

**Emma Ferraresi for:**

## **CLIMATE CHANGE**

I am here to talk to you today about Climate Change and of course Global Warming that is directly linked to Climate Change. As the word "global warming" states, this is a global phenomenon so no area of Earth is left untouched by its influence. I will explain to you the causes of Global Warming, the negative effects it has on our lives and what we need to do to reduce Global Warming so that we can help to try and save our planet.

The Earth is a beautiful, habitable planet that is unique in our solar system and has gone through many various phases of evolution over millions of years - including the Ice Age, the extinction of dinosaurs, terrible diseases and natural disasters. The Earth and us humans have survived these huge challenges but today we are facing an even more difficult and frightening situation.

My objective today is to shock you because global warming is a process that we do not know much about and if we cannot stop it life on planet Earth will seriously be put at risk.

### **SO WHAT ARE THE CAUSES?**

The main causes of Global Warming, that directly affect Climate Change, are:

- The Enhanced Greenhouse Affect
- Deforestation

### **What is this Greenhouse Affect?**

First of all, the Earth is surrounded by a fragile and precious film called the atmosphere. This is mainly composed of nitrogen and oxygen. So between the atmosphere and the Earth's surface there is an important, necessary and specially balanced emission of gases. The function of these gases is to absorb the infrared radiation emitted by the Sun and re-emit the heat generated towards the Earth and therefore providing the correct level of heat. More than a half of this heat is absorbed by the Earth, which uses it to heat itself while a small part escapes into space.

Secondly, the other element in the equation is the Sun that is the Earth's power source. The useful Greenhouse gases let in the Sun's heat and retain heat necessary for life on Earth.

Life on Earth is therefore the result of a balance of Nature. The balance of Greenhouse gases has meant that our planet is heated in a balanced way and creates the optimum conditions for the development of life.

This balance is very delicate, however, so if something changes, if any Greenhouse gases vary, the concentration of greenhouse gases is altered and causes heating in excess.

The greenhouse effect is therefore a natural necessity for the very life of the planet and our lives.

## **So what has gone wrong?**

The main greenhouse gas is water vapor and human activities cannot do much to increase it or control it.

The second is carbon dioxide and this is the main cause of global warming.

Whenever man lights a fire, or burns oil, gasoline, methane, carbon etc a gas is produced.

Carbon dioxide is a gas in fact that has increased tremendously due to human activities. From the graph you can see the sharp increase in carbon dioxide over the past 60 years.

Another greenhouse gas is naturally occurring methane, this very powerful gas develops in the cultivation of cattle, rice paddies, the losses of gas pipelines and again, human activities have increased its concentration.

## **Deforestation**

Trees are a very important part of the conversion of CO<sub>2</sub> into oxygen. So deforestation reduces dramatically the number of trees in the world and therefore increases the amount of CO<sub>2</sub> in the atmosphere. This means an increase in Global Warming.

## **WHAT ARE THE EFFECTS?**

The main effects are the following:

- An increase in the Earth's temperature: the Earth's temperature has risen about 0.5 degrees Celsius (1 degree Fahrenheit) over the past century. It may seem a very small difference, but it's causing very big problems. If we continue to emit these gases and deforest, the temperature could rise between 1 to 5 degrees Celsius (approximately).
- An increase in sea levels: - during the past 100 years sea levels have risen 10 to 20 cm (4 to 8 inches) and because of the ice melting it will rise even more and flood the coasts of many countries around the world and this could cause the deaths of millions of people.
- Global warming also causes damaging storms, droughts and related weather phenomena that cause an increase in economic and health problems. Warmer weather provides breeding grounds for insects such as malaria-carrying mosquitoes.

There is a long list of other effects that overall will have and are having a very negative affect on our planet Earth and on all of us.

As you can see all of them are very negative for the Earth and all the people and animals who live here.

## **SO WHAT ARE THE SOLUTIONS?**

Now that we have listed the effects it is very important to find solutions to eliminating or partially reducing the negative impact of these effects.

- The first thing we can do is reduce energy waste by reducing the amount of emissions of CO<sub>2</sub>.

This can be done in many different ways, such as burning less fossil fuels, reducing deforestation and using instead renewable energy such as solar power and wind power. With solar panels you avoid emitting in the atmosphere 3-4 Tons of CO<sub>2</sub> each year per house.

In our own small way we can save energy consumption by :

- turning off the lights in the house when not needed,
- use energy-saving lightbulbs,
- a thermostat for the heating
- and of course solar panels on the roof of the house.

In addition to this we should also eat fruit and vegetables that are grown locally so that there is less need for transport.

We should try to walk or cycle to places close by or take a public transport in order to avoid using the car.

- Putting the cover on the pot while cooking.
- You can also drink water from the tap instead of buying bottled water.
- Do not let the stand by of the tv or the pc on and don't leave the battery charger in the socket when you have finished charging the device.
- Eat less meat, because cows emit methane, a very powerful greenhouse gas. Even though methane is less than CO<sub>2</sub> on the Earth, it's more powerful than CO<sub>2</sub>.
- Never leave the heating on while having your windows open: it's a huge wasteful use of money and of energy.

On the 22nd March of every year people celebrate all over the world, World Water Day: an occasion to take care of water at school, in the community, at work... Waste water = waste energy.

So finally I would say that each of us must try to contribute to reducing CO<sub>2</sub> emissions.

## **SO TO CONCLUDE,**

Global Warming must be stopped as soon as possible as otherwise it will have very serious consequences for all of us. This may sound exaggerated but many studies, by NASA and other important scientists, have unfortunately confirmed this negative trend.

We must all work together to find ways to reduce the emission of unnecessary CO<sub>2</sub> and the first place to start is at home and then promote this way of living in the community and hopefully then this will cause governments to reconsider its ways.

**Remember: We do not inherit this Earth from our ancestors; we borrow it from our Children.**

Thank you.  
Emma Ferraresi

