues to rise.

Because of climate change, abnormal weather conditions such as rising sea levels, floods, and heavy snowfall happen around the world. In Japan, Typhoon No. 19 made landfall in 2019, causing extensive flooding and damage to buildings in Kawasaki City. The impact from similar events due to climate change is expected to become even greater in the future.



Coastal erosion in the Marshall Islands

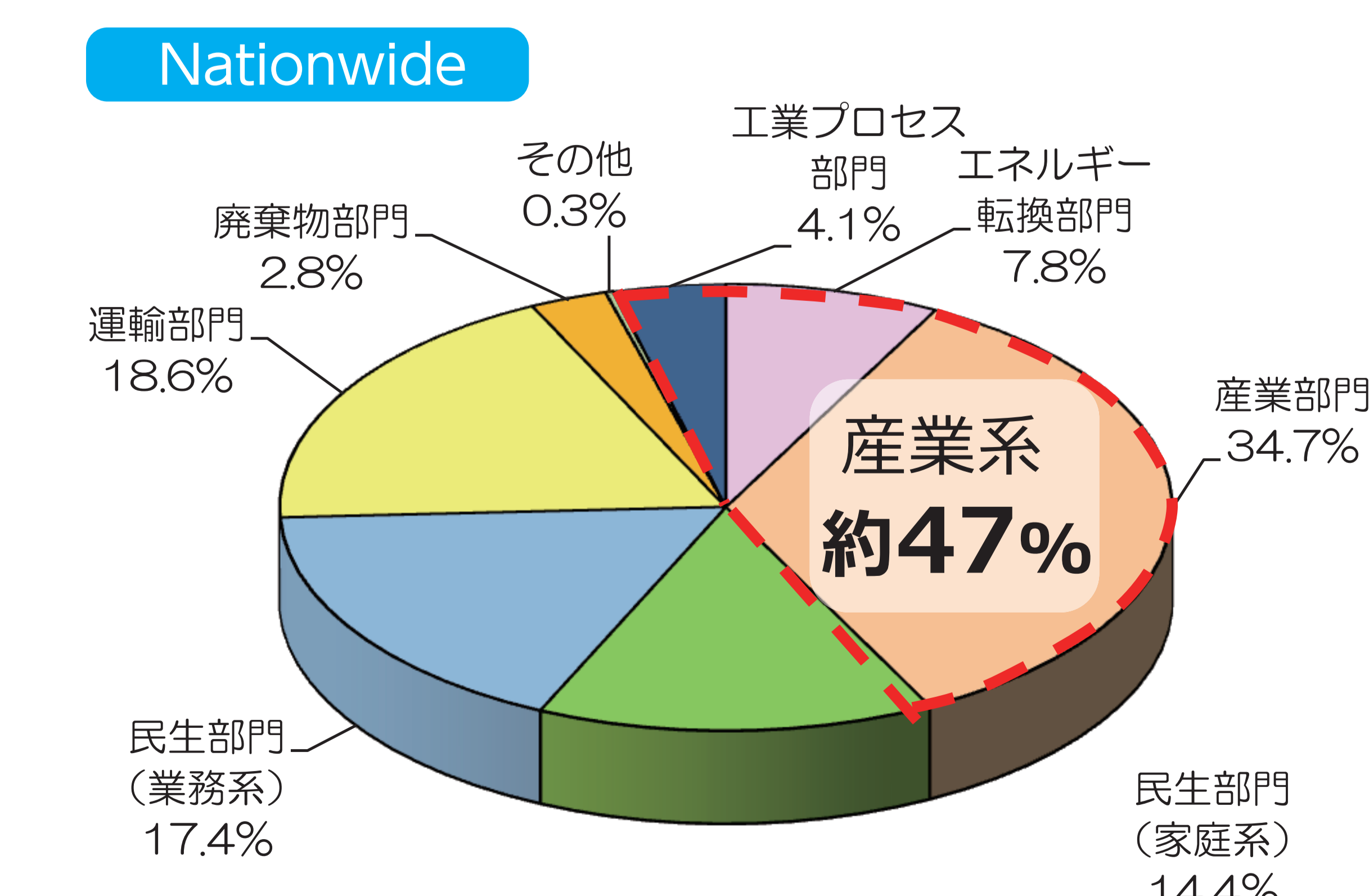
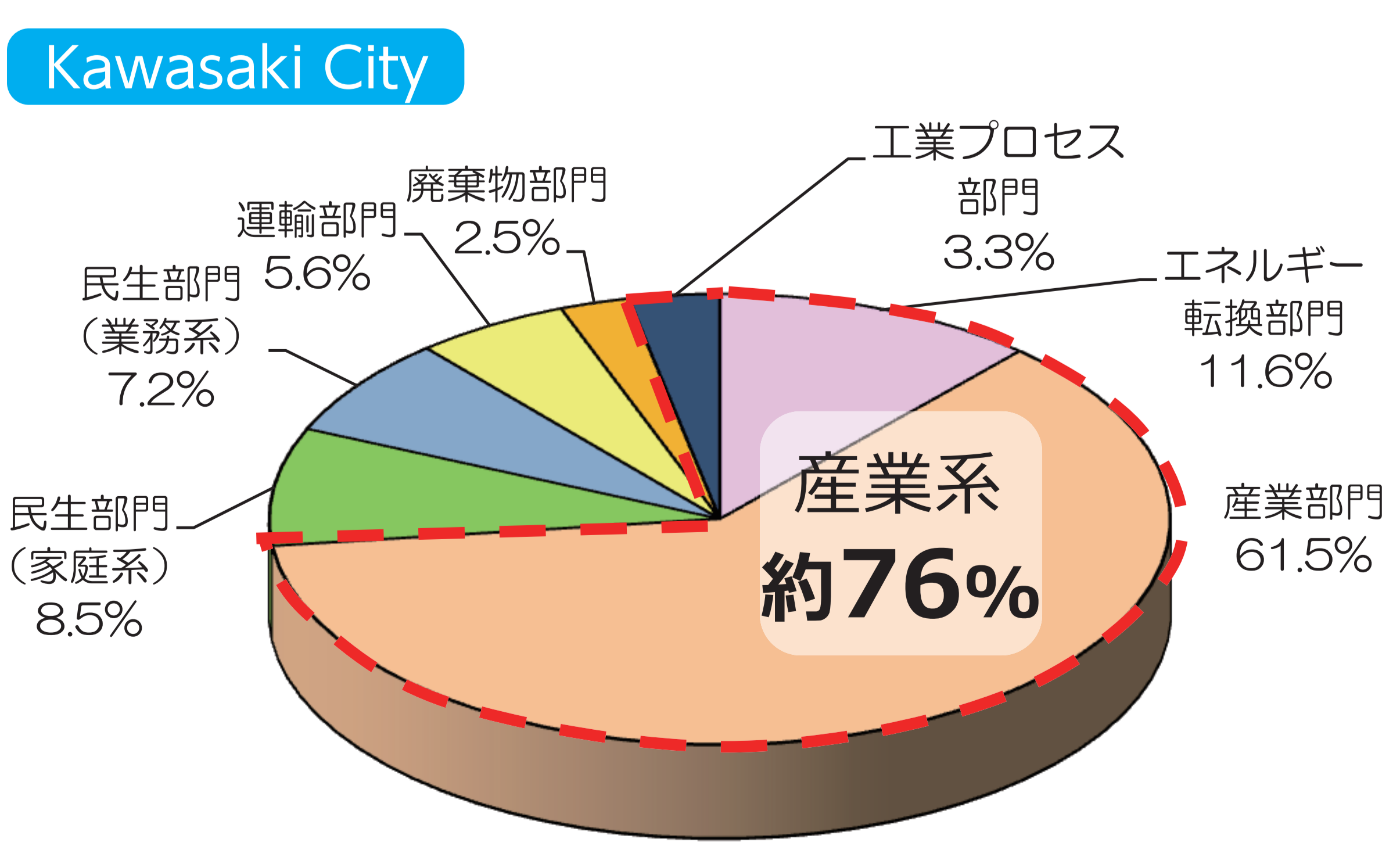


Kamo river flooded after a typhoon (Kyoto)

Source: Japan Center for Climate Change Actions website (<https://www.jccca.org/>)

## Situation around Kawasaki City's measures against global warming, etc.

Kawasaki City drives the Japanese economy as the core of the Keihin Industrial Zone, but it also emits the most greenhouse gases among ordinance-designated cities (provisional values for FY2019). In addition, industry, industrial processes, and energy transfer account for about 80% of CO<sub>2</sub> emissions, which is much higher than the national average. As societies and businesses around the world transition to decarbonization, Kawasaki City, which has these characteristics, must also work to realize a decarbonized society.



Composition ratio of carbon dioxide emissions in the city by sector (provisional values for FY2019)  
Source: Kawasaki City Basic Plan for Promoting Measures for Global Warming