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IMPACT OF GLOBAL WARMING ON ENVIRONMENT

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ABSTRACT

Several million years ago earth's CO_2 level was greater than 1000 ppm and the average global atmospheric temperature during the evaluation of mammals and dinosaurs was about22^oC whereas today's global average temperature is 15^oC. Several parts of Arctic and Antarctica were ice free and flourished with ancient trees and animals. Sea level about 55 million years ago was 100m higher than now. Norwegian Island Svalbard has fossil evidences of massive pantodont creatures, sequoia type trees and beasts like crocodile were living in now frozen Svalbard. If current increase of CO_2 (mainly anthropogenic) continues in the same level it will reach 1000 ppm by the year 2100. However, global warming is not a new issue, it happens since prehistoric times. Ancient warming was natural and it was due to volcanic activities and thawing of frozen methane alone. Recent observations regarding global warming have substantiated the theory that it is indeed a human enhanced greenhouse effect that is causing the planet to heat up. The paper introduces global warming, elaborates its causes and hazards and presents some solutions to solve this hot issue. Above all, alternative energy sources (solar, wind, hydro, geothermal, bio mass) need to be seriously pursued. Finding and using renewable sources of energy is one of the methods to combat the ever increasing global warming effectively.

Keyword: *Global warming, Environment, CO_2*

Introduction

Global warming begins when sunlight reaches the Earth. The clouds, atmospheric particles, reflective ground surfaces and surface of oceans then sends back about 30 % of sunlight back into the space, whilst the remaining is absorbed by oceans, air and land. This consequently heats up the surface of the planet and atmosphere, making life feasible. As the Earth warms up, this solar energy is radiated by thermal radiation and infrared rays, propagating directly out to space thereby cooling the Earth. However, some of the outgoing radiation is re-absorbed by carbon dioxide, water vapours, ozone, methane and other gases in the atmosphere and is radiated back to the surface of Earth. These gases are commonly known as greenhouse gases due to their heat-trapping capacity. It must be noted that this re-absorption process is actually good as the Earth's average surface temperature would be very cold if there was no existence of greenhouse gases. The dilemma began when the concentration of greenhouse gases in the atmosphere was artificially increased by humankind at an alarming rate since the past two centuries. As of 2004, over 8 billion tons of carbon dioxide was pumped thermal radiation is further hindered by increased levels of greenhouse gases resulting in a phenomenon known as human enhanced global warming effect. Recent observations regarding global warming have substantiated the theory that it is indeed a human enhanced greenhouse effect that is causing the planet to heat up. The planet has experienced the largest increase in surface temperature over the last 100 years. Between 1906 and 2006, the Earth's average surface temperature augmented between 0.6 to 0.9 degrees Celsius, however the last 50 years saw the rate of temperature increase nearly doubling. Sea levels have shown a rise of about 0.17 meters during the 20th century. The extent of Arctic sea ice has steadily reduced by 2.7 % per decade since 1978 out per year. Millions of pounds of methane gas are generated in landfills

and agricultural decomposition of biomass and animal manure. Nitrous oxide is released into the atmosphere by various nitrogen-based fertilizers including urea and diammonium phosphate and other soil management utilizations. Once released, these greenhouse gases stay in the atmosphere for decades or even longer. According to Intergovernmental Panel on Climate Change (IPCC), carbon dioxide and methane levels have increased by 35 % and 148 % since the industrial revolution of 1750.

Greenhouse effect

Weather and climate of the earth is driven by the sun's energy. Solar radiation heats the earth surface, and in turn earth radiates the energy back into space. Some gasses of the atmosphere traps some of the outgoing energy and retains heat. This causes to an increase in the global temperature and also causes subsequent changes in the weather pattern. Gases which trap the heat energy are known as greenhouse gases; all greenhouse gases are positive radiative forcing agents and are capable of disturbing the energy balance in the atmosphere. Global warming potential (GWP) of a gas is a measure of cumulative radiative forcing caused by unit volume of gas over a given period of time, GWP values for gases are measured with reference to the GWP of the CO_2. If GWP of CO_2 over a period of 100 years is 1, then GWP of methane is 34 (see table 1).

Table 1 GWP values and lifetimes

Greenhouse Gas	Lifetime (years)	GWP time Horizon 100 years
Methane	12.4	34
HFC-134a (hydro fluorocarbon)	13.4	1550
CFC-11 (chlorofluorocarbon)	45.0	5350
Nitrous oxide (N2O)	121.0	298
Carbon tetra fluoride (CF4)	50000	7350

(Source: Myhreet al., 2013)

Since 1880 Earth's average temperature has warmed by 0.8ºC (1.4o F). This has reached a peak in 2014 even though it is an El-nino neutral year. The warming of earth has been increasing more steeply during the last three decades (see figure 1). ('NASA,' 2015)

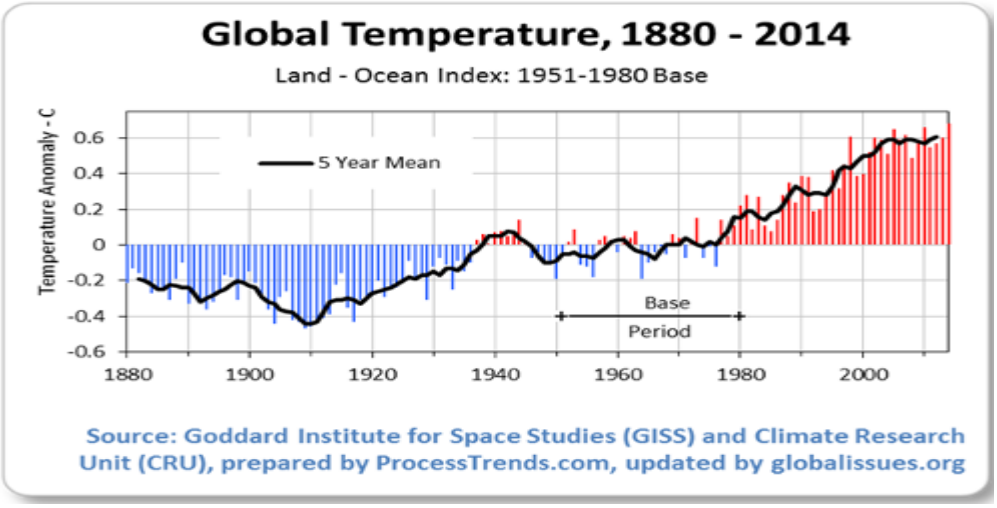

Figure1:Global temperature in the period between 1880 and 2014. ('Anup,'2015)

According to John Cook, writing the popular Skeptical Science blog (2010), 10 indicators of a human finger print on global warming were observed. They are shrinking thermosphere, rising tropopause, less oxygen in the air, release of 30 billion tons of CO_2 annually, nights warming faster than days, more fossil fuel carbon in coral, more heat return to earth, more fossil fuel carbon in the air, cooling of stratosphere and less heat escape to the space (see figure 2).

Increasing the Concentrations of Greenhouse Gases will warm the Planet and Change

the Climate From laboratory experiments, from study of the atmospheres of Mars and Venus, from observations and study of energy fluxes in the atmosphere and from space, and from reconstructions of past climatic changes and their likely causes, it is very clear that the atmospheric concentrations and distributions of radioactively active gases play a very important role in determining the surface temperature of the Earth and other planets. Figure 1 provides a schematic diagram of the energy fluxes that determine the Earth's temperature (and climate).

Of the solar radiation reaching the top of the atmosphere, about 30% is reflected back to space by the atmosphere (primarily by clouds) and the surface; about 20% is absorbed in the atmosphere (primarily by water vapor, clouds, and aerosols), and about 50% is absorbed at the surface. For a system to come to a steady state temperature, the energy absorbed must be balanced by radiation that is emitted away as infrared (or heat) radiation. Were the Earth's atmosphere transparent and its surface a simple radiator of energy to space, the Earth's average surface temperature would equilibrate at close to 0o F (-18ºC), given the current reflectivity of the Earth-atmosphere system. Such a temperature would be much too cold to sustain life as we know it.

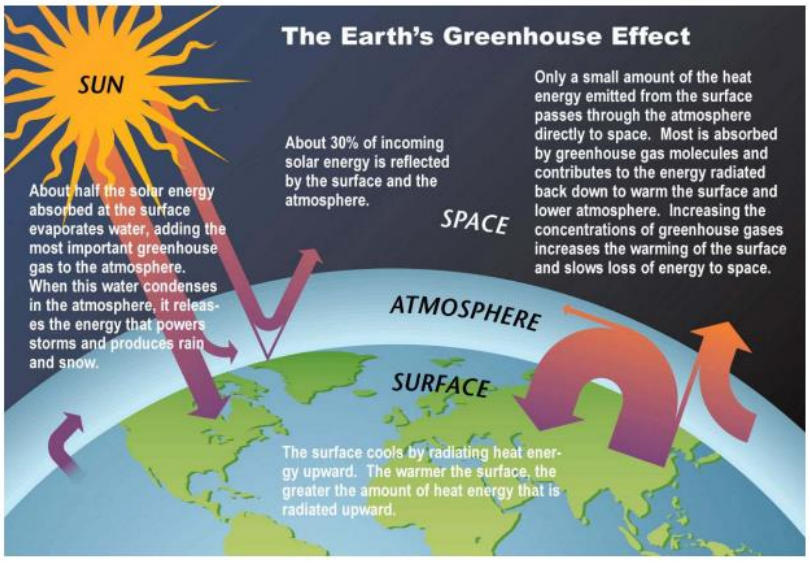

Figure 2.Schematic diagram of the Earth's greenhouse effect, with arrows proportional in size to the fluxes of energy by the particular process (NAST, 2000). Of incoming solar radiation, about 30% is reflected back into space by clouds and the surface, about 20% is absorbed in the atmosphere, and about 50% is absorbed at the surface. Most of the infrared (heat) radiation emitted by the surface is absorbed in the atmosphere and the atmosphere in turn then emits about 90% of this amount back to the surface, adding to its heat gain from the Sun. The extra energy at the surface is used to evaporate water or heat the near surface atmosphere. In the atmosphere, the extra energy it receives from the Sun, from absorbed infrared radiation, from latent heating released during precipitation, and from sensible heating, is emitted to space to balance the net solar radiation absorbed by the surface and atmosphere.

However, the Earth's atmosphere is not transparent to infrared radiation, being able to recycle some of it in a way that creates a warming influence. This warming effect occurs because much of the infrared radiation emitted by the surface and by the greenhouse gases and low clouds in the atmosphere is absorbed by various radiatively active gases in the atmosphere. For example, less than 10% of the infrared radiation emitted by the surface gets through directly to space without being absorbed. A significant fraction of the absorbed energy is radiated back to the surface by the atmosphere's greenhouse gases and clouds, providing additional energy to warm the surface. This radiation in turn causes the surface to warm, which raises its temperature and causes more radiation to be emitted upward, where much of it is again absorbed, providing more energy to be radiated back to the surface. This emission-absorption-reemission process is popularly called the greenhouse effect, even though the processes involved are different than keep a greenhouse warm and humid. The effect of this natural greenhouse effect is to raise the average surface temperature of the Earth from about 0o F (-18ºC) to almost 60o F (15ºC).

An additional warming influence results because the atmospheric temperature decreases with altitude up to the tropopause (about 8-10 miles up) before temperatures start to rise again in the stratosphere, which is warmed by the solar absorption by ozone (O_3) molecules. As a result of this temperature structure, when the concentrations of greenhouse gases are increased and the atmosphere becomes more opaque to infrared radiation, the absorption and reemission of infrared radiation to the surface comes from lower and warmer layers in the atmosphere. Because the emission of infrared energy is proportional to the fourth power of temperature, this has the effect of increasing the downward emitted radiation, tending to enhance the natural greenhouse effect. Similarly, emission outward to space occurs from higher and colder layers when the

concentrations of greenhouse gases are increased. As a result, the surface-atmosphere system has to warm even more to achieve a planetary energy balance with the incoming solar radiation.

The most important radiatively active (or greenhouse) gas is water vapor (to be radiatively active, molecules need to have at least 3 atoms so that various rotational and vibrational bands can be activated by the radiation). Not only does water vapor absorb infrared radiation emitted by the Earth's surface, but it also absorbs infrared radiation from the Sun. In addition, under appropriate conditions, water vapor can condense and form clouds that absorb and emit infrared radiation as well as absorbing and scattering solar radiation. In addition to water vapor, other greenhouse gases in the atmosphere that are present in significant concentrations include CO_2, CH_4, N_2O, and many chlorofluorocarbons, the concentrations of all of which are being directly affected by human activities, and O_3, the troposphere and stratospheric concentrations of which are being indirectly affected through chemical reactions caused by the emissions of other gases. Because of their connection to human activities, these greenhouse gases are usually referred to as the anthropogenic greenhouse gases (strictly speaking, their concentrations are being anthropogenically modified.

Observations from space-based instruments clearly indicate that the rising concentrations of the anthropogenic greenhouse gases are tending to enhance the natural greenhouse effect. Even though the greenhouse effect of the anthropogenic greenhouse gases is exceeded by the positive greenhouse effect of atmospheric water vapor, their effect is not overwhelmed by it. Instead, the warming caused by the increases in concentrations of CO_2, CH_4 and other anthropogenic greenhouse gases is significantly amplified by a positive water-vapor feedback mechanism. This positive feedback occurs because more water vapor can be present in a warmer atmosphere, so that warming leads to an increase in atmospheric water vapor and a further warming. At the same time, however, changes in atmospheric water vapor and in atmospheric circulation can change the extent and distribution of clouds, and this can in turn affect the extent of the absorption and scattering of solar radiation and the absorption and reemission of infrared radiation through relatively complex and uncertain cloud feedback mechanisms. Overall, there is no scientific disagreement that increases in the atmospheric concentrations of the anthropogenic greenhouse gases will tend to raise the Earth's average surface temperature—the key questions are by how much and how rapidly.

Increases in the Concentrations of Greenhouse Gases Since the Start of the Industrial Revolution are Already Changing the Climate, Causing Global Warming

The evidence is clear-cut that the concentrations of greenhouse gases have risen significantly since the start of the Industrial Revolution and that increasing the concentrations of greenhouse gases will induce a warming influence on the Earth's climate. A key test of scientific understanding is to determine if the time history and magnitude of climatic changes that are occurring match those expected to be occurring, based on theoretical and numerical analyses, as a result of past emissions and the resulting changes in atmospheric composition. Complications in this analysis arise because other influences on the Earth's radiation balance (referred to as radiativeforcings) also can be affecting the climate. These radiativeforcings include natural influences, such as changes in the output of solar radiation or in stratospheric particle loadings caused by volcanic eruptions, and human-induced changes, such as depletion of stratospheric ozone, enhancement of tropospheric ozone, changes in land cover, and changes in the amount of aerosols in the atmosphere. To have the best chance of identifying the human influence, it is most useful to look at the longest records of the climatic state. Instrumental records of average temperature for large areas of the Earth go back to the mid-19th century. These records indicate a warming of over 1o F (about 0.6ºC) over this period. Extensive proxy records (i.e.,

records derived from tree rings, ice cores, coral growth, etc.) for the Northern Hemisphere going back about 1000 years also indicate very significant warming during the 20th century compared to the natural variations apparent over earlier centuries. As shown in Figure 1c, a sharp rise in the temperature began during the late 19th century and continued through the 20th century. This warming appears to be much more persistent than the earlier natural fluctuations that were likely caused by the inherent natural variability of the ocean-atmosphere system (i.e., internal variability) and the natural variations in solar radiation and the occasional eruption of volcanoes (i.e., external variability). That warming is occurring is also confirmed by rising temperatures measured in boreholes (i.e., dry wells), retreating mountain glaciers and sea ice, increasing concentrations of atmospheric water vapor, rising sea level due to melting of mountain glaciers and thermal expansion in response to recent warming (augmenting the natural rise due to the long-term melting of parts of Antarctica), and related changes in other variables.

The key question is whether these changes might be a natural fluctuation or whether human activity is playing a significant role. Among the reasons that the effect is being attributed largely to human activities is the coincidence in timing with the changes in greenhouse gas concentrations, the very large and unusual magnitude of the changes compared to past natural fluctuations, the warming of the lower atmosphere and cooling of the upper atmosphere (a sign of a change in greenhouse gas concentrations rather than in solar radiation), and the global pattern of warming. Some uncertainty is introduced because some of the warming occurred before the sharpest rise in greenhouse gas concentrations during the second half of the 20th century. Some analyses indicate that as much as 20-40% of the overall warming may be due to a coincidental increase in solar radiation, although other factors, such as changes in land cover or in soot emissions, may also have had an influence. In addition, some uncertainty has been introduced because the rise in tropospheric temperatures over the past two decades may have been a bit slower than the rise in surface temperature. Whether this difference is real or arises from, for example, calibration issues with the satellite instrumentation, natural variations in Earth-surface temperatures, the confounding influences of ozone depletion, volcanic eruptions, and atmosphere-ocean interactions, or other factors is not yet clear.

Taking all of the scientific results into consideration, the Intergovernmental Panel on Climate Change (IPCC, 1996a) concluded in its Second Assessment Report in 1995 that “The balance of evidence suggests a discernible human influence on the global climate.” This conclusion, in essence, is equivalent to the criterion for a civil rather than a criminal conviction. In its Third Assessment Report (IPCC, 2001), the IPCC indicated even more clearly that the magnitude and timing of the warming during the 20th century, especially during the last 50 years, quite closely matches what would be expected from the combined influences of human and known natural influences.

Causes of Global warming

The major cause of global warming is the greenhouse gases. They include carbon dioxide, methane, nitrous oxides and in some cases chlorine and bromine containing compounds. The build-up of these gases in the atmosphere changes the radiative equilibrium in the atmosphere. Their overall effect is to warm the Earth’s surface and the lower atmosphere because greenhouse gases absorb some of the outgoing radiation of Earth and re-radiate it back towards the surface. The net warming from 1850 to the end of the 20th century was equivalent to nearly 2.5 W/m^2 with carbon dioxide contribution about 60 % to this figure, methane about 25 per cent, with nitrous oxides and halocarbons providing the remainder. In 1985, Joe Farman, of the British Antarctic Survey, published an article showing the decrease in ozone levels over Antarctica during the early 1980s. The response was striking: large scale international scientific programmes were mounted to prove

that CFCs (used as aerosol propellants in industrial cleaning fluids and in refrigeration tools) were the cause of the problem. Even more important was abrupt international action to curb the emissions of CFCs. The second major cause of global warming is the depletion of ozone layer. This happens mainly due to the presence of chlorine-containing source gases. When ultraviolet light is present, these gases dissociate releasing chlorine atoms which then catalyses ozone destruction. Aerosols present in the atmosphere are also causing global warming by changing the climate in two different ways. Firstly, they scatter and absorb solar and infrared radiation and secondly, they may alter the microphysical and chemical properties of clouds and perhaps affect their lifetime and extent. The scattering of solar radiation acts to cool the planet, while absorption of solar radiation by aerosols warms the air directly instead of permitting sunlight to be absorbed by the surface of the Earth. The human contribution to the amount of aerosols in the atmosphere is of various forms. For instance, dust is a by-product of agriculture. Biomass burning generates a mixture of organic droplets and soot particles. Many industrial processes produce a wide diversity of aerosols depending on what is being burned or generated in the manufacturing process. Moreover, exhaust emissions from various sorts of transport produce a rich mixture of pollutants that are either aerosols from the outset or are transformed by chemical reactions in the atmosphere to form aerosols.

Global Warming: The Effects

Predicting the consequences of global warming is one of the most difficult tasks faced by the climate researchers. This is due to the fact that natural processes that cause rain, snowfall, hailstorms, rise in sea levels is reliant on many diverse factors. Moreover, it is very hard to predict the size of emissions of greenhouse gases in the future years as this is determined majorly through technological advancements and political decisions. Global warming produces many negative effects some of which are described here. Firstly, extra water vapour which is present in the atmosphere falls again as rain which leads to floods in various regions of the world. When the weather turns warmer, evaporation process from both land and sea rises. This leads to drought in the regions where increased evaporation process is not compensated by increased precipitation. In some areas of the world, this will result in crop failure and famine particularly in areas where the temperatures are already high. The extra water vapour content in the atmosphere will fall again as extra rain hence causing flood. Towns and villages which are dependent on the melting water from snowy mountains may suffer drought and scarcity of water supply. It is because the glaciers all over the world are shrinking at a very rapid rate and melting of ice appears to be faster than previously projected. According to Intergovernmental Panel on Climate Change (IPCC), about one-sixth of the total population of the world lives in the regions which shall be affected by a decrease in melting water. The warmer climate will likely cause more heat waves, more violent rainfall and also amplification in the severity of hailstorms and thunderstorms. Rising of sea levels is the most deadly affect of global warming; the rise in temperature is causing the ice and glaciers to melt rapidly. This will lead to rise of water levels in oceans, rivers and lakes that can pilot devastation in the form of floods.

As evident from Fig. 3, temperature anomalies are projected to increase in coming years. Before, the 20th century, the situation was well under control but the beginning of the current century, the situation started to worsen .This was all due to increase in global warming majorly due to the fact that new industries and power houses started operation and emitted harmful gases which cause the planet to heat up. This data is based on the research carried out by different climate and environmental research agencies.

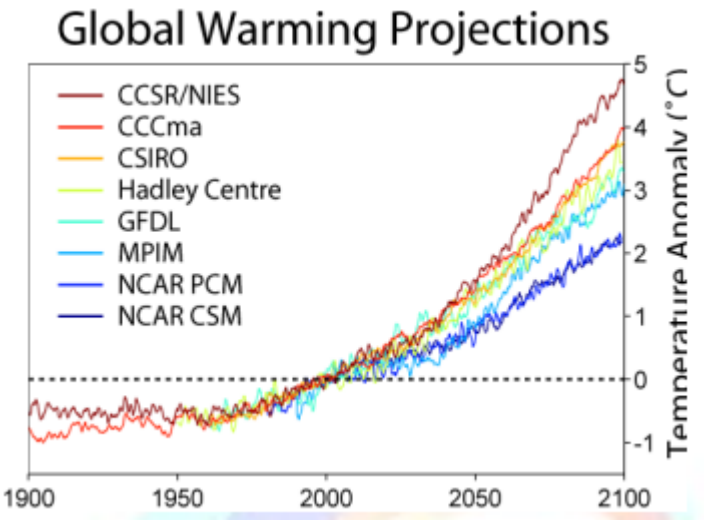

Fig. 3 Global warming projections by various Science and Engineering research agencies

Similarly, Fig.4 elaborates the risks and impacts of global warming in years to come. As can be inferred from figure, we are currently experiencing severity of extreme climate events in the form of thunderstorms, floods and earthquakes. This destruction will take a sharp hike if nothing is done to stop this menace. Fig. 5 depicts global mean temperature in the recent years according to National Aeronautics and Space Administration (NASA). The trend clearly puts up a serious question for us. How will we survive on earth given the rise in temperature to prevail?

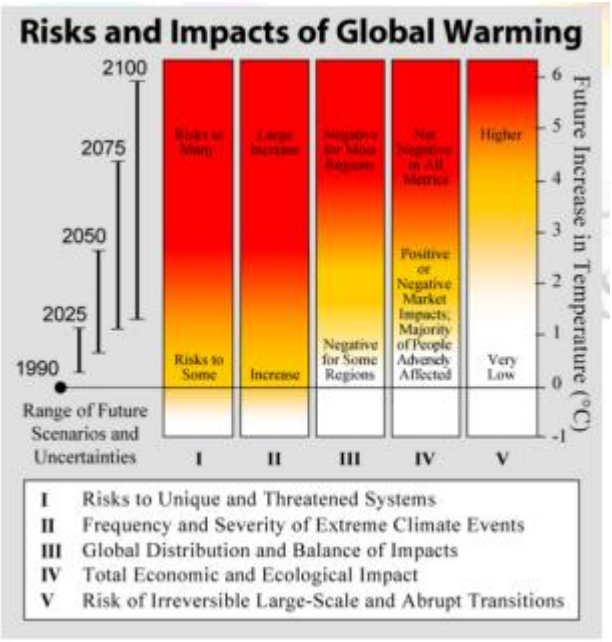

Fig. 4 An assessment of the relative impact and risks connected with global warming. Five categories are assessed. The bars are colour-coded to show level of impact/concern for each factor as a function of temperature increase

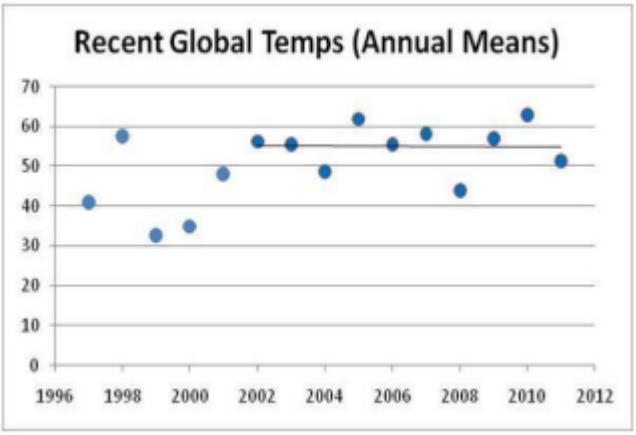

Fig. 5 Recent global mean temperatures according to NASA

Effects on Living Beings

Global warming can severely affect the health of living beings. Excess heat can cause stress which may lead to blood pressure and heart diseases. Crop failures and famines, which are a direct consequence of heating up of earth, can cause a decline in human body resistance to viruses and infections. Global warming may also transfer various diseases to other regions as people will shift from regions of higher temperatures to regions of comparatively lower temperatures. Warmer oceans and other surface waters may lead to severe cholera outbreaks and harmful infections in some types of sea food.

Moreover, it is an established fact that warmer temperatures lead to dehydration which is a major cause of kidney stones. A medical team from The Children's Hospital of Philadelphia examined the health proceedings of more than 60,000 Americans alongside weather records. They discovered that individuals were most likely to be hospitalized with kidney stones three days after a temperature rise. Since 1994, kidney stone incidence has risen from about one in 20 people to one in 11. This trend is likely to increase as the globe gets hotter. According to Luis Ostrosky, M.D. of the Division of Infectious Diseases at The University of Texas Health Science Centre at Houston Medical School and medical director for epidemiology at Memorial Hermann-Texas Medical Centre: “One infection that is definitely making a weird pattern is valley fever”. In his words, “This is a fungal infection we used to see only in California, Arizona, New Mexico and a little in Texas, but last year we found it for the first time in Washington State.”This potentially deadly condition caused apprehension in California when the number of cases increased drastically during 2010 and 2011. Valley fever infections have been on the rise, probably because of warming climates and drought causing dust storms. Dry soil and wind can carry spores that spread the virus. Hotter and drier climates are projected to a rise in mosquito-borne disease like dengue fever and malaria due to warmer and longer summers. Perhaps the most prominent mosquito-borne disease, West Nile Virus, has already experienced a sharp increase in annual cases. According to the U.S. Centres for Disease Control and Prevention, the summer of 2012 was the nastiest West Nile season on record. The likely reason was that summer's scorching heat and drought. Lyme disease is another dangerous disease which is transmitted mainly through bites from certain tick species. Fig. 6 describes in the form of a block diagram that how alterations in global climate can affect human health. The bitterest fact is that it can cause various diseases and deprive human beings of the food.

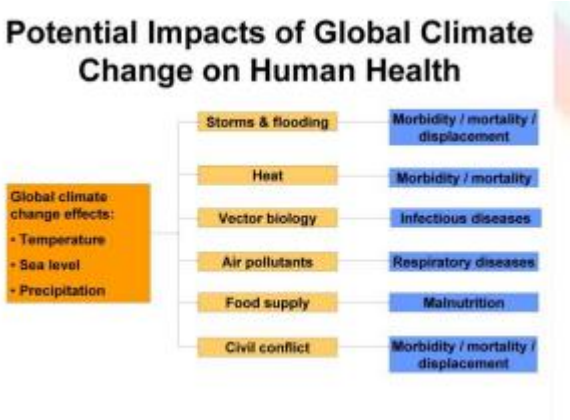

Fig.6 Potential impacts of global climate change on human health

Global warming is also affecting animals. They need to move to cooler places in order to survive. This process has been observed in various places, for instance, in the Alps, in mountainous Queensland in Australia, and in the misty forests of Costa Rica. Fish in the North Sea have been reported to move northwards too .The impacts on species are becoming noteworthy to such an extent that their movements can be used as a sign of a warming world. They are the silent witnesses of the swift changes being inflicted on the Earth. Scientists and researchers predict that global warming is gradually damaging the ecosystems of various species and is playing a very unconstructive role in making them extinct. For instance Asia's only ape – the orang-utan – is in bottomless trouble. Its last remaining strongholds in the rainforests of Indonesia are being endangered by a range of pressures, including climate change, putting the animal at the menace of extinction within a few decades. With global warming continually increasing the duration and frequency of droughts, bushfires are occurring more often in these heavily logged forests, further fragmenting the orang-utan's living domain. Similarly, in Africa, elephants face a series of threats including shrinking living space, which brings them more regularly into divergence with people. With this reduced living space, elephants will be unable to escape any changes to their natural habitat caused by global warming, including more common and longer dry periods, placing further pressure on their survival.

Alternative Energy Sources

The hazards caused by global warming are tremendous. Excessive use of fossil fuels such as coal, natural gas and oil play a part in it too. The usage of fossil fuels should be discontinued immediately. The most significant solution to put an end to this disaster is the use of alternative energy sources. They include wind, solar, bio mass, geothermal and hydro. The most noteworthy point in using these sources is their clean nature. They do not produce any sort of pollution or toxic gases that can lead to global warming. They are environmentally friendly and pose no threat to ecological balance. However, their high installation and setup costs may drive energy companies away from them at first but in the long run they are surely beneficial for everyone. Most importantly, fossil fuels will deplete one day and sooner or later, we have to turn to renewable energy sources for energy production. Thus, the eventual solution to end global warming is to use alternative energy sources. Fig. 7 depicts in a pictorial way that earth can be saved from the hazards of global warming if we utilize renewable energy sources.

Fig. 7 Save earth from global warming by using renewable energy sources

To counteract the medical hazards of global warming, it is essential to turn to renewable energy sources. Public, in general, should be responsible about their decisions on energy conservation methods. This will ensure a healthy atmosphere and stable climate for our future generations. Governments should devise and pass policies which encourage the energy companies and people, in general, to use renewable energy instead of conventional energy, Nongovernmental organizations (NGOs) should distribute pamphlets to people motivating them to use alternative sources of energy and discourage them from using fossil fuels. They should also explain to them the hazards which the usage of fossil fuels will cause. Many developed countries are already generating huge amounts of power using renewables. These countries should extend their helping hand to developing countries to combat the evil of global warming collectively. Using renewable energy is the most effective way to curtain the emission of gases which play a major role in global warming.

Fig. 8 and Fig. 9 show that the use of renewables is gradually increasing. The figure should be much more than present so that we can tackle the problem of global warming timely and effectively.

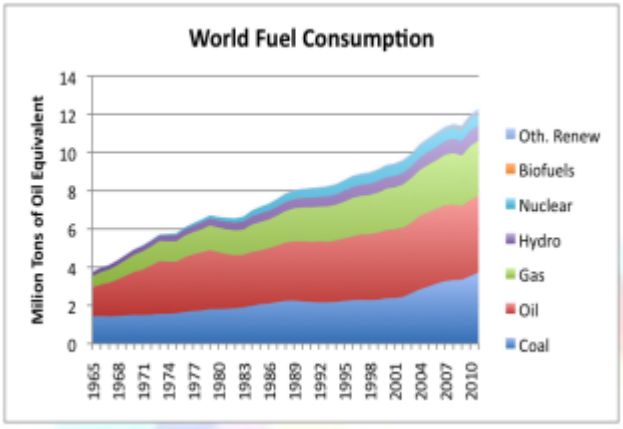

Fig. 8 World fuel consumption in recent years

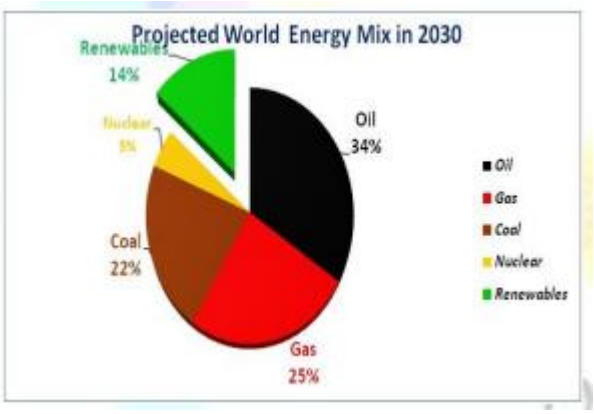

Fig .9 Projected world energy mix in 2030

GLOBAL WARMING CONTROL

Global Warming causing temperature rise in environment may effect to change in the atomic properties of the elements like motion, valency, magnetism, electrostatic, conduction, electronic structure, crystalline structure, electro positivity and electro negativity etc. Also this Global Warming has a great impact on earth's magnetism, gravitation, ice meltation, sea overflow, change of weather, disease affective bacteria-virus explosion etc. Due to change of atomic nature and properties with respect to rise of temperature, human and botanic life will be highly effected and causing serious problem as nature pollution. Therefore, we have to be more careful for maintaining standard natural temperature and pressure at all places in the earth. We must create a total safe region inside the factory as well as outside the factory regarding the pollution measure. Now-a-days our life patterns are difficult one and surrounded by complexity for this global warming issue. Industries, refineries, excessive electromagnetic wave propagation through air, transport vehicles – road and airways, rapid growth of entertainment equipment like air conditioned (A.C) machine, refrigerator, television, mobile phone, computer, MP3, CD, DVD-player etc. are the main cause of increasing environment temperature. Our healths with minds are not playing in a smooth natural way to offer the best output in the respective jobs.

Conclusion

153 nations have agreed to sign the convention on climate change in Earth Summit held at Janeiro for reducing emission of CO_2 and other greenhouse gasses in 1992, last year (2009 A.D) World Climate Summit for Checking Green House Effect has been held at Copenhagen between the high profile officials of all countries like Presidents, Prime Ministers etc. Therefore to control global warming, Industrialization (Industry should grow with minimum working space effecting least environment pollution) and Naturalization (Maximum portion of the earth must be covered with either agricultural green trees or clean water) have to be provided side by side and at the same time people have to cut short all type of entertainment equipment, finding alternative sources of energy like renewable energy, manufacturing fuel or alternative fuel efficient vehicles etc. In fine, the Nobel-poet Tagore appeals “Dao phire se aranya, lao a nagar” meaning that “Give back those forests, take these cities”. It signifies that our city oriented industrial life pattern is destructing natural climate and forests around us; as a result environment temperature is rising rapidly. Therefore, it is the earnest duty to maintain natural harmony and bring back trees plantation and green forests growth in full swing having the least damage by industrial wastes. By this way, global warming may be controlled or rather incautious for the coming days.

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