

REVIEW ARTICLE

GLOBAL WARMING: A BURNING PROBLEM PRESENT SCENARIO

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Abstract:

The Global surface temperature has increased by about 0.5 degree Celsius since 1975. Many engineer researchers and renowned scientist are concerned about global warming and overall change of the planet. There is new and strong evidence that most of the warming observed over the last 50 years attributable human activities. Global warming is the result of the amplification of a natural process of occurring in the atmosphere called the greenhouse effect. This paper introduces global warming through the light and elaborate is causes and hazards to solve these hot burning issue.

Keyword: Climate, global warming, amplification, greenhouse effect.

Introduction:

Global warming is perhaps the most significant environmental problem facing the world today. Global warming is the rapid increase of average world temperature as a result of greenhouse effect. Some of the gases in the atmosphere like in a Greenhouse sunlight the surface of Earth but trap the heat as it radiates back into atmosphere. The greenhouse gases building up in the space the earth getting hotter. This process causing a rapid change in climate also known as climate change. Scientist agree that human activities search the burning of fossils fuels contributes to the problem. Global warming is definitely the single greatest environmental challenge that the planet earth is facing at present global warming is the steady and continuous rise in the level of earth temperature. Global warming is a very dangerous issue of our world today, which is responsible for new disease health problems and land loss and this issue deserve serious attention scientist and study has revealed that humans are responsible for most of the global warming over the last 50 years. Our action has permanently diversified the chemical arrangement of our atmosphere for the worst. It brings extreme climate change and results in floods draught other climatic disasters change in the Global temperature affect the pattern of monsoon winds and change the time and intensity of rain. Global warming is the long-term heating of earth's climate system observed since the pre-industrial. Between 1850 and 1900 due to human activities primary fossil fuel burning which increases heat trapping greenhouse level in Earth's atmosphere. The unpredictable

climate change affects the agriculture and productivity of nation planting more trees can be good step towards the problem of global warming.

Greenhouse Effect:

Global warming is also known as greenhouse effect. The greenhouse Earth is surrounded by a shield of atmospheric gases rather than a glass and plastic cover. It is important to understand and discuss the significance of global warming. The air that makes up our atmosphere consists primarily of nitrogen and oxygen molecule at 78% and 21% respectively. Number of trace gases make up the reminder of a composition. Many of these including carbon dioxide and methane are the all-greenhouse gases. The greenhouse effect was discovered by Joseph Fourier in 1824 and was first investigated quantitatively Stevant Arrhenius (1896). It is process by which absorption and emission of infrared radiation buy atmospheric gases war a planet atmospheric. And surface existence of the greenhouse effect as such as not disputed. Naturally occurring greenhouse gases have a min warming effects of about 33 degrees Celsius without which earth would be and in habitable. On earth major greenhouse gases are water vapour which causes about 36 to 70% of the greenhouse effect. Carbon dioxide which causes 9- 26% methane which causes for to 4- 9% and Ozone which causes 3-7 percent some other naturally occurring gases contribute very small fraction of Green House Effect, one of these nitrogen oxides is increasing in concentration moving to human activity suggest agriculture. The atmospheric concentration of CO₂ and CH₄ have increased by 31% and 149 % respectively above pre-industrial level since 1750. Level Sar considerable higher than at any time during the last 65000 years, the period for which reliable data extracted from my scores. Most of the rest is due to change land use in particular deforestation.

Causes of Global Warming:

As human-caused biodiversity loss and climate disruption gain ground, we need to keep our site clear and understand that the measures of a thread is not a matter of whether it is made on purpose, but of how much loss it may cause. Its n IC inhabit to go after those a person to be Evil because they intended to do har. It's harder but more effective to go after meaning for more effectively education and socialize those whose vastly larger number of our fellow humans who are not evil, but whose behaviour may in fact be for more destructive in the long run.

Carbon Dioxide from Power Plants:

Carbon dioxide emission stem from the burning of fossil fuels for the purpose of electricity generation. Call accounts for 93% of the mission for the electricity utility industry. C o amit around join times as much carbon per unit of energy when burn as does natural gas and 1.25 x as much or as oil. Natural gas gives off 50% of the carbon dioxide. The greenhouse gas release biocoal and 25% less carbon dioxide than oil for the same amount of energy produced. Call Contents about 80% more carbon per unit of energy then gas does and all contains about 40% more.

Carbon Dioxide Emitted from Cars:

The 80% of carbon dioxide emission comes from the burning of gasoline in internal combustion engines of cars and light trucks, minivans, utility vehicle, pickup trucks, jeeps. In other words, for each gallon a gas of vehicle consume, 19.6 pound of carbon dioxide are emitted into the air. Utility vehicles

were built for rough terrain, off-road driving in mountains and deserts. When they are used for city driving, they are so much over skill to the environment. In one has to have a large vehicle for their family, station wagons are an intelligent choice for city driving. Carbon dioxide from buildings: Building structure account for about 12% of carbon dioxide emission.

Methane:

While carbon dioxide is the principal green gas Greenhouse gas methane is the second most important. According to the IPCC methane is more than 20 times as effective as carbon dioxide as trapping heat in the atmosphere. US emissions inventory 2004 levels of atmospheric Methane have risen 145% in the last hundred years. Methane is derived from sources such as rice paddies, bovine flatulence, bacteria in box and fossil fuel production. Most of the world's rice and all of the rice in the United States is grown on flooded fields. When fields are flooded an aerobic condition develops and organic matter in the soil decomposes releasing CH₄ to the atmosphere primary through the rice plants.

Water Vapour in the Atmosphere:

Water vapour is the most prevalent Greenhouse gas on the planet, but its increasing presence is the result of warming caused by carbon dioxide Methane and other greenhouse gases. National climate data center (NCDC). At the earth heats of relative humidity is able to increase, allowing the planet's atmosphere to hold more water vapour causing even more warming does a positive feedback scenario because there is one or more humidity can be here in a sense the air is able to hold more water when it's a warmer leading to more water vapour in the atmosphere says the NCDC. There is much scientific uncertainty as to the degree these feedback loop causes increased warming in as much as the water vapour also causes increased cloud formation which intern reflect heat back out into space.

Nitrous Oxide:

Another greenhouse gas is nitrous oxide a colourless non-flammable gas with a sweet order commonly known as laughing gas and sometimes used as an anaesthetic. Nitrous oxide is naturally produced by Oceans and rainforest. Manmade sources of nitrous oxide include nylon and nitric acid production, the use of fertilizers in agriculture cars with catalytic converters and the burning of organic matter. Nitrous oxide is broken down in the atmosphere by chemical reaction that involve sunlight.

CFCs:

Found in fridges air conditioner aerosol also etc. are extremely effective greenhouse gases. Although there is lower concentration of CFCs in the atmosphere than CO₂ de trap more heat. A CFC molecule is 10,000 times more effective in trapping heat then a CO₂ molecule Methane is about 30 times more effective. Methane molecule survives for 10 years in the atmosphere and CFS for 110 years. It is this that causes people to want to ban them completely.

Carbon Dioxide:

About half the CO₂ released by burning fossil fuel is absorbed by the ocean. It is taken up by minute sea creatures of drag to the Ocean depth by the circulation of water. Recent research suggests that as the earth heats of the ocean will be less efficient in absorbing CO₂ living more in 99 % atmosphere and so adding further to global warming.

Deforestation:

After carbon emission caused by human deforestation is the second principal cause of atmospheric carbon dioxide. Deforestation is responsible for 20% off all carbon emission entering the atmosphere by the burning and cutting of about 34 million acres of trees each year. We are losing millions of acres of rainforest each year the equivalent in area to the size of Italy. The destroying of tropical forest alone is throwing hundreds of millions of tons of carbon dioxide into the atmosphere each year. We are also losing temperate forests. Great forests of the world account for an absorption rate of 2 billion tons of carbon annually. In the temperate forests of Siberia alone the earth is losing 10 million acres per year.

Remedies -Global Warming:

Some of the action which we all have to take will slightly decrease your present standards of living.

Since the largest portion of electricity in the US is produced by Burning coal. We should try to cut down on our demand for electricity coal combustion creates the largest amount of CO, per energy unit of any fossil fuel. Coal and oil together represent 80% of the US fuel supply used of generate electricity. When we reduce electric power use we save money breathe cleaner air and help to reduce the Global Warming problem. Every kilowatt hour of electricity saved keeps 1.5 to 2 pounds of CO, out of the atmosphere.

Americans waste more energy than any others nation. I believe it is time to make our lives, factories and homes more efficient look around at home and at your work place and you will find several ways in which you can decrease the use of electricity. For instance, plant several trees on the south side of your house where they can give shade during the hot summer months. Also install an energy efficient-thermostat with a day and night timer. Decrease the use of your car. If you can't afford to buy a new fuel-efficient car in the next few years consider selling or junking your gas demanding car and buying a smaller, efficient used car, besides saving money on gas, oil, tires part and repairs, you can help reduce greenhouse gases. Furthermore no matter what type of car you drive be sure to operate it efficiently, try to car pool to work or ride, the bus keeps the car tuned up, walk or ride your bike for short distance park and walk do not use "driver thru "services.

Thinking about use a bicycle do not require any time a fuel and it will keep you healthy. It is duty of Govt., and NGOs to make awareness about the bicycle. Thailand is popular for bicycle so that country called "Country as bicycle"

Tree plays a unique role in the global carbon cycle. They are the largest land based natural mechanism for removing CO₂, from the air CO₂, is also removed by the oceans and ocean organism. Tree is able to store a large amount of CO, in their structure. An acre of forest will absorb about 10 times the CO₂, amount absorbed by an acre of land or grassland one tree absorbs about 13 pounds of CO, per year and each on or of forest absorbs about 2.8 tons of CO, however when trees are burned a carbon locked in the structure is released into the air in the form of CO, Today the shrinking world forests are not able to absorb all the CO, created by human beings while burning fossil fuels. Everyday

over 5500 acres of rain forest are destroyed and over 50 million acres are destroyed every year. Global CO₂ levels rise approximately 0.4 percent each year to levels not experienced on this planet for millions of years. Planting more trees and reducing timber cuts world-wide will help restore the imbalance and perhaps buy time as ways are found to reduce world greenhouse gas emissions.

It is Important to show the warning as much as possible this mean's using less fossil fuel. this can be achieved best through energy conservation, including.

References:

1. Younos, T., & Tulou, K. E. (2005). Overview of desalination techniques. *Journal of Contemporary Water Research and Education*, 132, 3–10. <https://doi.org/10.1111/j.1936-704X.2005.tb00063.x>
2. Tung-Yu, V., Kun-Lin, Y., Yiacoumi, S., & Tsouris, C. (2002). Electrosorption of ions from aqueous solutions by nanostructured carbon aerogel. *Journal of Colloid and Interface Science*, 250(1), 18–27. <https://doi.org/10.1006/jcis.2002.8337>
3. Yang, C.-M., Choi, W.-H., Na, B.-K., Won, C. B., & Cho, W. I. (2005). Capacitive deionization of NaCl solution with carbon aerogel–silica gel composite electrodes. *Desalination*, 174(1), 125–133. <https://doi.org/10.1016/j.desal.2004.09.014>
4. Farmer, J. C., Fix, D. V., Mack, G. V., Pekala, R. W., & Poco, J. F. (1996). Capacitive deionization of NaCl and NaNO₃ solutions with carbon aerogel electrodes. *Journal of the Electrochemical Society*, 143(1), 159–169. <https://doi.org/10.1149/1.1836443>
5. Farmer, J. C., Fix, D. V., Mack, G. V., Pekala, R. W., & Poco, J. F. (1996). Capacitive deionization of NH₄ClO₄ solutions with carbon aerogel electrodes. *Journal of Applied Electrochemistry*, 26, 1007–1018. <https://doi.org/10.1007/BF00241328>
6. Farmer, J. C., Bahowick, S. M., Harrar, J. E., Fix, D. V., Martinelli, R. E., Vu, A. K., & Carroll, K. L. (1997). Electrosorption of chromium ions on carbon aerogel electrodes as a means of remediating groundwater. *Energy & Fuels*, 11(2), 337–347. <https://doi.org/10.1021/ef960174g>
7. Farmer, J. C. (1995). Method and apparatus for capacitive deionization, electrochemical purification, and regeneration of electrodes. *U.S. Patent No. 5,425,858*. United States Patent and Trademark Office. <https://patents.google.com/patent/US5425858A>
8. Farmer, J. C. (1999). Method and apparatus for capacitive deionization, electrochemical purification, and regeneration of electrodes. *U.S. Patent No. 5,954,937*. United States Patent and Trademark Office. <https://patents.google.com/patent/US5954937A>