

Global Warming – Causes, Dangers, and the Solutions

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The article discusses the dangers from the global warming and is based on the chapter, 'Reaping the benefits' from my book, 'Nature of Reality'. In this article, I have not discussed the scientific aspect in much detail and have kept the discussion very simple.

Global warming is the biggest problem that humanity faces today; unfortunately, we have failed to identify the real causes and hence the solutions suggested to tackle the problem are impractical.

If you are not acquainted with the basic issues concerning global warming then first thing I must clear here is that there is nothing global about global warming. The universe is cooling down constantly and the temperature of the universe is -271-27 degree Celsius. The minus sign is not placed before the figure by any mistake; the temperature of the universe is quite close to absolute zero. Of course, this is the temperature only at the places where no perceptible matter is present. This is also the temperature just outside the atmosphere of the earth.

Even the temperature of the upper part of the atmosphere is also reducing. The temperature increases disproportionately as we get closer to the surface of the earth.

Modern science attributes the problem to uncontrolled emission of gases. The Intergovernmental Panel on Climate Change identifies release of antropogenic greenhouse gases as the prime culprit for global warming since the middle of twentieth century.

Obviously, the solutions are directed towards controlling the release of these harmful gases. Almost all the countries have signed the Kyoto protocol but this is about all our governments. However, at least in this case, we the scientists are to be blamed and not the politicians because we have failed to identify the real cause and hence solutions being suggested by us are not practical.

There is no doubt that the emission of these gases does cause global warming but are not the major contributors.

I am not undermining the role of the greenhouses even for a minute; in fact, one of the most horrifying experiences for me was to see the night sky just about 100 kilometers from the city limits. The sheer number of stars and their brightness was shocking because it made me realize how polluted our cities have become. It was such a pleasant experience that lasted only till I realized that this should be routine view I should be

getting from my roof. In my city (Indore), which must pride itself in being one of the most polluted cities, I cannot see even 10% of the stars I saw on that glorious night. If you do not trust me then go to a less polluted area and watch the night sky and then come back and see the skyline from the roof of your house. You will realize what we have done to our atmosphere. I am sure this is the situation everywhere.

There is no point in discussing the technical details of the mechanism that causes global warming due to release of the greenhouse gases because there is not much you and me can do about it. Instead, it will be better to concentrate on what we can do to tackle this problem but before that let us see what happens if we do not reverse the trend of increase in the temperature close to the surface of the earth.

We must understand that the problem has assumed such dangerous proportions that now it is not the question of survival of the posterity, survival of our own generation is at stake.

The first thing scientists point out is that due to global warming, glaciers will start melting and there will be unexpected and undesirable changes in the seasonal cycle.

Changes in the seasonal cycle will ensure frequent cycles of draught and flooding. The food production is bound to reduce considerably. Drinking water is as such becoming a rarity but with each passing minute, we will be forced to drink contaminated water.

Increase in the radiation is going to cause serious problems for us and cancer would emerge in its worst forms esp. in colder countries in North America and Europe. We will still not have as high and as low temperatures as moon has but the range of temperature will still be too uncomfortable and too big for human body to adapt to.

The worst affect of this phenomenon will be noticed where maximum matter is, or in other words, the worst affects will be felt closer to the surface of the earth and that too in the cities.

We shall not forget that the effects are compounded with each passing minute. The clock is ticking a bit too rapidly for our comfort but we cannot even complain because we are responsible for being in the situation that we find ourselves in.

Nature or God, even if god exists, is not as compassionate as religious leaders tend to make us believe. Nature has a beautiful mechanism in place to maintain the balance in the universe and it simply cannot afford to be compassionate when it comes to maintaining the balance in the universe. If God exists then even he must follow all the rules that he has made for smooth operations of the universe.

Extremely high radiation at the moon is caused due to the absence of the atmosphere but we will perish long before atmosphere of the earth perishes. Scientists wonder why moon has a lot more helium than on earth. The reason is simple; a lot more radiation reaches the moon and conditions are just right at the moon for generation of helium. Fortunately,

conditions on earth are just right for generation of oxygen but we are here to ensure that we have moon-like conditions where radiations levels are too high and hence helium content is too high.

Let us now analyze the real cause of the global warming and see how we can contribute in reversing the trend.

We believe that we receive the light and heat from the sun in the form that we perceive light and heat. We fail to understand that the energy emitted by the sun or for that matter any source of energy does not have any discernible properties. Energy and matter do have properties but it does not have any discernible properties. Energy and matter must combine with each other to acquire perceptibility; in other words, energy and matter remain unmanifested in the absence of each other.

This energy remains unmanifested in the absence of the perceptible matter and that is why we do not have either the heat or light in vacuum. Not only sound but even the heat and light cannot be produced in the vacuum. Of course, perfect vacuum or absolute emptiness does not exist in the universe but for the sake of the convenience, let us assume that vacuum means absence of perceptible matter (Physics does not have a universally accepted definition of Vacuum). Therefore, we can assume that there is vacuum outside the atmosphere of the earth. In the absence of the perceptible matter outside the atmosphere of the earth, we neither have light nor heat and therefore as I have mentioned the temperature of the space outside the atmosphere of the earth is -273.15 degrees Celsius.

Light and heat are produced by the matter that absorbs this imperceptible energy released by the sun. The best analogy I can think of to explain the relationship between the energy of the sun and light and heat is the relationship between electricity and light. Electricity in itself cannot produce light and must combine with the bulb to produce light. Electricity and bulb both are required to produce light. The quantum and the nature of light produced does not depend on the properties of either the electricity or the bulb alone but is a combination of the properties of both – electricity as well as the bulb. Similarly, the quantum and nature of light and heat generated by the matter depends as much on the quantum and properties of the energy being received by us from the sun but also on the matter that absorbs this energy and produces heat and light.

When an object absorbs energy, it either stores it or converts it in the form of matter like we convert energy into the matter when we absorb sunlight or the matter simply allows the energy to pass through it like glass allows most of the energy to pass through it or the matter radiates the energy in the form of heat and light.

All perceptible matter produce a combination of these three effects i.e. all perceptible matter absorbs and stores part of the energy, allows a part of energy to pass through, and radiate a part of the energy in the form of heat and light. Different types of matter produce different combinations of these three effects.

At present, we are only concentrating on the reduction in the release of the gases to control the situation. Since, there is nothing impossible in this universe therefore I will only say that it is next to impossible to even control, let alone reverse, the effects of global warming by controlling the emission of gases.

We must use an important property of the energy to reverse the trend. We need to concentrate on the matter that converts and stores energy in the form of matter.

We have created jungles of cement that produce more radiation and are very low in converting energy into matter.

The jungle of cement we have created by removing jungle of trees harms us in two ways; it means a lot more energy reaches the surface of the earth and it also means that with no matter to convert energy into matter, a lot more radiation is produced near the surface of the earth. Thinning of the atmosphere is a natural consequence of the increased levels of radiation that means a lot more energy reaches surface of earth and it also means that a lot more energy in the range that we are not designed to absorb reaches the surface of the earth. Thinning of atmosphere is also bound to cause sudden climatic changes with huge difference in the day temperature and the night temperature as well variations in the seasonal temperatures as well.

We are exposing too many objects that generate high radiation to the ever-increasing energy from the sun.

We need to use the method that allows energy to convert into matter. All living beings and the trees can convert energy into matter whereas objects like stones or metals do not convert solar energy into matter but release it in the form of radiation.

Trees are quite efficient in converting energy into matter and hence we can control the problem of global warming very quickly and at very low cost simply by planting trees.

Trees help us in three ways to control this problem. First, trees convert energy into matter and hence that much less energy is available to cause radiation; second, trees stop the energy of the sun from reaching the surface of the earth where most of the radiation is generated; and third, trees cause thickening of the atmosphere and hence a lot less energy reaches the surface of the earth as atmosphere absorbs lots of energy of the sun.

Planting of the trees is the only way we can reverse the effects of global warming within the time that we are left with to act in this matter.

We also ought to make more use of clay and wood in our structures and we need to use less electricity. Nuclear power can cause havoc with the environment as the waste produced is highly radioactive and is bound to surface like a demon if we do not stop nuclear power generation. Fortunately, all developed countries have more or less stopped nuclear power generation for this very simple reason but are now looking for the third world countries like India to dump their technologies and obsolete plants. Nuclear power

is not only very expensive, it is too dangerous. If we do not learn our lessons from the Chernobyl then nothing can stop us from causing self-destruction.

The fact that almost every developed nation that has stopped producing nuclear power is keen to sign a nuclear deal with India shows that it is not just about helping India. In the recent past, nuclear deal is the only issue on which developed countries are so eager to help India.

In a country where a large part of the population does not even earn Rs. 8 (\$0.16) per day to have at least one time meal, we are going to sell one unit of electricity for Rs. 8/-. God bless Indian politicians.

We must get together to tackle the problem of global warming by managing the surroundings around our own houses. We need to find place to plant trees in the jungle of cement that we have created but we can always start with our own house. Terrace gardens are necessary if we have to survive but we also need to devise some other methods to cover as much outer surface of buildings as is possible.

Management of jungles has to be our top priority. Recycling of the trees in the jungles by cutting dry trees is extremely important because dry trees cause fire that not only destroy green trees also but also cause release of harmful gases. However, management of jungles is something that governments have to take care while each one of us can take care of surroundings around us.

We also ought to reduce the consumption of electricity esp. as solar energy and wind energy is still too expensive to be used at mass scale.

Planting of trees, use of more clay and wood in our structures, and reduction in the electricity consumption has to be at the top of our agenda.

This is the only way we can deal with the problem of global warming that poses the biggest threat to life on earth. If we do not act now then we will not be there to do anything. Unlike the present solutions being suggested to tackle the problem, these are the ways in which each one of us can make a difference and we must.

This problem is bigger than any other problem that human beings have faced thus far and it requires us to unite and work as one unit. The problem is gigantic and the solution to the problem is quite simple but we need to act now, as any delay will prove to be disastrous. We can and we must unite to save the life on earth.

If there has to be one-line mantra that physics has to give to human kind then it has to be simple three words, 'Keep it cool'.

It is applicable as much to our mind and body as it is to the objects on and around the surface of the earth.

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