



YOUR LOGO

CLIMATE CHANGE

FACULTY OF ECONOMICS
THAMMASAT UNIVERSITY

Semester 1 2022

EE463 Globalization and International Development



CLIMATE CHANGE

Global warming

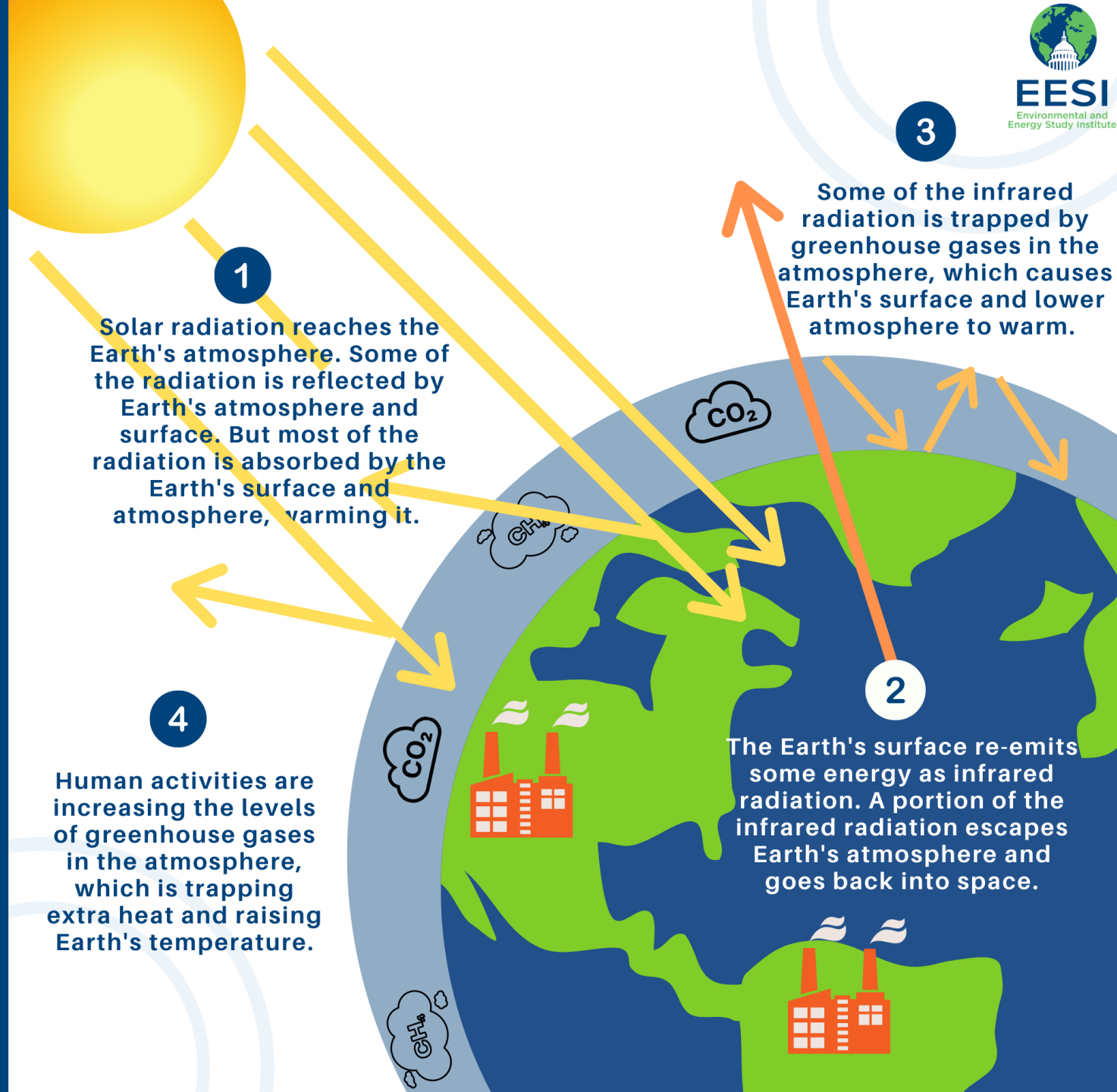
- Destruction of the world's remaining forests and gas emissions from industries and cars contribute to climate change caused by global warming through the greenhouse effect
- Mitigation and adaptation are two responses to address climate change



GUIDE TO THE GREENHOUSE EFFECT

The greenhouse effect is a natural process in which atmospheric gases trap the sun's heat and warm the Earth's surface and lower atmosphere. This makes Earth hospitable for life.

Human activities, such as burning fossil fuels for transportation and electricity generation, are increasing the concentration of greenhouse gases in the atmosphere. This enhances the greenhouse effect, trapping extra heat in the Earth's atmosphere and slowly warming the planet.



Climate change and challenges

- Depletion of renewable and non-renewable resources/fossil fuels
- Atmospheric concentration of greenhouse gases (CO₂, CO): raises global temperatures by trapping solar radiation in the earth's atmosphere



Effects of global warming and climate change

- Reduction in grain yields
- Rise in sea level
- Extinction of plant and animal species
- Displacement of people in coastal areas
- Extreme weather conditions causing excessive flooding
- Drought and natural disasters





CLIMATE CHANGE MITIGATION

What is climate change mitigation?

Actions or efforts taken to reduce or prevent the long-term risks of climate change on human life and property

Climate change mitigation strategies

- Reduce sources gas emissions or enhancing the sinks of greenhouse gases
- Adopt renewable energy sources like solar, wind and small hydro power
- Develop sustainable transport: bus rapid transit, electric vehicles, and biofuels
- Promote more sustainable uses of land



Sustainable transport

- Shift from fossil fuels to renewable energy sources
- Examples: battery powered vehicles; hybrid vehicles, bicycles





CLIMATE CHANGE ADAPTATION

What is climate change adaptation?

Adjustments in ecological, social or economic systems in response to actual or expected climatic effects

Adaptation strategies

- Change processes and practices to lessen the impacts of climate change
- Conduct inventories, develop warning systems
- Climate-proofing for infrastructure
- Expand and restore natural ecosystems



Adaptation: agriculture and natural resources

- Inventory and track ecological resources
- Implement early warning systems to anticipate natural disasters
- Restore and expand natural ecosystem barriers
- Select tree species and better forestry practices
- Develop drought-tolerant crops



Adaptation: climate-proofing infrastructure

- Adapt building codes to future climate conditions
- Build flood protection
- Construct infrastructure to serve the poor: shelters, flood barriers, protected roads, bridges



Adaptation: climate-proofing infrastructure



Adaptation: governance

- Use scarce water resources more efficiently
- Demand more government transparency
- Empower the poor



Conclusion

- Destruction of forests and greenhouse gas emissions creates a greenhouse effect known as global warming
- Global warming creates extreme weather conditions and patterns which adversely affect human habitation
- Climate change is inevitable but could be addressed through adaptation and mitigation



THANK **Y**OU!