Essay on greenhouse gases and their emissions

Environment, Ecology

Climate changeis a by-product of green house gases because when gases like carbon dioxide, methane, nitrous oxide, etc. are in excess in the atmosphere, it will have an adverse effect on its structure. Its biggest side effect will be in the form of an increase in the temperature of the Earth. An increase in temperature will have an adverse effect on theenvironment. This will have a direct impact not only on biodiversity but also on humans.

Green house gases have a direct impact on ecological systems, whether terrestrial or aquatic. The main reason for this effect is climate change, temperature rise, and change in the sea water level. As the temperature increases, the nature of agriculture also changes. Greenhouse gases are also the cause of ozone loss.

Of course, today greenhouse effect remains the world’s major environmental problem because it is the major cause ofglobal warming. All the countries of the world and the environmental protection organization of the United Nations are not only concerned about it, but are also trying to control it or reduce it, although it has not been much success.

Long and Short Essay on Greenhouse Gases and their Emissions in English

Essay on green house gases and their emissions are provided for the students and scholars in various word limits. These essays will prove to be useful in the assignments stipulated by school teachers.

The language used here is very simple and in the reach of different level students and written in such a way that the theme can be understood by the

children and they can also use it in otheracademicpurposes like discussion and debate in the class or competitions.

Following green house gases and their emissions essay reflects about the green house gases, their effect and impact onhuman beingas well as on the biodiversity.

Students may be benefitted after a deep study of these essays and they may use to prepare projects and answering the socialsciencequestions during examinations and tests.

Greenhouse Gases and their Emissions Essay – 1 (200 Words)

Greenhouse gases are the gases in the atmosphere that absorb and re-emit the radiant energy within the thermal infra-red range. The primary greenhouse gases in the Earth’s atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone. In the absence of greenhouse gases, the average surface temperature of the Earth would plummet to minus 18°C instead of 15°C.

The atmospheric concentration of carbon di-oxide has been increased by 40% since 1750 A. D., from 280 ppm to 406 ppm. This growth is reported even after more than half of the carbon di-oxide has been absorbed by various natural sinks. Majority of human induced carbon dioxide emissions come from the combustion of fossil fuels, mainly coal, petroleum oil, and natural gas, with additional contributions coming fromdeforestation.

If the greenhouse gas emissions continue at their current rate, Earth’s surface temperature is expected to increase to unexpected values in early

2047 with potentially harmful effects on the ecological system and biodiversity including the livelihood of people around the world. It is feared that the Earth may cross the 2°C global warming threshold at the current emission rate, which the United Nations IPCC designated as the upper limit to avoid the dangers of global warming by 2036.

Greenhouse Gases and their Emissions Essay – 2 (300 Words)

Any gas that allows solar radiation from the Sun to come to Earth, but absorbs longitudinal radiation from the Earth and increases the Earth's temperature, is called greenhouse gas. Currently due to human reasons, increasing amount of greenhouse gases in the atmosphere has become the cause of global warming and climate change. If their quantity is not controlled, then it will prove fatal for the human being as well as the whole world.

The phenomenon of greenhouse gases present in the earth's atmosphere due to the absorption of heat emitted from the earth and the increase in atmospheric temperature is called the greenhouse effect. In fact due to the occurrence of greenhouse effect, the temperature on the earth is controlled and plants and animals get the required heat for their growth. Greenhouse gases have a direct impact on the Earth's atmosphere, as these gases act as blankets for the Earth.

Naturally occurring greenhouse gases in the atmosphere are CO_2, CH_4, N_2O, and fluorinated gases. While Chlorofluorocarbons, Hydro Fluorocarbons, and Fluorocarbon Sulphur hexachloride are the green house gases

synthesized by human activities. These green house gases not only responsible for global warming but also they deplete the ozone layer. There are so many vacant space in ozone layer from which U-V rays of the Sun reach on Earth directly causing a lot of damage to flora and fauna.

The main reasons for the increase in greenhouse gases are industrialization, urbanization, destruction of forests and the smoke from the burning fossil fuels in homes and industries. But in the 19th and 20th century, the amount of greenhouse gases emitted from human activities in the atmosphere increased resulting in the increase in the amount of greenhouse gases in the atmosphere. The result of this is present in the form of global warming and other climatic changes.

Greenhouse Gases and their Emissions Essay – 3 (400 Words)

Introduction

The greenhouse effect is a natural phenomenon and vital to life. Without the greenhouse effect the earth's average temperature would be -18 ^{0} C, instead of current average temperature of 15 ^{0} C. However, problem arise when the atmospheric concentration of greenhouse gases such as CO_2, CH_4, N_2O, O_3 halocarbons and water vapour increases.

Importance of Green House Effect

The greenhouse effect maintains a balanced temperature on the surface of the earth, due to which humans, plants and animals survive. It acts like a reflector which sends harmful rays coming from the sun back into space. The

ozone layer reflects the U-V rays of the sun, absorbs carbon dioxide and other gases with long wavelength radiation. Without this effect, it would have been impossible to avoid the harmful effects of radiation coming from the sun. The balance of these gases plays a very important role in running the cycle of environment normally.

Effects of Emission of Green House Gases

In the past decade, the environment has been continuously polluted due to man-made uncontrolled industrialization, unplanned urbanization, population growth and several other activities. At present, the amount of carbon dioxide in the atmosphere has increased by about 31 percent above normal due to the indiscriminate rush to meet out the requirements, due to which more heat is being absorbed into the lower atmosphere, which is a gradual increase in global warming by disrupting the cohesion of greenhouse gases.

How to Reduce the Emission

Reduction in the emission of greenhouse gases is difficult but not impossible. A large number of international and national level institutions are working on this. Some important facts by which its emission can be reduced, such as-

1. There should be an increase in energy efficiency in consumption and production.
2. There should be complete combustion of fuel in vehicles that is possible with proper maintenance.
3. Use of new sources of energy like solar energy, hydropower, nuclear power etc.

4. The removal of toxic substances from industries should be reduced.
5. Reducing the production of halocarbons such as fridge, air conditioning, cyclic chemicals.
6. Afforestation should be encouraged.
7. Sea algae should be grown so that carbon dioxide can be used through photosynthesis.

Conclusion

Finally it can be said that if human being do not make necessary arrangements to control the emission of green house gases, the Earth would face the problem of heating and it would be unbearable to live in such an adverse condition after some years or decades.

Greenhouse Gases and their Emissions Essay – 4 (500 Words)

Introduction

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If their quantity is not controlled, then it will prove fatal for the human beings as well as the whole world.

Green House Effect

The phenomenon of greenhouse gases present in the earth’s atmosphere due to the absorption of heat emitted from the earth and the increase in atmospheric temperature is called the greenhouse effect. In fact due to the occurrence of greenhouse effect, the temperature on the earth is controlled and plants and animals get the required heat for their growth.

Greenhouse Gases

Naturally occurring greenhouse gases in the atmosphere are:

- Carbon dioxide (CO_2), the most prominent greenhouse gas
- Methane (CH_4)
- Water vapour
- Nitrous oxide (N_2O)
- Fluorinated gases

The following are greenhouse gases produced or synthesized by humans:

- Chlorofluorocarbons (CFCs)
- Hydro Fluorocarbons (HFCs)
- Fluorocarbons’ (PFCs)
- Sulphur hexachloride (SF_6)

Impact of Greenhouse Gases

Greenhouse gases have a direct impact on the Earth’s atmosphere, as these gases act as blanket for the Earth. If these gases are not present and they do not absorb the heat, then the earth will be clouded in a cold planet and human life will not be able to live in its present form.

But in the 19th and 20th century, the amount of greenhouse gases emitted from human activities in the atmosphere increased as the amount of greenhouse gases in the atmosphere increased. The result of this is present in the form of global warming and other climatic changes. Global warming refers to an increase in the Earth’s long-term average temperature.

Causes of Green House Gases Emission

The following are the major reasons for the increase in greenhouse gases:

- Industrialization
- Urbanization
- Consumeristculture
- Smoke from burning of fossil fuels in vehicles
- Destruction of forests

Measures to Reduce Greenhouse Gases Emissions

It has become a necessity today to control the amount of greenhouse gases in the atmosphere by reducing the emission of greenhouse gases, so as to avoid the ill effects of global warming. Following are the measures to reduce the emission of greenhouse gases:

- Renewable And less polluting energy sources should be used more.
- Consumer goods emitting greenhouse gases like television, refrigerators, air-conditioners etc. should be used sparingly.
- Use fewer vehicles or use less polluting fuels like CNG in vehicles.
- Afforestation should be encouraged, as trees absorb greenhouse gases such as carbon dioxide.

- Energy should be used judiciously and continuously.

Conclusion

On September 15, 2009, the World Bank released the World Development Report on Development and Climate Change, in a report on September 15, 2009, asking developed countries to reduce Greene house gas emissions and provide related funds and technical assistance to developing countries. The report warns that the climate change question should not be ignored in the midst of the current financial crisis.

Long Essay on Greenhouse Gases and their Emissions – 5 (600 Words)

Introduction

The green house effect is a process in which certain gases enter the atmosphere and cause of rise in the temperature of the earth. Consequently, the average surface temperature of the earth increases, which is a matter of concern. In present time the term ‘ greenhouse effect’ is used for the worldwide problem which is the cause of temperature rise, which is causing climate change and which is a cause of crisis for the ecological system.

Green house effect refers to the changes in the temperature of the earth due to the presence of certain gases. The atmosphere acts as a shield over the earth and protects life on Earth from harmful rays of the sunlight. Various agents surrounding the Earth absorb the heat of the Sun along with dust particles, water vapour, water clusters, snow, land, etc. But when their

equilibrium is obstructed, the temperature starts to rise as a result of the greenhouse effect.

What are Green House Gases?

The presence of certain gases in the atmosphere is responsible for the greenhouse. They are the following:

1. Carbon dioxide: Carbon-dioxide oxide gas is an important gas in the atmosphere. Its fixed volume controls the temperature in the atmosphere. Mainly combustion of fossil fuels, thermal power plants, increase in number of automatic vehicles and increase in industries has more use of fossil fuel. At the same time it is increasing the green house effect.
2. Methane: Methane gas is composed of a combination of carbon and hydrogen. According to an estimate, 52 million tonnes of methane gas is being pumped into the air every year, thus increasing its volume. The reason for the increase in methane gas is both natural and human. Methane gas heats the atmosphere more than carbon dioxide.
3. Nitrous oxide: Another major gas in greenhouse gases is nitrous oxide, which is growing at about 0. 25 percent per annum in the atmosphere. The reasons for its growth are the oceans, warm soils, moist forests, nitrogenous fertilizer, change in land use, deforestation, burning of bio-fraction and industrial sources. It also damages the ozone layer.
4. Chlorofluorocarbons: It is emitted by the use of refrigerators, air conditioning fire-fighting equipment, cosmetic plastic foam, etc. It is

considered the most dangerous greenhouse gas. They cause the most damage to the ozone layer.

Effects of Increasing Level of Green House Gases

Green house gases have an impact on both the environment and ecology. As their quantity increases, this effect becomes dangerous. The major effects of increasing greenhouse gases are:

- Climate changes especially increase in temperature.
- Rise in sea level.
- Damage to ecosystems.
- Impact on agriculture.
- Effect on ozone layer.

Some Measures to Prevent the Effects of Greenhouse Gases

Following are the some measures to prevent the harmful effects of green house gases:

- Reduction in use of fossil fuels.
- Greater use of alternative energy sources in place of fossil fuels.
- Plantation and classification.
- Implementing international climate agreements.
- To implement the concept of sustainable development in industrial development.
- To control carbon-dioxide emission industries and other activities.
- Control of technological development by developed countries.

- To provide economic and technical support by developed countries to the developing countries to control green house gases.
- Ensuring global participation, etc.

Conclusion

There must be strict rules and regulations to protect the Earth from the coming danger of global warming in which the emission of green house gases is more responsible. The United States ranks highest among the most carbon-dioxide-emitting countries, while the countries of the European Union and China rank second and third respectively. Ten countries in the world emit more than 70 percent carbon dioxide, while the rest of the world suffers from the ill effects of green house effect.