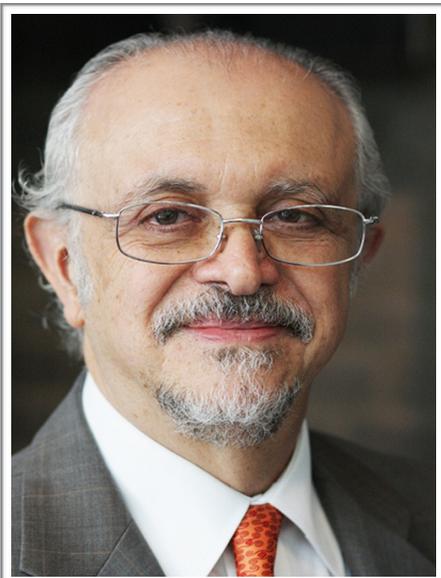


## SOME THOUGHTS ON MARIO MOLINA'S CONFERENCE SEPTEMBER 2018

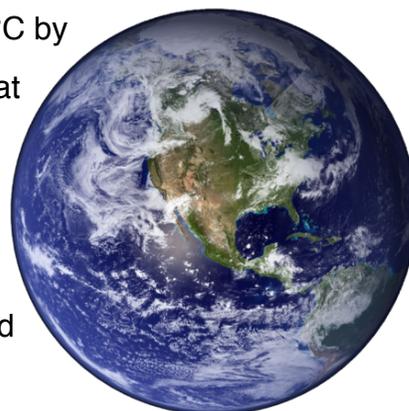


Mario Molina Pasquel

A few days ago, at the Mexican Chamber of the Construction Industry we had the privilege of having Mario Molina Pasquel amongst us. Mario is a Nobel Laureate, having won the 1995 Nobel Prize for Chemistry (jointly with his colleagues Crutzen and Rowland) for research on gases that deplete the ozone layer. Below I would like to share with you some of the notes that I took during his address to us.

The climate of our planet is a complex system. We are able to retain  $\frac{2}{3}$  of the sun's energy that reaches us, which would produce an average temperature of  $-18^{\circ}\text{C}$ . However, because of the greenhouse gas effect, it is possible to keep the average temperature of the Earth at around  $15^{\circ}\text{C}$ . Because of the industrial revolution, the level of  $\text{CO}_2$  emissions rose drastically, having an impact on the chemical composition of our atmosphere. As a result, our atmosphere retains more energy and, consequently, the average temperature of the planet has increased by  $1^{\circ}\text{C}$  in the past few years.

That rise in temperature is reflected in extreme natural phenomena the likes of floods, droughts, cyclones, hurricanes and heat waves, amongst others. Should that trend continue, the Earth's temperature could increase by an average of 3 to  $6^{\circ}\text{C}$  by the year 2100. Nonetheless thanks to the Paris Agreement that was signed and ratified in 2016, countries committed to work toward keeping the increase in global average temperature to well below  $2^{\circ}\text{C}$  above pre-industrial levels; to aim to limit the increase to  $1.5^{\circ}\text{C}$ , since this would significantly reduce risks and the impacts of climate change.



Hearing Dr. Molina speak was very inspiring. Not only did he raise the Climate Change issue, but he also reminded us of the opportunities available to prevent the global warming trend from continuing. Here are a few examples of those opportunities:



- Achieving energy savings and efficiencies
- Better use of solar and wind energy, both of which have increasingly competitive technologies and pricing.
- Reforestation
- Continuing to close the hole in the ozone layer, by no longer using chlorofluorocarbons or CFCs

Science and technology continue to advance, but it is inter-disciplinary and team work that enables us to use that progress to solve real problems to the greater good of society. Ethics and policies are the regulators of scientific applications. And therein lays the responsibility incumbent upon all of us to improve the living conditions of this and future generations.

