Unit 4

Climate Change

Listening (p. 36))

Causes of Global Warming

Paragraph 1 (トラック26：Q1 / Q2 / Q3)

The Earth is warmed by the Sun. Much of this heat returns to space, but some of it is **trapped** by gases in the **atmosphere**. Thanks to these gases, our planet has been able to provide the ideal conditions for life. But since the Industrial Revolution, humans have been burning more and more **fossil fuels**, which release carbon dioxide and other greenhouse gases. As a result, the Earth is becoming warmer. Scientists **predict** that by the year 2100, the average yearly temperature will probably rise by more than 3 degrees Celsius unless we greatly **reduce** our greenhouse gas emissions.

Paragraph 2 (トラック27：Q4 / Q5 / Q6 / Q7 / Q8)

There are three main greenhouse gases: carbon dioxide, methane and nitrous oxide. About 65% of all global warming from human activity is caused by carbon dioxide, which is emitted mainly by power stations, factories and automobiles. Methane is responsible for about 18%, and emissions are related to cattle farming, mining, cement production, garbage landfills and rice production in particular. Nitrous oxide is the third greenhouse gas, and that’s **primarily** due to the use of **fertilizers**.

Paragraph 3(トラック28：Q9 / Q10)

Another reason that temperatures are rising is the destruction of so-called “carbon sinks” such as forests, which absorb and store carbon. When forests are cut down and burned, the carbon is released. **Soil** is another carbon sink, but when the land is disturbed by intensive farming, it releases carbon rather than absorbing it.