

## ‘Please help save the world.’

The call from all generations was clear: ‘Please help save the world’, as the biggest climate change summit in history COP15, opened in Copenhagen on December 7<sup>th</sup> 2009.



All around the world, global warming has become an international problem which if, all generations won't act together, will cause disasters and hazards across the world. The results of this have already been seen; ice caps are melting and causing sea levels to rise, temperatures have risen and weather hazards and annual amounts of rainfall have increased.

The main causes of global warming; which is the rising of the average temperature of Earth's near-surface air and ocean since the mid-20<sup>th</sup> century and its projected continuation, are the greenhouse effect and oz-zone depletion.

As the surface warms, heat energy reflects back towards space; meanwhile, gases in the atmosphere absorb some of this energy and reradiate it near the surface. This is often called the greenhouse effect, named for the way heat increases inside a glass enclosure. In the greenhouse effect around Earth, the atmosphere can be visualized as a blanket that is made thicker by the action of a small amount of water vapour, carbon dioxide, methane, ozone, nitrous oxide, other gases, and soot; it thus holds in more heat, forcing air temperature higher.

O-zone gas, on the other hand, is a gas that acts as a shield around the Earth, reflecting back incoming solar energy back to space, letting in a few of the rays to pass through Earth. With the increase in aerosols sprays and other known gases such as carbon dioxide, these gases are attacking the o-zone layer, causing small 'holes' which let in more of the sun's rays to reach the Earth, thus causing global warming.

The COP15 World Conference suggested reasons on how to stop global warming. This summit also wanted to build an effective global carbon market. Professors and scientists around the world and members from the United Nations discussed on how to cut carbon emissions by the years 2020-2050. Despite widely held expectations that the Copenhagen summit would produce a legally binding treaty, the conference was plagued by a negotiating deadlock and the “Copenhagen Accord” was not legally enforced.

The World Business Council for Sustainable Development had called on targets, suggesting that it is necessary to cut emissions by 60-80% from current levels by 2050.

Greenpeace, in its last study, estimates that using a little more than 10% of the territory of the Spanish State, which is not used at present, in the year 2050 also, could generate all the necessary energy to keep the rythm of present life using clean energies; thermosolar, wind and photovoltaic, with the help of other alternative forms of energy, which can benefit deeply to our environment and to climate change.

Processes which are caused by man which are affecting the state of climate change, include deforestation, reforestation, desertification and urbanisation.

*“The overwhelming majority of studies of regional climate effects on terrestrial species reveal consistent responses to warming trends, including pole ward and elevational range shifts of flora and fauna. Responses of terrestrial species to warming across the Northern Hemisphere are well documented by changes in the timing of growth stages (i.e., phenological changes), especially the earlier onset of spring events, migration, and lengthening of the growing season.” (IPCC, 2007).*

## **The Effects of Climate Change**

Climate change and global warming will have several effects on ecosystems, biodiversity, agriculture and food supply, and also on water resources and coastal zones and sea level rise.

In various regions across the world, some high-altitude and high-latitude ecosystems have already been affected by climate change. The Intergovernmental Panel on Climate

Change concluded that 20% to 30% of species may be at risk of extinction from climate change impacts.

It is also to be noted that agriculture around the world is highly sensitive to climate variability and extreme weather conditions, such as droughts, floods and severe storms. These conditions have already posed difficulty on farmers. The enduring changes in temperature and climate and soil moisture could make it less feasible to continue crop production in certain areas or regions.

*“Recent studies indicate that increased frequency of heat stress, droughts and floods negatively affect crop yields and livestock beyond the impacts of mean climate change, creating the possibility for surprises, with impacts that are larger, and occurring earlier, than predicted using changes in mean variables alone. This is especially the case for subsistence sectors at low latitudes. Climate variability and change also modify the risks of fires, pest and pathogen outbreak, negatively affecting food, fiber and forestry.”*

*IPCC 2007*

## **Conclusion**

Possible solutions to stop climate change are to stop the use of fossil fuels for energy and to promote renewable energy sources like hydro-electricity and solar power, and that developing countries must make cuts of 40% of their 1990 carbon emissions, as it was seen in the Copenhagen Climate Change Conference, by 2020.

Climate change is an international problem that has various causes and effects, however, carbon emissions and considerable gases can be reduced with all countries playing their role as a community to stop global warming and to save and benefit the environment and our planet.

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