Climate Change

### What is Climate Change?

Climate change refers to long-term, macro shifts in temperature and weather patterns. With the sun’s different activity and volcano’s eruption, such shifts can be naturally happening. However, since the start of industrial revolution, human activity has become a crucial factor of affecting global climate, having much bigger influence than the natural effects.

Mainly due to the burning of the fossil fuels like coal, oil, and gas, greenhouse gasses like carbon-dioxide and methane are generated. These gasses absorb heat from the outer space, causing the temperature of earth to increase abnormally. Also, clearing land and cutting down forests can also cause the release of greenhouse gasses.

### Impact of Climate Change

Although changing slowly and long-termly, climate change has huge effect to human’s daily life and can’t be treated easily.

The most straightforward impact is the rise of temperature, also known as global heating. It can cause more frequent heatwaves and higher rate of wildfire. It also results in another problem of sea level rise, creating more flooding and salt water invading fresh weather. More extreme weather like hurricanes and typhoons may also cause casualties and property damage. Other impacts like ecosystem disruption, threats to food security, and human health risks are also important and can not be ignored.

### Our Solutions

Although the challenge of global climate change is serious and huge, human beings already know many solutions to it.

#### Switch to Clean Energy

The most straight forward way is to reduce the use of fossil energy and switch to cleaner, and renewable energy such as solar, wind, hydro, and geothermal. Since earth are taking energy from the sun in many different ways, the rational use of these methods can greatly reduce the dependence on fossil energy, therefore solving climate change at the source. Clean transportation such as EV or Hydrogen cars can also help to reduce the output of greenhouse gasses. We can also reduce industry emissions by introducing new technologies like carbon capture and storage, and green steel and concrete.

#### Protect and Restore Nature

Since nature plants are an important factor that can absorb carbon dioxide, the protection of forests, wetland, and oceans become a crucial way to solve global heating. Two aspects are needed for consideration. In one way, we need to prevent deforestation. This can be achieved by establishing nature reserves, strengthen supervision and management, and the introduction of corresponding policies. In the other way, we need to reforestation to compensate for the destruction of nature. By using new technologies to grow trees more efficiently, we can enhance the sinking of carbon while protect biodiversity.

#### Shift to Sustainable Food and Material

The global food system is a major contributor to greenhouse gas emissions, deforestation, and water consumption. By embracing more plant-based diets, reducing food waste, and supporting eco-friendly farming practices, we can significantly lower our environmental impact. Similarly, using sustainable materials—such as recycled plastics, organic fabrics, or biodegradable packaging—helps reduce pollution and resource depletion. Transitioning away from single-use plastics and high-emission materials like conventional concrete or steel can also cut carbon emissions. These changes not only help the planet but also promote healthier lifestyles and support green innovation in agriculture and manufacturing.

#### Government Policy and Individual Action

Government policy and individual action both play key roles in fighting climate change. Governments create laws and regulations that guide industries and promote clean energy, while individuals make daily choices like saving energy, reducing waste, and supporting eco-friendly products. Policy works on a large scale, but personal actions help build momentum and push for change from the ground up. Together, they create a powerful force for a sustainable future.

### Conclusion

In conclusion, climate change is a serious global issue that affects every aspect of our lives. While its causes are complex, we have many effective solutions—from clean energy and sustainable living to strong policies and individual actions. By working together, we can protect our planet and ensure a healthier, more sustainable future.

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