



YOUR LOGO

CLIMATE CHANGE

FACULTY OF ECONOMICS, THAMMASAT UNIVERSITY

MODULE 15



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

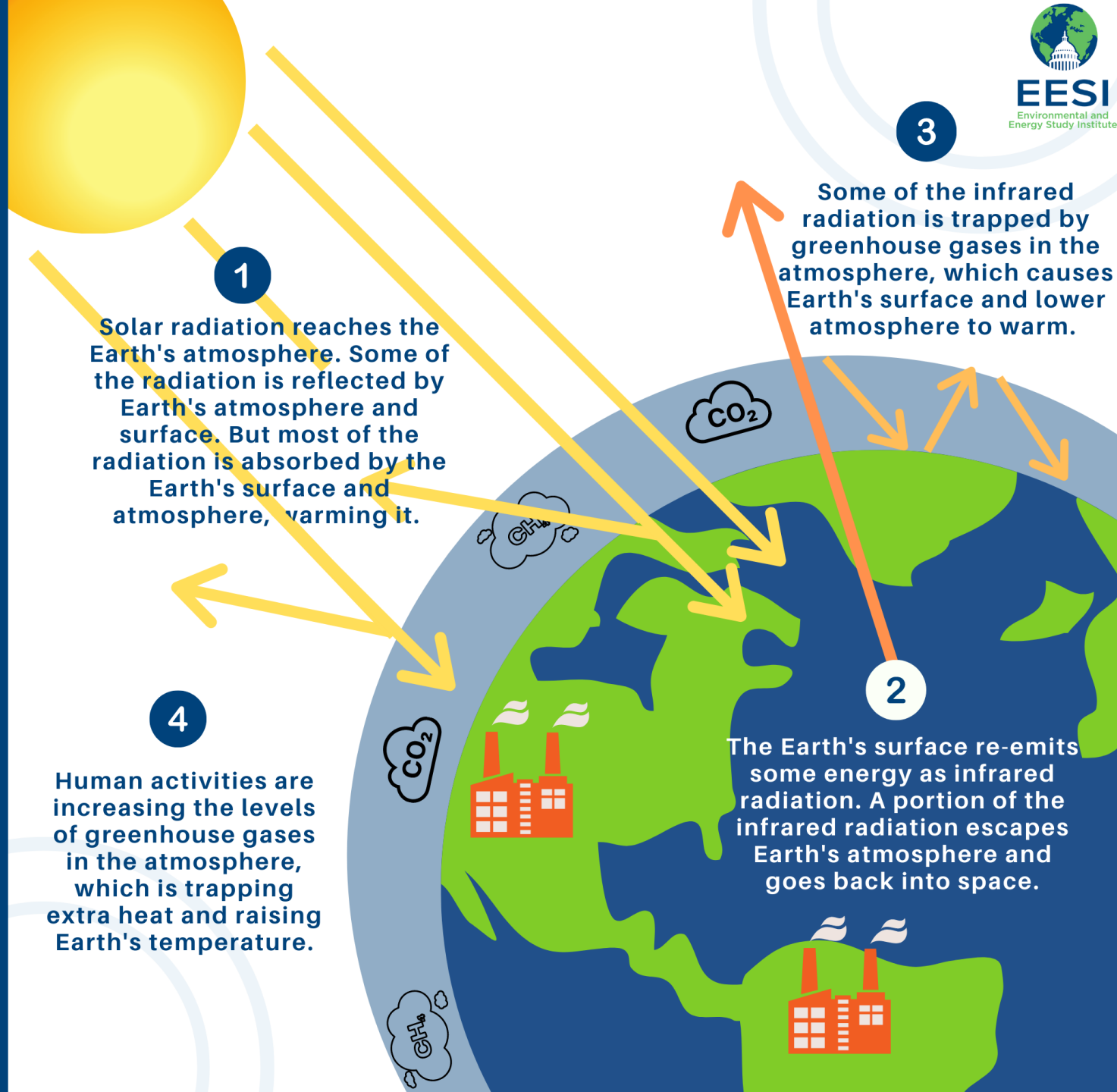


GUIDE TO THE GREENHOUSE EFFECT

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.

Graphic By: Sydney O'Shaughnessy



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?

- Mitigation: actions or efforts taken to reduce or prevent the long-term risks of climate change on human life and property
- This is done by reducing the sources gas emissions or enhancing the sinks of greenhouse gases



Climate change mitigation strategies

- Adopt renewable energy sources like solar, wind and small hydro power
- Promote more sustainable uses of land



Climate change mitigation strategies

- Develop sustainable transport: bus rapid transit, electric vehicles, and biofuels





CLIMATE CHANGE ADAPTATION

What is climate change adaptation?

- Adjustments in ecological, social or economic systems in response to actual or expected climatic effects
- This requires changes in processes and practices to lessen the impacts of climate change



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: governance

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



Conclusion

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

THANK **Y**OU!