CAUSES/IMPACTS/PREVENCTION AND REDUCTION OF GLOBAL WARMING-FOSSIL FUELS

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Causes of pollution

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- The causes of pollution are cars, factories, homes, and power plants that burn fossil fuels such as oil, coal, natural gas, and gasoline to
- produce electricity. The gases that pollute the most are carbon dioxide, methane and nitrous oxide.
- Carbon dioxide is the largest source of emissions. Electricity production is the single biggest generator of carbon dioxide emissions
- followed by transportation and industry. Carbon dioxide is also emitted naturally by animal and plant respiration, including humans.
- Methane emissions come from a number of human sources such as coal mining, landfills, natural gas and petroleum production,
- wastewater treatment and even rice cultivation. Livestock also emits methane.
- Nitrous oxide is contained naturally in soil can be released by agricultural activities, human sewage, livestock manure and adipic acid
- production.
- We are also, indirectly, one of the causes when buying products that have been produced and transported using fossil fuels.

IMPACTS OF GLOBAL WARMING

WHAT IS

global warming

Global warming is the term used to describe the increase in the average temperature of the Earth's atmosphere and oceans over time.

Maintaining the Earth's temperature around average values suitable for human life is mainly due to four factors:

- inner heat of the planet;
- solar radiation, which provides energy for the greenhouse effect;
- presence of the atmosphere, which mitigates daily and seasonal temperature fluctuations;
- effect, which amplifies the thermal effect of solar radiation.

The alteration of these parameters is the cause of global warming.

Man, by burning fossil fuels such as coal, gas and oil and destroying forests, is dramatically increasing the amount of carbon dioxide (also known as carbon dioxide or carbon dioxide) in the Earth's atmosphere. This causes an increase in the greenhouse effect and a consequent rise in temperatures.

Most scientists agree on the real warming of the globe as a result of human activities and not just as a natural fact.

EFFECTS OF global warming

Global warming is unfortunately a reality and is already causing impacts and phenomena of frequency and intensity never seen in human history and with them suffering, loss of life, upheaval of ecosystems and the wealth of biodiversity that sustain our lives.

We already see numerous changes for example:

- glaciers melt;
- plants and animals are forced into their habitats;
- drought-affected areas are increasing;
- the number of Category 4 and 5 hurricanes has doubled in the last 30 years;
- malaria has reached the highest altitudes, as in the Colombian Andes, at over 2000 meters above sea level;
- Greenland's glacier melting has more than doubled in the last decade;
- at least 279 species of plants and animals are responding to global warming as they approach the poles.

DISASTERS ANNOUNCED

If warming continues, further and more catastrophic effects will be:

- deaths caused by global warming will double in just 25 years;
- ocean levels could rise more than 6 metres with the loss of some of the Greenland and Antarctic ice, and the devastation of coastal areas around the world;
- Storms and hurricanes will increase in number and intensity
- heat waves will be more frequent and more intense;
- there will be more frequent droughts and fires, with destructive effects;
- Arctic ice cap could melt by summer 2050;
- more than a million living species worldwide will be at risk of extinction.

These phenomena will impact millions of people, with even greater effects on those living in the most vulnerable and poor areas of the world, will damage food production and threaten vital species, habitats and ecosystems. The resulting climate change will have extremely significant implications for human health and environmental integrity. Climate strongly influences agriculture, water availability, biodiversity, energy demand (e.g. for heating or cooling) and the economy itself.

CONSEQUENCES ON HUMAN HEALTH - indirect effects -

Rising temperatures due to global warming caused by the increase in the concentration of greenhouse gases in the atmosphere can have both direct and indirect effects on human health.

Extremely hot temperatures increase the physical risks of people with heart problems. The warmer climate would also lead to a higher frequency of heat strokes and an increase in the spread of respiratory problems.

Higher temperatures also increase the concentration of ozone at ground level, encouraging its formation. Statistics on mortality and hospital admissions clearly show that the frequency of deaths increases on particularly hot days, particularly among very old people and asthma sufferers.

In every place on Earth, the presence and spread of diseases are strongly influenced by the local climate. In fact, many life-threatening infectious diseases are only spread in the hottest areas of the planet. Diseases such as malaria, dengue fever, yellow fever and encephalitis could increase their spread if the mosquitoes and other insects that spread them found climatic conditions more conducive to their spread.

Higher temperatures can also promote increased biological water pollution, encouraging the proliferation of various pests.

It should not be forgotten that many studies have shown that climate also affects everyday social life: when the temperature rises, for example, aggression increases and human conflicts are more likely to arise, from civil wars to murders.

CONSEQUENCES ON HUMAN HEALTH - indirect effects -

Climate change will have radical effects on human health. Health depends on several factors: water, cleaning, food, health care, infectious disease control. All factors closely related to climate:

- By reducing drinking water supplies, climate change will endanger aquifer resources and water health. Concentrations of bacteria and other microorganisms are the basis of many of the new epidemics in Africa, India, Southeast Asia. In addition, water scarcity obliges people to use other low-quality and often at-risk ones, such as those of often contaminated rivers. The result is the increase in dysentery, infectious diseases, blindness and other serious diseases.
- Heat waves, floods, cyclones and droughts cause death and disease, migrations of entire populations, epidemics and very serious psychological problems.
- Too much rain or too much heat put any kind of crop at risk, causing malnutrition famine, with long-term devastating health consequences, especially in children.
- High temperatures alter the geographical distribution of species and facilitate disease transmission.
- Warming of the seas will also affect our health. Many studies confirm the correlation between the increase in cholera cases and the increase in temperature in the waters of the Bay of Bengal. As well as those that confirm the cause-and-effect process between El Nino and the malaria and dengue epidemics. The growth of marine pathogens puts the marine animal world at risk

Global warming and economy

- □ In addition to the costs of coping with the global effects of global warming, it is also interesting to look at further consequences for the economy.
- Rising temperatures will undermine the global economy, not just that of poor countries. For the first time, a team of economists estimates the losses of global warming in high-income populations. Because there is no escape for them too: when it gets hotter, productivity is reduced.
- **So:**
- while global warming will increase inequalities between rich and poor countries in a rather simple pattern: the extra grades, in fact, can be a boon for the colder countries of the North, which are generally those with a more prosperous and service-centered economy rather than agriculture, while representing a difficulty for warmer regions that are also the poorest.
- □ It is also true that, as American economists have been able to verify, there is a reduction in revenue in periods of too hot or too cold. In fact, there is an optimal temperature, the researchers explain, to which humans, just like animals and plants, are particularly productive. After that threshold, they become less operational and the revenues of individual companies begin to decrease with consequences for the economy of the entire country.

Prevention and Earth Day

Prevention

- Renewable energy
- Ecofriendly
- Electrical cars

Renewable energy

• Renewable energies are energies which will always be renewable and that come from renewable resources

• Solar energy, wind energy, hydropower, geothermical power

Benefits of renewable energy

- Less probability of significant and harmful impacts.
- Less global warming emissions

• Life cycle costs and public health effects of coal to be an estimated \$74.6 billion every year. Negative health impacts come from air and water pollution that clean energy technologies simply don't produce. Wind, solar, and hydroelectric systems generate electricity with no associated air pollution emissions.

• Wind and solar energy require essentially no water to operate and they do not pollute water resources or strain supplies by competing with agriculture, drinking water, or other important water needs. In contrast, fossil fuels can have a significant impact on water resources. Coal mining and natural gas drilling can pollute sources of drinking water.

Why less emissions of CO2

• Burning natural gas releases between 0.6 and 2 pounds of carbon dioxide equivalent per kilowatt-hour

- coal emits between 1.4 and 3.6 pounds of CO₂E/kWh
- Wind only 0.02 to 0.04 pounds of CO2E/kWh
- Solar 0.07 to 0.2
- Geothermal 0.1 to 0.2
- Hydroelectric between 0.1 and 0.5.

Eco friendly

Why?

- Protection of our home
- Like this we don't pollute our earth with fossil fuels

How?

- Less car journeys
- renewable energy
- use less energy and heating in home

Eco friendly benefits

- Save Energy
- Less cost
- Improves Environment
- Saves Water
- Improves Health
- Improves Mental Health
- Saves Material
- Saves Environment

Electrical vehicles benefits

• Less pollution: Reduce of harmful air pollution from exhaust emissions. An EV has zero exhaust emissions.

- Renewable energy: The use of renewable energy to recharge the EV, can reduce greenhouse gas emissions
- Eco-friendly materials: more eco-friendly production and materials for EVs
- Health benefits: Better air quality will lead to less health problems and costs caused by air pollution. EVs are also quieter than petrol/diesel vehicles, which means less noise pollution.
- Safety improvements: EVs tend to have a lower centre of gravity that makes them less likely to roll over. They can also have a lower risk for major fires or explosions and the body construction and durability of EVs may make them safer in a collision.
- Reduce/eliminate fuel costs: Not only is electricity less expensive than gasoline, it also has a much more stable price point, meaning that rapid price swings are all but eliminated by going electric. It is possible to install a rooftop solar installation to charge the electric vehicle. This eliminates costs and time waiting at the fuel station.

• Electric vehicles can be fueled by electricity from renewable sources, such as wind, hydropower, and solar, while gasoline can only be produced through intensive extraction and transportation processes like this increasing CO₂ and pollution. Electric vehicles are also built to be more environmentally friendly than conventional vehicles, as the large battery inside your electric car can be recycled. By choosing an electric car, we can reduce our carbon footprint and pollution impact to help preserve our natural environment.

Earth Day

• Earth Day is an annual event celebrated around the world on April 22 to demonstrate support for environmental protection. First celebrated in 1970, it now includes events coordinated globally by the Earth Day Network, in more than 193 countries. In 1969 at a UNESCO Conference in San Francisco, peace activist John McConnell proposed a day to honor the Earth and the concept of peace, to first be celebrated on March 21, 1970. A month later a United States Senator Gaylord Nelson proposed the idea to hold a nationwide environmental teach-in on April 22, 1970

• Earth Day Network's mission is to diversify, educate and activate the environmental movement worldwide. Growing out of the first Earth Day in 1970, Earth Day Network is the world's largest recruiter to the environmental movement, working with more than 75,000 partners in over 190 countries to drive positive action for our planet.

REDUCTION OF POLLUTION

• 1. Reduce the number of trips you take in your car.

- According to the EPA, motor vehicles collectively cause 75 percent of carbon monoxide pollution in the U.S. The Environmental Defense Fund (EDF) estimates that on-road

vehicles cause one-third of the air pollution that produces smog in the U.S., and transportation

causes 27 percent of greenhouse gas emissions.

• 2. Reduce or eliminate fireplace and wood stove use.

- The smoke produced from wood stoves and fireplaces contains over 100 different chemical compounds, many of which are harmful and potentially carcinogenic. Wood smoke

pollutants include fine particulates, nitrogen oxides, sulfur oxides, carbon monoxide, volatile

organic compounds, dioxins, and furans.

REDUCTION OF POLLUTION

• 3. Avoid burning leaves, trash, and other materials.

- Trash burning around the globe is worsening air pollution, pumping more emissions

into the atmosphere than previously thought, according to a new study.

They found that approximately 1.1 billion tons, or 41 percent, of the world's waste is disposed of

through unregulated burning every year.

• 4. Avoid using gas-powered lawn and garden equipment.

- Gasoline-powered lawn and garden equipment emit air pollutants such as carbon

dioxide, carbon monoxide, hydrocarbons, volatile organic compounds, nitrogen oxides and

particulate matter. Every time you fill your gas can and mower, you are emitting volatile organic

compounds into the air.

What can we do about ocean plastic pollution?

- 1) Reduce Your Use of Single-Use Plastics.
- 2) Recycle Properly.
- 3) Participate In (or Organize) a Beach or River Cleanup.
- 4) Support Bans.
- 5) Avoid Products Containing Microbeads.
- 6) Spread the Word.
- 7) Support Organizations Addressing Plastic Pollution.

What can I do to reduce pollution?

- 1) properly dispose of all waste; don't dump chemicals down drains or on the ground.
- 2) test underground fuel oil tanks for leaks; if possible, replace them above ground.
- 3) safely store all chemicals and fuels.
- 4) minimize the use of chemicals; always use according to directions.

At home:

- properly dispose of all waste
- ensure proper waste water discharge connections; if possible, eliminate floor drains
- properly use and maintain on-site septic systems
- plug and cover waste dumpsters

• The faster and easier way to reduce pollution is responsible and sensitize all the people, because together we can save our planet.