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Greenhouse gases are atmospheric compounds such as water vapor, carbon dioxide, methane, nitrous oxide, and aerosols that prevent infrared radiation from escaping to the space, trapping the heat and increasing the temperature of the atmosphere and ocean (National Energy Information Center, 2004). Obviously, a hotter earth surface will melt the polar ice, leading to rising sea levels that erodes coastal areas. The ice that reflects sunlight back to space gets gradually depleted, making the water too hot for the inhabiting marine wildlife. In addition, as the temperature on earth continues to rise, the water cycle is further driven to evaporation, which allows water to be more available for storm formation but less accessible for some land masses. This increases the risk for flooding in the usual storm-afflicted areas, and the likelihood of drought in locations that get relatively less precipitation. The change in temperature also makes the storm tracks vary, making the weather less predictable. More importantly for humans, increasing temperature will lead to heat-related health incidents, air-quality respiratory illnesses, and low crop yields (Environment Protection Agency). The naturally-occurring gases contribute to climate change because the mechanisms that regulate their amounts in the atmosphere become less efficient. Although the temperature in earth started increasing since the 1800, the most rapid increase has been observed in the recent decades, most possibly due to human activity (Environmental Protection Agency). In the case of carbon dioxide, it is regulated by the carbon cycle. However, its increasing level in the atmosphere is partly attributed to industrialization that started 150 years ago, which emit the gas by burning fossil fuels to power the machineries. Currently, electricity generation and transportation

add into the carbon dioxide emission. Methane from landfills, coal mines, oil and gas operations, and agriculture also add to the greenhouse gases in the atmosphere. As well, the continuing deforestation depletes the plant population that absorbs carbon dioxide in the atmosphere (National Energy Information Center, 2004).

Unfortunately, we cannot prevent the earth from heating up. This is because many greenhouse gases take a long time to be degraded, and the cycling of the heat from the ocean to the atmosphere is relatively slow. What we can do is to slow it down. When the problem of increasing levels of greenhouse gas continues, the rate at which temperature of the Earth's surface rise also increases. This will make adaptation of vulnerable groups and fragile ecosystems more difficult (Environment Protection Agency).

What can we do then? According to the Natural Resources Defense Council, a strong effort from the Congress to mandate the polluters to pay for the clean-up of the greenhouse gases they produce is needed to prevent the excessive and unnecessary greenhouse gas emissions as well as to hasten the elimination of the gases. In addition, we should invest on clean energy industries that use wind and solar power. We can also promote energy efficiency programs by driving hybrid vehicles, reducing electricity use in our households by using energy-efficient heating, cooling, lighting appliances and others, equipping manufacturing plants with energy-saving machines, and advocating public transportation use, walking and biking.

By staying true to the Saint Leo core values of respect and responsible stewardship, we can make these things happen. We should keep in mind that the Earth is by God, so we have no right to do just whatever we want

with it. We are just stewards, and as His servants we must only use His resources the way He would. In addition, we have the responsibility for respecting the right of each and every one of us for the best way of living possible. This includes the responsibility of keeping the environment livable.

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