

# [Ozone layer depletion essay](https://assignbuster.com/ozone-layer-depletion-essay/)

OZONE LAYER DEPLETION

“ A giant asteroid could hit the earth! Something else

could happen! The global temperature could rise!

Wakeup!”(edf. org)

Science is a body of knowledge containing various

streams such as physics, chemistry, biology etc. “ Its

sub-behavioral concept is Technology, which has made

tremendous changes in the modernized world. Climate is

a field of the science. Climate is a natural

consequence in which all the human beings

exist.”(Technology and Environment page 25). “ The

first thing people see, in the morning, when they walk

outside is the sky or the colored sun. Is this world

giving us the privilege of seeing the natural colors

of the sun through all the layers of pollution within

the air?”

A blanket of air, which we call the atmosphere,

surrounds the Earth. It reaches over 560 kilometers

(348 miles) from the surface of the Earth, so we are

only able to see what occurs fairly close to the

ground. Early attempts at studying the nature of the

atmosphere used clues from the weather, the beautiful

multi-colored sunsets and sunrises, and the twinkling

of stars. With the use of sensitive instruments from

space, we are able to get a better view of the

functioning of our atmosphere. “ The atmosphere, solar

energy, and our planet’s magnetic fields support life

on Earth. The atmosphere absorbs the energy from the

Sun, recycles water and other chemicals, and works

with the electrical and magnetic forces to provide a

moderate climate. The atmosphere also protects us from

high-energy radiation and the frigid vacuum of space.

The envelope of gas surrounding the Earth changes from

the ground up. Four distinct layers have been

identified using thermal characteristics (temperature

changes), chemical composition, movement, and density.

That comprises of Troposphere, Stratosphere,

Mesosphere and atmosphere. The atmosphere is

primarily composed of Nitrogen (N2, 78%), Oxygen (O2,

21%), and Argon (AR, 1%). Argon includes all the other

gases present in the atmosphere. A myriad of other very

influential components are also present which include

the water (H2O, 0 – 7%), “ greenhouse” gases or Ozone

(O; SUB3, 0 – 0. 01%), Carbon Dioxide (CO2, 0. 01-0. 1%),

The envelope of gas surrounding the Earth changes from

the ground up.”(Climate of Hope, p. p. 2563)

Now, the interesting fact is the information of a

layer of atmosphere, which surrounds our atmosphere.

“ Orbiting above the Earth, an astronaut can look down

on our home and see the thin blue ribbon that rims our

planet. That transparent blanket in our atmosphere

makes life possible.” Yes, It is the Ozone Layer. It

provides the air we breathe and regulates our global

temperature. And it contains a special ingredient

called ozone that filters the solar radiation. Life as

we know it is possible in part because of the

protection afforded by the ozone layer.. The term

itself comes from the Greek word meaning “ smell,” a

reference to ozone’s distinctively pungent odor. “ Each

molecule contains three oxygen atoms bonded together

in the shape of a wide triangle. In the stratosphere,

new ozone molecules are constantly created in chemical

reactions fueled by power from the sun. The recipe for

making ozone starts off with oxygen molecules. When

struck by the sun’s rays, the molecule split apart

into single oxygen atoms, which are exceedingly

reactive. Within a fraction of a second, the atoms

bond with nearby oxygen molecules to form triatomic

molecules of ozone”(Climate Change).

“ Ozone is an allotrope of Oxygen. Allotropes are two

or more forms of an element with different chemical

and physical properties. Molecules of diatomic oxygen,

the form of oxygen with which most the people are

familiar, contain two atoms each, as shown the formula

O2. In contrast, molecules of ozone contain three

atoms each and are represented by the formula

O3.”(Kelvin, page 46). Both oxygen produces ozone and

anthropogenic (human caused) sources. In the

troposphere the layer of atmosphere nearest to the

earth’s surface, ozone is generated in a complex

series of reactions associated with the combustion of

fossil fuels. “ Ozone is most commonly found in the air

above the urban areas where sunlight initiates these

reactions among the products released from automobile

and truck exhausts. Since troposphere ozone can cause

damage to the living organisms, especially plants, it

is regarded as pollutant. The solution is very

different in the stratosphere, the next higher layer

of the atmosphere. Thee ozone is produced by natural

processes. And had a beneficial function for the

terrestrial organisms” (M. Minaret’s, ). In the

stratosphere, radiant energy from the sun can cause an

oxygen molecule to break apart into two oxygen atoms:

O2 = O + O.

Each oxygen atom can then react with other oxygen

molecules to form ozone.

O + O2 = O3

The stratospheric concentration of ozone therefore

represents a balance, established over the aeons,

before creative and destructive forces.” The total

level of ozone in the stratosphere remains fairly

constant, an arrangement resembling a tank with open

drains.) For about a billion years, the natural ozone

system worked smoothly, but now human beings have

upset the delicate balance. By polluting the

atmosphere with additional chlorine-containing

chemicals, we have enhanced the forces that destroy

ozone — a situation that leads to lower ozone

concentrations in the stratosphere. “ The addition of

these chemicals is the same as drilling a larger

“ chlorine” drain in the tank, causing the level to

drop. “(Flavin, Introduction)

Stratospheric ozone is primarily created by

ultraviolet (ULTRA VIOLET) radiation. The Sun’s output

affects the rate at which it is produced. The Sun’s

energy release in the ULTRA VIOLET part of the

spectrum does vary, especially over the well-known

11-year sunspot cycle. Observations over several solar

cycles since the 1950s show that total global ozone

levels decrease by 1 to 2% from the maximum to the

minimum of a typical solar cycle. Even as the sun’s

energy produces new ozone, natural compounds

containing nitrogen, hydrogen, and chlorine

continuously destroy these gas molecules. Such

chemicals were all present in the stratosphere — in

small amounts– long before humans began polluting the

air. Nitrogen comes from soils and oceans, hydrogen

comes mainly from atmospheric water vapor, and

chlorine comes from the oceans. “ By the middle of the

twenty first century, there is evidence that the Earth

will be warmer than it has been at any time in human

history, and quite possibly since the end of the

dinosaurs, some 65 billion years ago. If we stay at

the rate we our now (fossil fuel consumption / growth

in population) then within the next two century the

Earth’s air might not be fit to breath.” “ The term

greenhouse effect is used to describe the increased

warming of the Earth’s surface and lower atmosphere

due to increased levels of carbon dioxide and other

atmospheric gases that absorb radiated energy in the

atmosphere and then reradiate it back to the surface.

The recently -observed long-term changes in ozone are

much greater than this. They cannot be attributed to

changes in solar activity. “(Cogan, p. p. 2432).

Here comes about the major scientific problem

occurring in today’s climate causing warming of earth

and leading world atmosphere to dangerous

consequences. Yes, it is the hole in the ozone layer

known as the “ Ozone Layer Depletion”. Gradually, it

has become clear to scientists and to governments

alike that human activities are threatening our ozone

shield. Behind these environmental problem lies a tale

of twin challenges: the scientific quest to understand

our ozone shield and the debate among governments over

how to best protect it. Ozone layer Depletion is now a

days a very major scientific problem. A totally

depleted ozone layer would render the earth’s surface

inhabitable. “ In the U. S. by the next century if the

matter of ozone was not looked into

“(globalwarming. org). “ We wouldn’t be able to go

outside without wearing hats at that time, and we

wouldn’t be able to build things out of plastic and

rubber that would be exposed to the sunlight because

they would deteriorate much faster,” says Toyland,

environmental protection specialist working with the

united states environmental protection agency, while

speaking about the worst effects of the ozone layer

depletion”(Atmospheric Ozone-I). Looking at these and

many such effects one wonders as to what depletion

actually is? And what are the impossible solutions for

it? To understand it clearly, we should look in the

matter in four steps, What is causing the depletion of

the ozone layer? What are the effects of depletion of

ozone layer and what are possible solutions to the

problem? “ Damage to the ozone layer has dangerous

consequences for humans, because the ozone molecules

function As a shield from the sun’s radiation,

absorbing some of the harmful ultraviolet rays, before

it reaches the earth’s surface” (greenhouse. net).

“ Concerns about damage to the ozone layer go back to

the early 1970’s. A number of scientists were

concerned by two possible threats to the ozone layer:

rockets fired off by the U. S. National Aeronautics

and space Administration (NASA) and proposed

Supersonic (SST) aircraft. Calculation suggested those

chlorine atoms released by rockets and SST’s could

bring about the decomposition of ozone molecules with

a subsequent deterioration of the ozone layer. In

1974, however, an even more troubling threat to the

ozone layer was identified. “(Atmospheric Ozone -II).

“ Two American scientists Mario Moline and F. Sherwood

Rowland, hypothesized that a group of compounds known

ass chlorofluorocarbons (CFC’s) could release chlorine

in the stratosphere and damage the ozone

layer”(American Geophysical Union, Journal). CFC’s are

simply organic compounds made up of chlorine, carbon

and fluorine. “ The fact that (CFC’s don’t break down

is a benefit for there many applications but a curse

for the stratospheric ozone. They have become very

popular as a propellant in Aerosol sprays such as

deodorants, hair sprays, spray paints, pesticides and

similar materials (P4). Because CFC’s are not

dissolved by rain, over the years they rise, over the

years they rise to the ozone layer in the

stratosphere, about 10 to 20 miles (15 to 30

kilometers) above the earth’s surface.”(Atmospheric

Ozone-III) There, CFC’s can linger for 100 years,

while the sun’s harsh radiation breaks them down,

releasing atomic chlorine. One chlorine atom can

destroy more than 100, 000 ozone molecules

(Transportation, pp. 67-72). a group of scientists

including the Nobel prize winner Mario Moline, in the

late 70’s discovered another chemical that was

gobbling up the earth’s ozone. “ The chemical was known

as Methyl Bromide. Methyl Bromide was widely used as a

soil fumigant in growing certain fruits and

vegetables” (Earth Care Annual).

Ozone’s structure allows it to absorb a certain kind

of ultraviolet sunlight that would otherwise reach the

surface of the earth ad effect the living material

(Hazardous Air Pollutants, page35). Ozone’s absorption

of ultraviolet rays is critical for the well being of

mankind. “ ULTRA VIOLET radiation is typically broken

down into three parts: ULTRA VIOLET-a (320 to 400 NM),

ULTRA VIOLET-b (280 to 320 NM), and ULTRA VIOLET-c

(200 to 280 NM). ULTRA VIOLET-c is quickly absorbed by

small amounts of Ozone, (Earth care Annual, page

2637) Exposure to ULTRA VIOLET-b can cause damage to

DNA (which carries the genetic information in living

organisms). Changing regional climate could alter

forests, crop yields, and water supplies. It could

also threaten human health, and harm birds, fish, and

many types of ecosystems. Deserts may expand into

existing rangelands, and the character of some of our

National Parks may be permanently altered.

Unfortunately, many of the potentially most important

impacts depend upon whether rainfall increases or

decreases, which can not be reliably projected for

specific areas.”(Hazardous Air Pollutants, page

53129).

Scientists have been seriously considered this

problem and have been working towards the solution of

this problem. There have a few good proceedings, but

there is no perfect solution for it as for now. “. One

of the most serious effects of global warming, as it

continues to intensify, is the increase in the ocean

levels. “ Thermal expansion of the ocean and glacial

melting are likely to cause a . 5 to 1. 5 meter rise in

the ocean level by the year 2100. As the ocean level

rises and if no protection is provided, many

freshwater supplies could be jeopardized. Tens and

possibly hundreds of millions of people will lose

their water supplies to salt water intrusion because

of sea level rise. The warming of ocean surface

waters could possibly create more powerful hurricanes,

cyclones, and windstorms. “(Benarde, page 59).

Global warming will also have a drastic effect on the

climate of the world in areas such as weather patterns

and water resource supplies. The Thinning off the

earth’s ozone layer has allowed greater amount of

skin-burning UV-radiation from the sun to reach the

earth. Increased exposure to UV has been shown to harm

human health, damage freshwater and marine ecosystems,

reduce crop yields, and affect forests. The most basic

impact for humans is the increase in skin cancers.

Over exposure to the sun’s UV rays can also cause eye

damage, including cataracts, and may even weaken the

immune system. It has impact on agriculture, including

many of the world” major food crops. It has been

observed that some crops, such as barley and oats,

have shown decreased growth as a result of exposure to

increased UV- radiation. In marine ecosystems, it can

damage the tiny single -celled plants, known as

phytoplankton, which form the base of the food chain.

Decreases in the food source at this early stage, may

have effects throughout the entire system, and could

ultimately affect fish populations. Increased UV

levels also reduce the lifetime of construction

materials used outdoors, particularly the plastics

that are prevalent in our homes, playgrounds, and

other structures. Forestry research found that trees,

which grow at higher elevations, are more resistant.

Global warming research is giving more indications,

although certainly not proof, that highly volatile

weather patterns are one of the consequences of rising

atmospheric concentrations of greenhouse gases.

“ These altered weather patterns can have many effects

such as floods, droughts, and reduction in the amount

and quality of water resources. There is no

indication whether there is going to be an increase or

decrease in the total precipitation.”(Bigg, page 399).

Many areas will have a substantial amount of rainfall

causing severe flooding, while other areas will have

major droughts. “ However global warming will create a

decrease in the snow pack in many mountainous areas

because the high winter temperatures could cause more

precipitation to fall as rain than as snow. This

could create a run off that would fill downstream

reservoirs too early. Thus, during the spring when

the reservoirs are normally filled, they would not be

able too, because of the early snowmelt. As a result,

the reservoirs would have a reduced amount of storage

for the summer and fall.”(Hewitt, page 486). Some

other areas that are effected by the increase in

greenhouse gases are agriculture and ecosystems.

Lower water supplies and increased weather variability

may hurt the agriculture industry. On the other hand,

a longer growing season and increased growth that

would be stimulated by higher levels of carbon dioxide

may also help it. “ The increase in temperature and

dryness could also effect plant life and animal life.

Natural ecosystems are in delicate balance with their

environments and climates. The impacts of climate

change become more severe with increases in both the

magnitude and the rate of change.”(Russell,

p. p. 329538).

If the temperatures do rise as predicted several

things could happen. “ The increases of temperature

could alter the growth of crops in areas near the

equator due to insufficient rain and heat. This could

really hurt countries that rely on imported food.

With the high temperatures the polar ice caps could

melt and cause the sea water level to go up 1 to 3

feet. This increase could take out small islands,

coastal cities and some shallow rivers. The

Everglades in Florida would be almost if not totally

wiped right off the map. The Everglades is the home

for many animals and plant life. If it did get

flooded, they would all have to move northward across

very dry land which they will not be able to endure

for very long. When the hot temperatures do spread

southward and northward, tropical disease will spread

with it. Disease that were down in Mexico will maybe

occur in The Carolinas or eventually Vermont. These

new diseases will be hard to deal with causing many

more deaths and illnesses than before. The financial

problem with this is, that the flooding will cause

dams to be built and cities to be reconstructed. The

shortage of food will cause the price of the food to

go up and with all the diseases we will need more

medical supplies and workers. All of this combined

could and will cost a lot of money if we don’t do

something about it now. The computer models can’t

predict exactly what the climate is going to be in the

future, but they can come close to what it will be

like down the road. Scientists proved this by

predicting with computers what the climate was in the

past. “(enviroweb. org).

Looking at the units used to measure the ozone

concentration are the Dobsin Unit(DU)- the principle

unit for measuring ozone concentration. One DU is

about twenty- seven million molecules per square

centimeter( the palm of your hand covers an area of

roughly a hundred square centimeters). The ozone

concentration over the US is about 300 DU and the

antarctic hole during the late spring can drop to 117

DU. The another is Mixing ratios: within a specified

volume, it is a fraction of the number of molecules of

a particular gas divided by the total number of

molecules in that given space.

” The Cretaceous occurred over 100 million years ago.

It was the warmest period we have knowledge of yet.

There was so much carbon dioxide in the air that the

oceans rose many meters. North America was flooded

and split apart into two pieces. The temperature then

was more than fifteen degrees greater than the average

temperature today. “(gcrio. org). Scientists believe

that the tilt of the earth’s axis changes to tilt the

opposite way every 10, 000 years like a cycle. While

going through this cycle it will change the climate of

areas. Right now it is moving so that North America

is going to be close to the sun in the winter.

Seasons become more extreme when the opposite happens.

This controls the cycle of ice ages. “ Volcanoes when

they erupt, send clouds of dust into the air blocking

sunlight. This would cool the earth off more. Oceans

are known to absorb CO2 because of the ocean currents

and the action of plankton. There is some evidence

that there is naturally rapid climate change between

each Ice Age, which confuses the whole global warming

and idea. “(toowarm. com).

While it’s true that volcanoes and oceans release

large amounts of chlorine, the chlorine form these

sources dissolves in water so it washes out of the

lower atmosphere in rain. CFC’s do not dissolve in

water and are not broken down in the lower atmosphere.

Human-made molecules reach the stratosphere and then

release chlorine and bromine. Measurements show that

the increase in stratospheric chlorine since 1985

matches the amount of CFC’s and other ozone-depleting

substances released by human activities. The first

real evidence of ozone depletion was reported in 1985

by the British Antarctic Survey team, which had been

measuring the ozone layer over the South Pole for 18

years. Here, they found a dramatic thinning in the

ozone layer, which developed every year form September

to November. They determined that this “ hole” first

began forming in the mid 1970’s. Since then ozone

concentrations in this area have grown steadily

thinner, with depletions of up to 60 percent occurring

in recent years. While industrial chemicals are the

primary cause of ozone depletion, the extreme cold and

weather conditions of arctic winters contribute to its

depletion. As the temperatures drop., ice clouds form

in the upper atmosphere. These clouds provide a “ spot”

for a combination of chemicals and sunlight to react

with CFC’s, releasing the chlorine to attack ozone.

Thus ozone layer depletion is more severe near the

poles. Every human being should take part in the fight

to stop global warming. “ The government is the key

to this and they better do something soon or it will

be too late. First, the American government should

sponsor a meeting between the nations of this world.

They should establish a committee for handling the

money, politics, and scientific research in order to

help cut back the emission of gases into the

atmosphere. Every country will contribute by donating

money. Each country would be required to give 0. 01 of

their GNP to this committee. If they refuse they will

be boycotted and the participating countries will sell

nothing to them. “(Epa. gov/ozone).

Global warming is a big threat to our nation

and the world. If we do not act now, it may be too

late. “ The Sea levels could rise at 2 to 5 times the

rate of the past 100 years, endangering coastal areas

in the Americas and Europe, and devastating island

nations like Indonesia, where more than 45 million

people live at coastal elevations within a meter of

sea level. The Air pollution could get much worse. All

areas, not just major cities, could see an increase in

the pollutants that increase the frequency and

severity of asthma attacks, emphysema, bronchitis,

other lung diseases etc. These predictions come from

the United Nations Intergovernmental Panel on Climate

Change (IPCC), a 2, 000-member body of international

climate scientists and experts that is recognized as

the authority on the science of global warming. The

other major effects severely caused by the ozone layer

depletion are spreading diseases and illness, crop

losses, coastal flooding and loss of drinking water

supplies, droughts etc. Of course, there is no sure

way of telling if there actually is a greenhouse

effect, but lets not take any chances. Look at what

is happening to this world, and you will see that

there is a pollution problem. “(Epa. gov/ozone).

Many people suggest that the uncertainties of global

warming provide an excuse to do nothing and wait for

more scientific research to be done. “ The main

solution is to slow down the change of the climate by

reducing the amount of greenhouse gases emitted into

the atmosphere. “ Solar energy, wind, hydrogen gas,

biomass, and other renewable energy sources also need

to be used and deeply considered as solutions to slow

down global warming, and reduce carbon dioxide

emissions to the atmosphere. Deforestation must be

slowed and reforestation of previously forested land

that has become agriculturally useless has to be

promoted. That will require conservation incentive

schemes and improvement of farm yields to reduce the

pressure to clear new land. This will not be nearly

as expensive as coping with the costs of global

warming.”(Ewann, page 87183). Controlling

populations is also a necessity in order to control

the consumption of energy and fossil fuels, but you

could write a whole other paper on if they could

implement those laws and what human rights that

interferes with.

Over the last 100 years the global temperatures have

been increasing slowly but steadily. Since 1980 the

temperature has risen 0. 2 degrees C (0. 4 degrees F )

each decade. “ Scientists predict that if we continue

putting the same amount of gas into the atmosphere by

the year 2030 the temperature will be

rising as much as 0. 5 degrees C (0. 9 degrees F ) or

more per decade. Over all the global temperature

could rise

There are steps being taken at this moment to reduce

the gases put into the air but it still isn’t enough.

We need to cut back more by taking a few easy steps.

Plant a tree, or take a bus to work instead of driving

your own car. Those things may not seem like a lot,

but if more and more people do it, it will make a

difference.” Through the eyes of most scientists,

global warming is seen as a very serious and severe

threat.

Then what is the future of avoiding the problem. Will

the Ozone Layer Recover? Scientists feel the ozone

layer should recover, if ozone -depleting substances

are eliminated. Under the Montreal Protocol, an

international agreement to protect the ozone layer,

action has been taken to reduce ozone-depleting

substances. The build-up of the most significant CFC’s

in the lower atmosphere has slowed considerably, and

one of the key chemicals, CFC-11, is now decreasing.

Because of the time it takes for these chemicals to

move from ground level to the stratosphere, the impact

of the Montreal Protocol will now be felt for many

years. It is estimated that the ozone layer should

recover by about 2050- providing that all human -made

ozone depleting substances are eliminated. However,

long term predictions in the case of the ozone layer

depletion are uncertain because the processed of ozone

depletion are not all understood. As well, global

warming and the exhaust from high-flying aircraft may

significantly affect the recovery of the ozone layer.

Now, since it is a big problem that today’s world has

to face such harsh problems due to the ozone layer

depletion, there must be a definite way to control the

layer. Nobody is going in the sky and fix it up as

there is no such technique developed till now. But the

ways are to prevent it. Human consciousness performs

the major intervention in controlling of the ozone

layer depletion. There are many things which a human

being can do voluntarily for controlling the ozone

layer depletion.

One Such way is Car Air Conditioner Tips. People must

Go only to service facilities with EPA-certified

technicians and Ask if refrigerants from their vehicle

will be recovered and recycled during servicing . The

emphasis is on carrying out the Repair in all leaks in

the a/c system (not required by federal law, but

helpful in protecting the ozone layer). About 80

million cars on the road today use CFC refrigerants in

their air-conditioning (AC) systems. If leaky systems

were repaired, it would prevent the release of about

30 million pounds of CFCs this year. Also, it is

important to Ask about converting their cars to a

substitute refrigerant if the a/c system needs major

repair The used refrigerant can be recycled and

reused. Asking their local government or waste hauler

if the refrigerant will be removed before the

appliance is discarded. Concept of saving natural

resources should be developed. And each individual

should perform his goodwill duty towards the

environment on the way of controlling the pollution

and thereby saving himself and world from its adverse

effects.

Basically, the solutions are of three types,

technological approaches, political approaches, and

economic approaches. “ The technological suggestions

are as follows: One suggestion has been to release

simple hydrocarbons such as ethane or propane into the

atmosphere. These compounds are known to react with

the chlorine atoms from the CFCs that initiates ozone

depletion. Compounds like hydochlorofluorocarbons

(HCFCs) and hydrofulorocabons (HFCs) have been brought

into use. The advantage of HCFCs and HFCs is that they

tend to break down quickly in the atmosphere. Every

one agrees that the best way to deal with this problem

is prevention (political approach).”(Bernard, p. p.

329-453). In 1989 some governments agreed to

strengthen the Montreal Protocol. The most significant

decision by the industrialized nations was to phase

out methyl bromide by the year 2010. The Environmental

protection Agency announced a four-pronged programs in

1992 to as economic approach to reduce the release of

CFOs, are restricted to produce the amount needed by

the market. The second element involves a marketable

permit system. Under this, each of the seven U. S.

companies that are authorized to produce CFCs, are

restricted to produce the amount needed by the market.

“ The second element involves implementi8ng Excise Tax

on the sale of CFOs. The third element focuses n the

guaranteeing use of the safe alternatives. The fourth

element focuses n the recycling and reusing the ozone

depleting chemicals. Regulations have been established

that require companies to re-use ozone depleting

materials rather than release them into the

atmosphere. For example, refrigerant used in the

outmoded refrigeration system must be removed and then

reused in newly manufactured equipment. “(Cogan,

Introduction).

Many other steps can be taken individually, at a

national level as well as at an international level.

To make the control of the ozone layer depletion.

Together, the Individuals can make a difference. There

are many Climate Smart tips to protect the Earth. In

the home, the individuals can cut their utility bills

by purchasing energy efficient appliances, fixtures,

and other home equipment and products. The average

house is responsible for more air pollution and carbon

dioxide emissions than is the average car. The Energy

consumption can be reduced by up to 40 percent by

purchasing home products that display the ENERGY STAR

label. Look for the label on refrigerators, washing

machines, dishwashers, heating and cooling equipment,

televisions, VCR’s, and audio equipment. Insulating

the home and tuning up the furnace. Low-flow faucets

in the showers and sinks should be used. The

temperature of the hot water tank should be lowered to

120 degrees. The water -heater and all the water pipes

should be insulated. The persons living in the areas

having the sunny climate should install solar heating

system to provide hot water. There are many areas of

life where a person can take smart actions that will

save money while helping the environment. Some are the

things that can be done inside the home, others

outside in the yard, on the roads and even considering

major investments. In fact, there are things a person

can do anywhere and everywhere. In many ways a person

can help reduce carbon dioxide pollution and improve

the environment.

Climate Change is a global problem requiring action

from the entire international community. Countries

from around the world are working together to share

technologies, experience, resources and talent to

lower net greenhouse gas emissions and reduce the

threat of global climate change. The United States

participates in and supports several international

efforts designed to help countries to address climate

change. One important strategy for reducing global

greenhouse gas emissions is developing and sharing

climate-friendly technologies, commonly referred to as

Technology Corporation. These efforts can occur

between nations, private entities, and organizations

around the world. The United States participates in

various bilateral and multilateral technology

cooperation initiatives that aim to encourage the use

of technologies that will reduce greenhouse gases. As

countries continue to grow and develop, international

cooperation will become increasingly important as the

global community searches for ways to meet the climate

change challenge efficiently and effectively. The key

to successful cooperation is finding the activities

that will help all countries achieve their economic,

environmental, and the developmental goals in a

climate-friendly manner in that.

Today, action is occurring at every level to reduce,

to avoid, and to better understand the risks that are

associated with global warming. On a national level,

the U. S. Global Change Research Program (USGCRP)

coordinates the world’s most extensive research effort

on global warming. In addition, the Clinton

Administration is actively helping to address the

challenge of global warming while, at the same time,

strengthening the economy. Many steps can be taken to

reduce global warming. A person can himself forge

ahead the world to some extent in the ozone layer

depletion by Insulating their home, tuning up their

furnace, and installing efficient showerheads. Next to

leave their car at home two days a week. Next to

recycle their entire home Ms Newsprint, cardboard,

glass, and metal. Installing a solar thermal system to

help provide their hot water can also do it. Then when

they replace the washing machine, the emphasis should

be laid on buying a low-energy, low water use model.

It’s also important to buy food and other products

with reusable or recyclable packaging. Then, When the

refrigerator is replaced, the emphasis should be laid

to buy the high-efficiency model. To put energy-saving

lightbulbs in the three most used lights in their

house. Also the important thing is to plant more trees

and thereby responding the nature with an overwhelming

output.

Finally the question arises that, have all these

steps towards the solution shown any results? The

answer would be in affirmative. . On a global level,

countries around the world have expressed a firm

commitment to strengthening international responses to

the risks of climate change.” The U. S. is working to

strengthen international action and broaden the

participation from people around the world.

Communities around the world can help by trying not to

emit such harmful gases into our atmosphere. The

experts credited a 1987 protocol singed in Montreal,

where governments agreed to limit the use of harmful

chemicals. Alternative refrigerants, parts, and new

equipment are available now for all CFC air

conditioning and refrigeration equipment. As a result

of worldwide efforts to protect the ozone layer, EPA

experts 295 million fewer cases world wide of

non-melanoma skin cancer over the next century.

“(Global Warming, Journal)”

The effects are devastating. It is ten years since the

scientists and the nations have been working towards

the solutions of this problem. The number of

signatories in the Montreal Protocol has increased

from 24 o 163 countries. Some western countries have

already reduced the release of these substances by

half, while other countries like China and Brazil are

trying to follow suit. Unfortunately, it reckoned that

the illegal trade in one of the compounds, CFC’s

“(Global Warming, Journal). We can not wait for

another fifteen years to clean it up. Clearly, the

time to act to reduce global warming pollution is now.

Reducing global warming pollution is important to

reverse the increasing global trend. If no cuts are

made today, and global warming pollution is allowed to

continue, the world could suffer sudden and

devastating climate shifts. Thus, it could be only by

human intervention, that such major problem could be

prevented. Prevention is better than cure. What

differences can one make? When faced with this

question, individuals should recognize that

collectively they could make a difference. Think back

to the days before recycling became popular- when

everyone threw everything out in the trash. In less

than 20 years, most households have gone from

recycling little to nothing to recycling newspapers,

plastics, glass and meta. Many businesses recycle

paper and buy recycled products and many industries

practice source reduction in their packaging efforts.

An entire mindset has changed in one generation.

Taking action on global warming is similar. In some

cases, it only takes a little change in lifestyle and

behavior to make some big changes in greenhouse gas

reductions. For other type of actions, the changes are

more significant. “ Individuals can make a Difference”

identifies actions that many households can take that

reduce greenhouse gas emissions in addition to other

benefits, including saving you money. The actions

range from changes in the house, in the yard, in the

car, and in the store. Everyone’s contribution counts

and its very important to save the environment. Thus,

every individual thinking the nature to be their own

affecting basis, develop a strategy to work the most

out of it in reducing pollution to the maximum

strategy possible and also implement strategies that

governs the controlling of the ozone layer depletion .

It would only lead by common’s big efforts that would

control the hazardous side- substances causing the

ozone layer depletion and thereby improve the nature

and thereby human life, which would ultimately lead to

their benefit. Which means the prosperity for the

living species in the nature.

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