

Nobel Laureate Dr. Mario Molina

University of California, San Diego, and Scripps Institution of Oceanography

Global climate change is already a reality. We are seeing it with all types of measurements. For example, the average temperature of the planet's surface has risen already by 0.8°C, or 1.5°F; it's something that is already happening. And we have already started a whole series of climate changes: frequency of floods, droughts, heat waves. It is a reality.

Climate change has caused the temperature to rise all over the planet. It doesn't seem a very big increase: 1.5°F, but what concerns us is how this is mainly reflected on the so called climate extremes. For example, we have more intense rain which is why the frequency of floods has increased, clearly, in every continent. We also have heat waves. There are other effects like droughts. Moreover, the sea level is rising and this can be measured, with the ice sheet melting during the Arctic summer.

The climate change science is very well established. The scientific community is already in agreement. It's an extraordinary consensus, supported by most scientific organizations like science academies of many countries and professional organizations, so this is a reflection of that extraordinary consensus on the scientific part of climate change.

Our main concern with climate change is that it is being caused, mainly by gases such as carbon dioxide which remains in the atmosphere for many years; parts of those emissions remain behind for over a millennium. This shows that it can build up, but as we are seeing these worrying changes, it is important that we start acting because the longer we take to act the bigger the risk of unexpected, abrupt changes that could have disastrous consequences for humanity.

There are many measures that can be taken to face climate change. There's not one single answer. For example, instead of using white hot light bulbs, we could use LED or fluorescent light bulbs, which use a lot less energy. We also need to reduce carbon dioxide emissions, mainly coming from the burning of fossil fuels; and deforestation also complicates this problem. But we can do all this and the cost to take any necessary measures to have an efficient reduction –for example, the average temperature not climbing beyond 2°C—is a consensus of the community. To do this, measures that appear to be drastic, need to be taken. Economists have studied this and they agree that the cost is a moderate one: only 1 or 2% of the world's GDP, gross domestic product. It might seem like a lot of money, but it's much less than the cost of the impacts [of climate change] that we are already experiencing.

As part of the population and with the responsibility they have to future generations, as everyone else, Latino families should be very concerned. Particularly, many of the countries where our Latino families come from are very vulnerable. For example, Mexico, which has widespread coastal zones, is very vulnerable. For other Latin American countries that are closer to the tropics, the vulnerability is very clear. Many Hispanics here in the U.S. live in cities that are very vulnerable; for example, Florida. If the sea level really rises, part of Florida, the most populated would flood. So I think the Latin population should be particularly concerned by this problem and should support that society faces and solves it as soon as possible.

Above all, human health is also being affected, for example, the effects of air pollution in urban areas accelerate when the temperature rises. And there are other problems, like dengue mosquitoes and other infectious diseases transmitted by these vectors, given that these are migrating to higher latitudes, so the zone of concern where there are these diseases is expanding. There are many aspects that have to do with human health. But perhaps there are more that affect their wellbeing through their economic development and through those costly impacts that we are beginning to see across the whole planet.

I think the Hispanic population can contribute to combat this climate change problem successfully by supporting our government, the leaders who are taking this problem very seriously. And it is important for politicians to see community support so they have enough pressure to make the necessary changes.