

# **Global Warming**

## **What is Global Warming?**

Everybody is talking about “climate change “and “Global Warming “. But what is Global warming actually?

Over the last 100 years, the average temperature of the air near the Earth’s surface has risen a little less than 1 Degree Celsius. Does not seem all that much? It’s responsible for the remarkable increase in storms, floods and intense forest fires we had seen in the last ten years, thought, say scientists.

Their data show that an increase of 1 Degree Celsius makes the Earth warmer now that it has been for at least a thousand years.

Earth should be in cool – down – period. But it’s not only how much the Earth is warming, it’s also about how fast it’s warming. There have always been natural climate changes. Ice Ages and the warm intermediate time between them, but those evolved over periods of 50.000 to 100.000 years.

A temperature rise as fast as we have the one we have seen over the last 30 years have never happen before, as far as scientists can ascertain.

Moreover, normally the Earth should now be in a cool – down – period, according to natural effects like solar cycles and volcano activity, not in a heating – up phase.

## **Earth Temperature**

- The temperature of the earth is directly related to the energy input from the Sun. Some of the Sun’s energy is reflected by clouds. Other is reflected by ice. The remainder is absorbed by the earth.
- If amount of solar energy absorbed by the earth is equal to the amount radiated back into space, the earth remains at a constant temperature.
- However, if the amount of solar energy is greater than the amount radiated, then the earth heats up.
- If the amount of solar energy is less than the amount radiated, then the earth cools down.

## **What is more?**

### **Natural Greenhouse Gases like: Carbon Dioxide Methane & Nitrous Oxide.**

Have always been in the Atmosphere. Without them, the World’s average surface temperature would be a chilly 18 degrees Celsius. Thanks to the Greenhouse effects, however, we enjoy an average temperature of 14 degrees.

## **What is the Greenhouse?**

To a certain degree, the earth acts like a greenhouse. Energy from the Sun penetrates the glass of a greenhouse and warms the air and objects within the greenhouse. The same glass slows the heat from escaping, resulting in much higher temperatures within the greenhouse than outside it.

The Greenhouse effect is the rise in temperature that the Earth experiences because certain gases in the atmosphere [Water Vapor, carbon Dioxide, Nitrous oxide & Methane, for ex.] trap energy from the sun. Without these gases, heat would escape back into Space and Earth’s average temperature would be about 60 degrees Fahrenheit colder. Because of how they warm our world, these gases are referred to us Greenhouse gases.

The Greenhouse effect is important. Without the Greenhouse effect, the Earth would not be warm enough for humans to live, but if the Greenhouse becomes stronger, it could make the Earth warmer than usual. Even a little extra warming may cause problems for humans, plants & animals.

■ A dramatic example of the Greenhouse effect can be seen with the planet Venus. Venus's atmosphere consists of 97% carbon dioxide and 3% nitrogen. In addition, the surface is covered by dense clouds of water and sulfuric acid. The combination of greenhouse gases results in a surface temperature of 860°F – even hotter than the planet Mercury, which is nearest the Sun.

### **It's Time to Start Treating it Right !**

Climate Change may be a big Problem, but there are many little things we can do to make a difference. If we try, most of us can do our part to reduce the amount of Greenhouse gases. That we put into the atmosphere. Many Greenhouse gases come from things we do everyday.

- Let's take for example: Every Lebanese Citizens produces roughly a kilogram of solid garbage every day (around 1.6 Million Metric Tons annually) or 4 Millions Kgs. a year and the vast majority of that is dumped or buried in landfills.
- On an individual level, it is sometimes difficult to see how one person can make a difference in a field as wide & complex as the environment.
- Households can help decrease the amounts of Garbage they produce by being conscientious about they throw away – never throw away anything that could be used.
- Driving car or using Electricity is not wrong. We just have to be smart about it, for a example ( one walking day, using bus transportation, Solar Energy )

### **Impacts of Warming :**

#### **1. Melting ice, glaciers and permafrost**

With these temperature increases, one main question is whether the ice sheets of Antarctica and Greenland are melting. The Gravity measured by satellite found melting equivalent to sea level rise of 0.4 mm/year.

#### **2. Animals at Risk**

- Rising temperatures
- Shrinking habitat
- Food harder to get
- Expanding diseases
- Competition

#### **3. Wetlands and forests**

- Open areas decreased by 34%
- Wet areas decreased by 88%
- Water and lakes decreased by 14%
- Warmer winters
- Reduced snow cover
- Over 25% of forests is burned

#### **4. Weather and Storms**

- Erosion rates increased from 6.8 meters to 13.6 m/yr
- Three North American Aerospace Defense Command early-warning radar sites in Alaska to be shut down due, in part, to erosion caused by climate change.

#### **5. People and culture**

- All of these villages have lost people on the ice. When you have a small village of 300 or 400 people, losing three or four of their senior hunters, it's a big loss. A lot of the elders will no longer go out on the sea ice because their knowledge will not work anymore. What they've learned and passed on for 5,000 years is no longer functional.”
- Due to unusual ice conditions, one of our young local hunters lost his life, which has not occurred in our community in my lifetime.”
- “Climate change is occurring faster than people can adapt. [It] is strongly affecting people in many communities, in some cases threatening their cultural survival.”

### **TOP 20 THINGS TO DO TO STOP GLOBAL WARMING :**

1. Walk, bike, ride public transit, or carpool.
2. Lower your water heater and home thermostats
3. Only run your dishwasher with full loads
4. Reduce your shower length and temperature
5. Unplug appliances not in use
6. Turn off lights when leaving a room
7. Use recycled paper
8. Clean or Replace Filters on you're A/C.
9. Replace your old single glazed windows with double glazing.
10. Choose Products that come with little packaging & buy refills when you can.
11. Plant a tree.
12. Switch to Green Power. ( Energy Solar )
13. Buy Organic foods as much as possible.
14. Try Telecommuting from Home.
15. Fly Less as possible.
16. Encourage the switch to renewable Energy.
17. Protect & conserve Forest Worldwide.
18. When buy a new Car, choose a more fuel efficient vehicle.
19. Replace regular light lamps by a compact fluorescent light bulb.
20. Keep your Car Tuned up. ( Maintenance )

### **Conclusion**

- Global warming *is* happening
- Most of the warming is probably the result of human activities
- There will be positive but mostly negative repercussions from Global Warming.
- There is no reason, at this point, to despair about environment.
- It's not yet in crisis.
- But think about Future Generations: Wouldn't u want them to Grow up in a world as beautiful as the one you lived in as a child?