

# - Climate Change in Japan -

**Climate change**, one of the biggest challenges of the 21<sup>st</sup> century, is affecting both the environment and people's lives in Japan.

The **average annual** temperature has increased by 10 Celsius in Japan over the last century. The number of days with **maximum** temperatures higher than 35° Celsius has increased. Days with heavy rain and days with no rain at all have also increased. These cause more **heatwaves**, putting **vulnerable** groups, such as the elderly, at high **risk**.

Along Japan's **coast**, sea levels have been rising 5 mm per year since 1993. Scientists **estimate** that for every one-meter rise in sea level, there is risk to **assets worth** US\$1 trillion due to **storm surges**, typhoons, and **coastal erosion**. **Infectious** and **allergy**-related **diseases** are more likely to spread. Although there is a potential **temporary** increase in grain **harvest yield** in Hokkaido, a 40% **reduction** in rice yields in central and southern Japan will result in an overall loss. Some plants, birds, and insects are also in danger of becoming **extinct** due to unfavorable weather.

21世紀最大の課題の一つである気候変動は、影響を与えている日本の環境と人々の生活の両方に。

年間平均気温は10℃上昇した日本の過去1世紀で、最高気温が35℃を超える猛暑日数が増加してきている。大雨の日や全く雨が降らない日もまた増えてきている。これが熱波を頻発に引き起こし、高齢者などの脆弱なグループを高いリスクにさらしている。

日本の沿岸では、海面が年に5mmずつ上昇している。1993年以降、科学者たちは推定している。海面が1メートル上昇するごとに、1兆ドル相当の資産が危険にさらされると、高潮や台風、海岸浸食によって、感染症やアレルギー関連疾患の蔓延も懸念されている。高潮や台風、海岸浸食によって、一時的に穀物収量の増加が見込まれるものの、北海道で、米の収穫量が40%減少し、中央および南日本では、全体的な損失となる。一部の植物や鳥、昆虫は、また、絶滅の危機に瀕している。好ましくない天候のために。

## Vocabulary and Phrases

climate change	気候変動
average	平均
annual	年間
maximum	最大
heatwaves	熱波
vulnerable	脆弱な
risk	リスク / 危険
coast	沿岸
estimate	推定する
assets	資産
worth	価値がある
storm surges	高潮

coastal erosion	沿岸侵食
infectious	伝染性の
allergy	アレルギー
diseases	疾病
temporary	時的な
harvest	収穫
yield	収量
reduction	減少
extinct	絶滅した

Total Number of words used

: 175 words

Time for 100 wpm

: 105 sec.

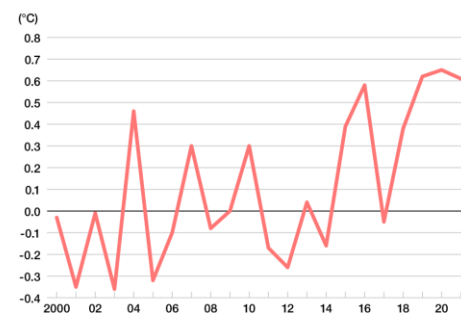
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Your BEST TIME

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Japan's Average Annual Temperature



Created by Nippon.com based on statistics from the Japan Meteorological Agency.

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**【Listen & Fill Blank】**

Climate change, one of the biggest \_\_\_\_\_ of the 21st \_\_\_\_\_, is affecting both the environment and people's lives in Japan.

The average \_\_\_\_\_ temperature has increased by 1<sup>o</sup> \_\_\_\_\_ in Japan over the last century. This means that there are more hot days, with \_\_\_\_\_ temperatures even higher than 35<sup>o</sup> Celsius. Days with \_\_\_\_\_ rain and days with no rain at all have also increased. These cause more \_\_\_\_\_, putting \_\_\_\_\_ groups, such as the elderly, at high risk.

Along Japan's coast, sea level has been rising 5 mm per year since 1993. Scientists \_\_\_\_\_ that for every one-meter rise in sea level, there is risk to \_\_\_\_\_ worth US\$1 trillion due to storm \_\_\_\_\_, typhoons, and coastal \_\_\_\_\_. Infectious and allergy-related diseases are more likely to \_\_\_\_\_. Although there is a potential temporary increase in grain \_\_\_\_\_ yield in Hokkaido, a 40% reduction in rice yields in central and southern Japan will result in an \_\_\_\_\_ loss. Some plants, birds, and insects are also in danger of becoming \_\_\_\_\_ due to unfavorable \_\_\_\_\_.

**【Q&A / A&Q】**

**Question 1:** "Days with no rain have decreased."

(a) True (b) False

**Question 2:** Give the example of vulnerable group mentioned in the lesson.

**Question 3:** Every year, how much sea water level has risen since 1993?

**Ask 1:** 摂氏 1 度という答えを持つ質問をする。

**Ask 2:** 授業の中で、気候変動によって蔓延する可能性の高い病気について質問する。

**Ask 3:** 気候変動についてどんな質問でもしてください。

**Sample Answer 1:** (b) False.

**Sample Answer 2:** Elderly.

**Sample Answer 3:** 5 mm.

**Sample Question 1:** By how much has the average annual temperature increased over the last century?

**Sample Question 2:** What kind of diseases are more likely to spread due to climate change?

**Sample Question 3:** What do you think is the most dangerous impact by climate change? / What can general people do to solve climate change?