

## EDITORIAL

# Mitigation of Climate Change: Too Little or Too Much

**Jose Navarro-Pedreño\***

Department of Agrochemistry and Environment, University Miguel Hernández of Elche, Elche (Alicante), Spain

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Professor Emmanuel Epstein gave a conference entitled “Too little or too much” referring to plant nutrition and essential elements in 1990<sup>[1]</sup>, serves as a tribute to this professor emeritus, and this concept fits well with the actions related to the mitigation of Climate Change. After the 26th UN Climate Change Conference of the Parties<sup>[2]</sup> held in Glasgow under the slogan “UNITING THE WORLD TO TACKLE CLIMATE CHANGE”, it is time to reflect deeply on the subject and act.

Firstly, it is important to consider the recognition, explicit recognition, by The Intergovernmental Panel on Climate Change<sup>[3]</sup> that humanity drives and causes this climate change fact. It is obvious that throughout the Earth’s history, the climate has changed as well as many extinctions<sup>[4]</sup> happened: i.e. Ordovician-Silurian (445 million years ago), Devonian (375 million years ago), Permian-Triassic (251 million years ago), Triassic-Jurassic

(205 million years ago), Cretaceous-Tertiary (65 Million Years ago) ... and are we inside the Holocene extinction?

Nowadays many authorized voices claim that we are under a new extinction period and climate is changing due to human actions. Are both directly associated or it is just a coincidence in time? Maybe, both are closely related but the starting point of these processes is not coincident. In this sense, as the effects are globally affecting the Earth and the biodiversity of the planet, it is supposed that we have to look for a global solution. Surely, the economy is under global rules but not law, social welfare and governance. Moreover, environmental resources and conditions are different in any geographical part of the world. The solutions to mitigate climate change are not global solutions because every region or country starts from very different economic and social situations. They have limited availability of resources, energy, water, food,

\*Corresponding Author:

Jose Navarro-Pedreño,

Department of Agrochemistry and Environment, University Miguel Hernández of Elche, Elche (Alicante), Spain;

Email: [jonavar@umh.es](mailto:jonavar@umh.es)

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... The first interest of a regional or local government is (maybe) to give support to their society by facilitating resources and trying to achieve social welfare. To reach this, it is necessary to know the regional geographical context.

The actions taken to mitigate, too little or too much depending on the (un-)desirable increment of the temperature of the planet to reach, should be studied and applied considering not only environmental parameters, but social and economical status at the regional and local scales and the availability of resources. However, one more issue should be considered, the sustainability. This word was first used in 1972 in the context of man's future [5]. Mitigation and sustainability go together with the fact of reducing the negative effects of climate change and ensure our future.

Think globally, act locally, the idea attributed to Geddes (1915) applied to urban planning [6], has a new dimension nowadays. In fact, understanding urban metabolism is the key to the future. At least it is expected that close to 70 % of the people live in urban areas by 2050 according to United Nations Population Division [7] when nowadays this percentage is over 56% [8]. In developed countries this percentage is over 75%. Cities are great consumers of energy, food and resources and produce a great impact on the environment and climate change and cities should adopt strategies for sustainability [9].

From Geography and Environmental Sciences, we have to act after a thorough review of the local and regional situation, social, economic and environmental parameters, adapting the possible actions to the closest environment.

The available resources, responsibility and possibilities to contribute to a major reduction of climate change impact correspond to the developed countries. There are great differences between developed countries and developing countries. First, the great contribution of developed countries like USA, European Union, Russia or China to climate change and, second, the technological possibilities and economic resources to adopt sustainable and environmentally friendly solutions to mitigate Climate Change.

This journal wants to serve as a framework to show the local and regional actions to mitigate the negative effects,

to understand the consequences of these actions from a global point of view and promote the dissemination of knowledge that can serve so that the objective of reducing the negative effects of climate change is the maximum. It is never too much when it comes to securing our future.

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