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# Ecosystems in the world need some oxygen

The environment suffers from the consequences of our actions and we do not take efficient measures to prevent it. Between the main affectations, we have the emissions of greenhouse gases, which increased over the last three years

The melting of glaciers and the warming seas are some of the effects caused by the emission of greenhouse gases so, in the framework of the World Environment Day, CMT urges the citizens and the governments to make efforts to reduce those emissions. Through the installation of solar heaters, CMT avoids the emission of 7.5 million tons of CO2 in the upcoming 20 years.

very 3 seconds, the world loses a forest surface similar in size to a soccer field, and only in the last century, half of the wetlands in the world were destroyed; as mentioned in the United Nations Environment Program (UNEP).

"For a long time, we have exploited and destroyed the ecosystems in our planet. 50 percent of our coral reefs is lost, and by the year 2050, 90 percent of it could disappear; even if global warming increases only 1.5°C", the international organization explains.

June 5 was established by the United Nations (UN) as the World Environment Day, and in 2021 it will be focused on ecosystems restoration with the theme Generation Restoration: "Reimagine, recreate, and restore".

The loss of ecosystems is depriving the world from carbon sinks, like forests and peatlands, in a moment when humanity should not allow that. The emission of greenhouse gases increased for three consecutive years and the planet is just one step from a potentially catastrophic climate change.

COVID-19 also showed us how catastrophic the consequences of losing ecosystems could be. By reducing the areas of natural habitats for animals, we created the ideal conditions for developing and spreading pathogens, including coronaviruses.

"Restoring ecosystems means preventing, stopping, and reversing the damage we caused; stop exploiting nature, and start healing it", UNEP emphasizes.

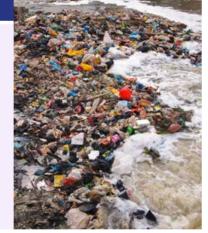
#### To take into consideration

Every year we lose more than 4.7 million hectares of forest, a surface bigger that Denmark.

Almost 80 percent of wastewaters in the world are led to the oceans without any previous sewage treatment.

Wetlands are drained for agricultural purposes, which causes the loss of approximately 87 percent of the total number in the world in the past 300 years.

Peatlands, which are found in more than 180 countries, are powerful vital ecosystems. Even when they cover only 3 percent of the earth surface, they are able to store almost 30% of the carbon in the soil.



#### Emissions of CO2, a threat for the environment

Mexico, responsible for 1.3 percent of the carbon dioxide emissions (CO2) in the world, is ranked in the 13th position according to data collected by the European Commission, which highlights that this is one of the gases that causes the greenhouse effect, an important thing to consider in case we want to keep life in the way we currently know it.

Nevertheless, after the levels of industrialization presented in the world over the last century, the level of CO<sub>2</sub> in the atmosphere caused by human intervention is equivalent to two thirds, as a result of burning fossil fuels mainly, which represents a severe pollution to the environment.

#### Consequences of the CO2 emissions



#### **Pollution**:

The temperature on the surface of the atmosphere has suffered a progressive warming since the beginning of the industrial era, the increase was higher in specific areas such as the poles or the Mediterranean Arc



#### **Contamination:**

Currently, the transportation and construction industries cause more than 70 percent of emissions, and the increase of this gas not only increases the greenhouse effect, but also the temperature in the world.



#### **Greenhouse effect:**

The raise on the temperature causes multiple effects on the earth's ecosystem. The melting of glaciers, torrential rains, and warming seas are some of the most dangerous effects.



It is important to mention that according to the European Commission, China is the country that produces the most CO2 emissions, being responsible for 30.3 percent of the total emissions produced in 2019. The most dangerous fact is the increase of 2 percent this year compared to 2015.

USA is the second country with the highest CO2 emissions with 13.4 percent, even when it decreased by -0.7 percent compared to 2015. The European Union and Ukraine contribute 8.7 percent of the emissions of this gas, which decreased by 1.4 percent compared to the levels produced five years ago.

Mexico is the thirteenth country on the list of CO2 producers, with 1.3 percent of the total, even when it showed a reduction in 2019 compared to the previous years, which makes a 1.6 percent, and 0.3 percent compared to 2015.

### **Countries in CO2 emissions**

Country	Global rate	Changes between 2018-2019	Annual average changes between 2015 and 2019
China	30.3%	3.4%	2.0%
USA	13.4%	-2.6%	-0.7%
European Union	8.7%	-3.8%	-1.4%
India	6.8%	1.6%	3.2%
Russia	4.7%	-0.8%	0.9%
Mexico (13th position)	1.3%	-1.6%	-0.3%

## CMT and our partners have provided 172 thousand solar heaters in five years

In accordance with the National Association of Solar Energy (ANES), if we installed in Mexico five million square meters of solar heaters, in less than 10 years the use of LP gas would decrease on 15 million tons, which also would avoid the emission of almost 30 million tons of CO2 to the atmosphere.

Congregación Mariana Trinitaria, A.C. (CMT) through its Welfare Ecosystem Model, its Network of Energy; as well as the collaboration with citizens, the three levels in the government, and civil associations; were responsible for installing 172 thousand solar heaters over the last five years.

Considering the fact that each basic solar heater measures one square meter, and based on data collected by ANES, we can mention that we have installed 172 thousand square meters of solar heaters. That will contribute to saving 3.75 million tons of LP gas in the following 20 years, which represents a reduction of 7.5 million CO2 tons in the same period.

CMT promotes actions to protect the environment because our objective is to foster health in people, so we are aware that contaminated habitats do not contribute to reaching our objective.

We must take into consideration that Mexico produces 91 percent of the energy from fossil fuels like carbon, gas, and oil. This dependence on fossil fuels causes a deterioration on the quality of air, pollution of rivers, seas, and soils; and also, they are responsible for global climate change, as mentioned in a research developed by the Universidad Nacional Autónoma de México (UNAM).

Durango, Veracruz, Zacatecas, Guanajuato, Michoacán, Tlaxcala, Chihuahua, and Oaxaca are some of the states where CMT has delivered solar heaters to citizens, specifically to vulnerable families, and by doing so we also contributed to their economic savings.



