

## GLOBAL WARMING-A THREAT TO ECOSYSTEM

*Navneet Kaur*

*Assistant Professor, Department of Physics, DAV College for Girls, Yamuna Nagar*

### ABSTRACT

Rise in industrialisation is usually associated with income and improved living standards .It is associated with both pros and cons .Although ,industrialisation is need of an hour but should be managed and controlled in such a way that it should not harm the flora and fauna of our ecosystem .Upcoming paragraphs illustrates how reckless release of unwanted gases and pollutants like carbon monoxide and chlorofluorocarbons released in the atmosphere gives rise to temperature which gives rise to a serious issue of global warming which is not only affecting the natural phenomenon also which is responsible for the extinction of various species and wildlife like bids ,polar bears ,marine and aquatic sea life. This is also a serious problem for human beings too as our ecosystem is interlinked with each other .Even a small change in an ecosystem give rise to a major impact on all the living creatures if there is rise in sea level of about 50 cm only than turtles have to lose their nesting grounds .There is already a decrease in the population of fishes.Moreover,many respiratory problems like asthma and pre-term birth as well as cardiovascular diseases, kidney diseases as well as cancerous diseases are increasing due to ecological imbalance .Not only this ,increase in temperature signifies increase in mosquitoes population and thereby increasing the risk of malaria, dengue and many more virus too .Prolonged exposure to heatwaves result serious issue on the health of old elderly and sick people .This has a major impact on agriculture sector too as production in yield automatically decrease due to major rise in temperature. So ,global warming is a serious worldwide problem due to which weather has changed a lot and has many negative impacts on flora and fauna .Change in temperature cause change in rainfall also due to which more frequent and severe storms occur .As upcoming paragraphs also depicts causes and its effects as well as measures to prevent global warming. The approach of paper is descriptive with some references and data from various research papers as well as online surfing so as to inculcate the interests of people towards nature ecological imbalance due to human activities like global warming due to increase in earth's temperature. I found that each and every being on atmosphere how gets affected due to mismanagement or reckless use of resources which if one use eco-riyendly resources and show love towards nature then definitely it would prove a boon for nature as well as human beings as well.

**Keywords** Extinct, Enhancement, Remarkable, Reckless, Prevent, Alarming, Soot

### INTRODUCTION

In modern era ,industrialisation has a remarkable positive as well as negative impact on human life and to our ecosystem .Burning of fossil fuels to produce electricity like thermal power plants as well as many coal run industries directly leads to produce gases like carbon dioxide ,methane and nitrous oxides increases the temperature of the planet which is a serious issue which ultimately leads to global warming .Sunlight from sun after reaching the earth's surface ,gets absorbed by water bodies .About 29% of sun's energy that arrive at the top of atmosphere by waterbodies and ozone and 48% pass through atmosphere and absorbed by earth's surface .Thus ,about 71%of total solar energy is absorbed by earth system .Any matter on earth that absorbs heat and gets excited and move quickly .Due to this, temperature of material gets increased and this process further go on thereby increasing the earth's atmosphere .Also the amount of heat radiated is fourth power of its temperature .Many thermal plants run day and night on an average about 40%of carbon dioxide gets released into the atmosphere due to combustion of fossil fuels to produce electricity which is one of the primary heat trapping greenhouse gas which is major cause of greenhouse gas.In addition to this ,many nitrogenous and sulphur oxides ,methane ,soot also released in the atmosphere too.

These greenhouse gases behave like a blanket for earth as they trap the sun's heat there by causing the earth warm and this increases the percentage of temperature which is alarming .Due to this ,there is a huge change in the climate .Due to increase in temperature as sea level rises due to melting of glaciers ,on some parts there are droughts .some countries are based on agriculture as in some parts of India due to change in climate there is less rainfall which directly has a major impact on the yield .The rate of increase in the temperature is now has been increased at a much higher rate than the recorded history which is undoubtedly a serious threat for all the living species on earth as well as marine life too .Now forest fires are increasing at a much higher rate .for an instance ,bush fires in Australia is one of the major reason due to global warming .Due to this, millions of species got died every year .Furthermore ,if this bushfire increases than it impacts on community as well as nearby residents too resulting in huge loss of wildlife as well as human life too .Due to decrease in sea ice polar bears suffer a lot as they have to travel to remote distance for their proper food .If in case they don't get than they ultimately die due to malnutrition .If this problem keeps on going than that day is not far that polar bears will also got extinct one day due to global warming .

## OBJECTIVES

1. To analyse the causes of global warming.
2. To create awareness to prevent global warming.
3. To discuss preventive measures and techniques to solve this problem.

## METHODOLOGY

The approach of paper is descriptive with some instances from media and reports as well as some online research papers and some newspapers too. This paper covers causes and effects and also some measures to prevent this problem. The main sources of information are related websites, books and magazines.

The paper is discussed as per the following parts

## DISCUSSIONS/ANALYSIS

### Causes and Its Effects

**Power Generation:** Almost 29% of renewable energy comes from renewable resources and rest is generated by burning fossil fuels which means the resources which are not eco-friendly are in more use than the environment friendly resources which ultimately releases more toxic gases into the air thereby trapping the heat into the earth's atmosphere and thereby increasing the temperature on earth leading to the problem of global warming.

**Reckless Production of Manufacturing Goods :** In order to cope up with modern world and looking smart, many industries are being set up which are producing goods unnecessarily to meet the demands of young generation as well as age of every people which is adversely releasing the toxic gases into the atmosphere on a very large scale as more plants run simultaneously and are making the environment temperature high day by day. Carbon dioxide is one of the major pollutant released in the atmosphere which is one of the major pollutant in the atmosphere causing the increase the temperature on earth and thereby disturbing the ecosystem on earth.

**Deforestation:** Forests play a crucial role in maintaining ecological balance as well as maintain temperature on earth surface. If more and more trees are cut in hilly areas to construct any plant or any industry than it will have devastating bad effects on the ecological balance as carbon-di-oxide level will automatically enhance and ultimately increases the threat of global warming. Some species's body is designed in such a way that it cannot bear the much heat and finally they are extincting but due to human race of industrialisation, temperature is increasing at a rate greater than their capability to resist the heat due to which many species are dying day by day. Now a days, glaciers are also melting at a very high rate which results in floods and damage to nearby habitat too. For an instance, Joshimath, a gateway to Badrinath and a well-known tourist place was a well-known religious as well as resting place for many tourists is one of the best example of human selfishness against nature (Tribune- India, Mongbay-India). As there too many heavy buildings and many multi-storey hotels have been built up more than the strength of base of the building due to which now roads are sinking and cracks are appearing in the houses of people due to which now people are forced to leave their property and houses too. Some hotels have also shed down completely due to which too much loss occurred to life as well as nearby residents too. People are cutting trees without consulting government but excess of everything is bad so now people are paying for what they have sown.

**Increased Drought:** Due to global warming, as temperature is increasing, some areas have also become deficit of water. Due to which deserts are expanding and making more land unfit for cultivation. Almost 55 million people are affected globally due to drought. Some are also Facing Hunger And Malnutrition Problems Due To Less Yield. (World Health Organization)

**Health Impact:** The rise in temperature has caused soil degradation and acidifications of oceans causing non-communicable diseases like injuries during natural disasters, and mortality rate has increased due to heat strokes. After floods increase in water-borne pathogens and cases of leptospirosis. Tick-borne diseases have been increasing from past few years as cycle of laying of eggs become faster in more temperature regions which definitely give rise in the cases of malaria, typhoid, dengue and many more. So increase in temperature has adverse effects on the health of human beings.

## MEASURES TO PREVENT GLOBAL WARMING

**Use Of Ecofriendly And Renewable Sources Of Energy:** If one uses the nature friendly resources to produce energy than it will not release toxic gases in the atmosphere and it will definitely help in the reduction of emission of harmful gases. And ultimately will decrease the level of carbon dioxide gas level as well as other toxic gases level. Government has already taken many initiatives to resolve this issue as government is providing subsidies in bill as well as in installation of solar power plants too. This will definitely decrease the concentration of carbon dioxide gas in the atmosphere and thereby solving the issue of global warming.

**Afforestation :** If an individual plant only one tree like on a birthday or any special occasion than only a single tree can absorb one tonne of carbon dioxide over its whole lifetime .So this effort by everyone on a same day will results in billion trees in one day approximately which definitely will prove a boon for ecosystem and will maintain ecological balance on earth .Each and every individual on the earth should learn their importance of forests in our life as they maintain ecological balance as well as protect us from various harmful problems also and maintain water cycle too .Adding further, in case of heavy floods ,trees act like a shield for us as they hinder the flow of water current level also and ultimately saves our shelter as well as our life too.

**Use of Electric Bikes and Cars:** with the advent of technology and mankind, human brain and hardworking has developed those sources by using which human purpose can be solved without harming nature. These inventions have advantage that they produce almost zero pollutant emissions which directly reduce the greenhouse impact and thereby reducing the global warming problem too. Furthermore, by using e-bikes an individual health can be sustained too. If an individual will use electric bikes and cars than it will reduce the poisonous gases emissions due to burning of petroleum .If an individual uses these vehicles than almost zero pollutants are released which is definitely a golden boon for human beings as well as animals too .Now a day ,with the enhancement in technology electric cars are also brought up in the market with greater efficiency and very less harmful emission in the atmosphere. We should use these eco-friendly resources if we want to get rid of dangerous diseases .This will not only preserve the natural resources like coal and petroleum but will definitely make the air free from poisonous pollutants .

**Other Solutions :** we should drop the habit of buying unnecessary things as it will definitely decrease the competition among individuals and definitely decrease in the production of reckless goods .No only this ,we should avoid using cars and vehicles to nearby areas as we should prefer to go to nearby places by walking which will definitely improve stamina as well as cardiovascular system ,digestive system ,muscular system of an individual.We all should show love to nature and respect to all its creatures by avoiding our selfish nature .we should consult to government before making any building especially on hilly areas as that building is capable for withstanding weight or its soil moisture content is capable of holding any building so that our efforts as well as harm to nature can be reduced .This will definitely enhance our ecological balance and decrease in the concentration of greenhouse gases and ultimately an optimum temperature conditions can be maintained if each and every individual become aware of harmful impacts of global warming.If this problem not be taken seriously then a day is not far when life on earth would become difficult to survive .

## FINDINGS AND SUGGESTIONS

After writing all the data in my research paper ,I felt so devastated that human selfish instinct is destructing nature's flora and fauna at a great extent such that it would ultimately have impact on human like in the form of various diseases. Endangered species, disturbed ecological balance, harsh weather conditions are all ill effects of rise in temperature.Global warming is a very serious issue .Alone government cannot do against this serious problem we all have to join our hands with the government schemes as well as plant trees, move towards e-vehicles and various eco-friendly resources and should avoid reckless use of sources. As now we should not ignore this more because we are already facing serious issues because of global warming because we are well aware that prevention is better than cure.

## REFERENCES

1. Denchak, M.(2022) How can you stop Global Warming [www.nrdc.org](http://www.nrdc.org) april 20 ,2022
2. Lindsey, R.(2009) Introduction,(NASA illustration from paper published on Jan 14,2009 in Earth's Energy Budget) <https://earthobservatory.nasa.gov>
3. Pandey,K(2023) As cracks widen in Joshimath,reasons lay hidden underground .[india.mongabay.com](http://india.mongabay.com),18jan2023[www.un.org](http://www.un.org)
4. Shahzad ,U. (August 2015)"Global Warming: Causes, Effects" and Solutions(University of Nebraska at Linclon) <https://www.researchgate.net>
5. Turrentine,J(2021) Introduction:Global Warming 101 [www.nrdc.org](http://www.nrdc.org),April7,2021 <https://www.nationalgeographic.org>
6. DroughtDrought,WorldHealthOrganisation [https://www.who.int/healthtopics/drought#tab=tab\\_1](https://www.who.int/healthtopics/drought#tab=tab_1)
7. [,https://en.m.wikipedia.org](https://en.m.wikipedia.org)
8. <https://simple.m.wikipedia.org>
9. Joshimath findings([india.mongabay.com](http://india.mongabay.com)),18 february,2023
10. Measures to prevent global warming: global warming vs. climate change"<https://www.climate.nasa.gov>
11. Preventive measures:10 ways to stop global warming:facilities-Northwestern university <https://www.northwestern.edu>
12. Lawrence M.krauss(2021) The Physics of Climate Change.Post Hill Press,2 March 2021
13. Ramesh,M.(2018) The Clim Sharma,P. Ecology and environment, Hatchette India,15
14. May,2018
15. Sharma,P(1996) Ecology and environment ,Rastogi Publications,Meerut,1996
16. [www.nrdc.org](http://www.nrdc.org)
17. <https://www.hindwani.com>
18. <https://dergipark.org.tr>
19. <https://www.who.int>