

LEARN & ACT

The Threat We are Facing

- In January of 2002, 3250k² of Antarctica's Larsen B Ice Shelf collapsed.
- In the summer of 2007, the Arctic sea ice that had remained frozen for the past thousands of years started melting. Its surface area shrunk to a quarter of what it was before.
- Why is this happening?



1. The threat we are facing – climate Change



Climate: The average of weather data over a long time in a place.

Climate change: Phenomenon in which the climate gradually changes over time

2. How has the climate changed?

- Global warming, a dramatic change in the past 100 years
- Other changes that occur along with global warming



1 °C for 100 years ↑

3. Why has the climate changed?



4. Why did greenhouse gases increase? (1)

- Coal and oil, the historically most efficient energy source
- Material abundance and convenience of life achieved using fossil fuels



4. Why did greenhouse gases increase? (2)

- Methane emitted by livestock
- Excessive meat consumption by humans in modern day



4. Why did greenhouse gases increase? (3)

- Huge increase in the amount of garbage & production of greenhouse gases in breaking down the garbage
- Indiscriminate deforestation & reduction in the Earth's ability to self-purify through forests



Climate change in our daily lives

- Have you experienced the impact of climate change in your life?
- Look for evidence of climate change in our surroundings.



5. What problems does climate change cause? (1)



Due to accelerating global warming, ecosystems are changing around the world and genetic variations are occurring. The photo is of a mutated apple discovered Devon, England. ©Royal Horticultural Society

• Affects 82% of the ecosystem

Genetic variation, increase in mosquitoes, extinction of marine life

• Threat to human survival

5. What problems does climate change cause? (2)



Threat to humanity's health: Germs and pests, contamination of water sources

Increase in natural disasters: Floods, typhoons, droughts, landslides, forest fire

5. What problems does climate change cause? (3)





Loss of arable land due to desertification, floods and forest fires: Extinction of species and decrease in crop yield

Water shortage

5. What problems does climate change cause? (4)



Acceleration of global inequality

Developing countries and those living in poverty are more vulnerable to the impacts of climate change such as natural disasters, food shortages, loss of home

It can no longer be neglected!

- Now is the time to take action!
- The Earth's temperature will rise 6°C at most by 2100!
- For every 1°C increase in temperature, mortality rate increases by 3% and the risk of malaria increases up by to 20%.



6. How can we stop climate change?

Cut greenhouse gas emissions in half by 2030

Eliminate greenhouse gas in the atmosphere by 2050

Global cooperation is necessary



7. National efforts to combat climate change



Paris Agreement on Climate Change (2016)

Kyoto Protocol (2005)

UNFCCC (1994)

7. National efforts to combat climate change

Kyoto Protocol		Paris Agreement
Reduction of greenhouse gas emission (1st: 5.2%, 2nd: 18%)	Goal	Target of 2°C, efforts to reach 1.5°C
Focus on reduction of greenhouse gases	Breadth	Reduction of greenhouse gases as well as application, finance, technology transfer, capacity building, transparency, etc.
Mostly developed countries	Who	All signatory parties

7. National efforts to combat climate change



- Policies and laws to minimize greenhouse gas emissions
- Development of clean energy
- Environmental certification marks: Encourage business and individuals to produce and consume environmentally friendly products
- Protection and support for those vulnerable to climate change

7. Individual action for climate change



• Conserve energy and resources

- Use public transportation and bicycles
- Use environmentally friendly products
- Plant trees

Action from everyone is needed!

• Climate change is a global issue. No one nation or person can stop it alone.

 Cooperation of all people from all nations is needed.



8. People fighting against climate change (1)

Greta Thunberg

Swedish-born environmental activist (born 2003)

In August of 2018, she missed school and held a one-person protest calling for measures to address climate change

In September of 2019, she sailed across the Atlantic Ocean on a solar yacht to attend the UN Climate Summit Action

"You have stolen my dreams and my childhood with your empty words."



8. People fighting against climate change (2)



Anote Tong

Politician and the 5th president of the island country Kiribati in the South Pacific.

Raised the international community's awareness of the threat faced by Pacific islands of being submerged underwater due to climate change

Awarded the Sunhak Peace Prize in 2015 for his efforts for the Pacific Ocean environment and active response to ensure the survival of his nation's citizens facing risk of rising sea levels

9. Organizations fighting against climate change





IPCC: Intergovernmental Panel on Climate Change, established in 1988 to assess comprehensive measures to mitigate climate change **Greenpeace:** International non-governmental environmental protection organization formed in 1971, that campaigns to stop global warming and climate change and protect the humanity



"The world is waking up and change is coming, whether you like it or not."

- Environmental activist Greta Thunberg