



## THE CLIMATE CRISIS IN AFRICA

An interview with Professor Carlo Carraro contextualizes the current state of the climate and the environment and its impact on our health. From Italy to Africa, the consequences affect all of us and only a change of course aimed at curbing greenhouse gas emissions and incentivizing the use of renewable energies will restore some balance. Digital innovation could also play a role.

CHIARA DI BENEDETTO INTERVIEWS CARLO CARRARO / IPCC NETWORK - INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

*"Climate change is here. Thirty years ago we referred to it as an issue for the future. But now it must be considered one of the most significant threats to our socio-economic systems, ranging from the cities we live in to our economic activities. Both our planet and well-being are under threat. The global cost of the problem in 2017 is estimated to be around 190 billion dollars".* This is an excerpt from the *Trasformazioni* blog<sup>1</sup>, written by Carlo Carraro, President of the European Association of Environmental and Resource Economists (EAERE), as well as Full Professor of Environmental Economics at Venice's Ca' Foscari University, where he held the role of Rector until 2014. Since 2015, he has also served (for the second consecutive time) as Vice-President of the Intergovernmental Panel on Climate Change (IPCC), the international organization he joined in 1995 and which won a Nobel Peace Prize in 2007.

**o What do you mean when you say that our well-being is at risk? What sort of damages are you referring to? Are they of an economic nature alone or is there also documented evidence of the impact on human health?**

The interplay between climate, environment and health is apparent all over the world, but the consequences of the climate crisis are more critical in developing countries. Think, for example, of the scarcity of water resources as a result of droughts, as witnessed recently in Angola or in the area near Lake Tanganyika in East Africa: if there's no water, crops are endangered, agriculture is no longer sustainable, and nutritional deficiencies of various degrees of severity arise. Illnesses also spread more rapidly in such settings.

Then there are the indirect damages, that is to say those that arise from environmental catastrophes, which clearly take a toll on public health, especially that of the most vulnerable populations. One example is tornadoes and floods, which devastate entire regions and leave their inhabitants in a state of deprivation and/or further worsen their living conditions through food shortages and so forth.

Finally, another often overlooked effect is the consequence of greenhouse gas emissions, which are strongly linked with urban pollution. In Italy there are some 89,000 deaths every year from pollution-related cardiovascular and pulmonary diseases. In Europe overall, the number of such deaths – deaths which could

be prevented – rises to 320,000. The data is unequivocal: between 1880, the year in which temperatures began to be measured reliably, and today, the average temperature of Earth has risen by about one degree, with significant differences depending on latitude. At the North Pole, for example, the temperature increase has been as high as 4.5 degrees over the last century. At the same time, greenhouse gas emissions have increased, by as much as an estimated 80% over the last fifty years. Despite numerous warnings issued by the scientific community and the commitments formally undertaken by governments, nothing has been done yet to alter the course of this ongoing climate drift.

**o It has been estimated that about 50% of carbon dioxide emissions is produced by the world's richest ten percent, while the poorest half of the global population – some 3.5 billion people – generates just 10% of the total emissions which may be attributable to individual consumption<sup>2</sup>. The highest price is paid by the most vulnerable countries, which lack the means to react. What exactly does this mean?**

The people living in more fragile countries are more fragile themselves: these parts of the earth are more vulnerable in both physical and social terms. They lack economic opportunities, and consequently also means with which to defend themselves. And these populations rely primarily on agriculture: for example, the agricultural sector makes up 70% of the gross national product in sub-Saharan Africa, compared to only 8% in Italy. And it is the first sector to be endangered when climate disasters take place.

Against such a backdrop, it becomes critical to steer a new course, and the responsibility for doing so will fall primarily upon countries with a higher development index. How can the world population grow to 10 billion by 2050 and still achieve decent living conditions? Energy will be indispensable, and the only ethically and scientifically valid path forward that I can see is to produce energy that will not further exacerbate the climate crisis already underway. In practice, these are the steps that could be taken:

- irrigation, water diversification and investments in micro-precision agriculture;

- production systems powered by solar energy;
- the use of smartphones to schedule production; and
- demand-driven facilities so as to consume energy only when required, thus avoiding waste.

But today, large-scale “clean” power facilities are still scarce. We must do much more in that area, making investments in technological innovation especially in developing countries.

- o **As we speak, Madrid is hosting COP25, the United Nations Climate Change Conference, which brings together almost 200 representatives from governments, citizen communities and international organizations to discuss climate change-related damages and pinpoint possible solutions. What is Italy’s response to all of this? And Africa’s?**

In practice, Italy has yet to respond: it has done very little thus far to encourage the use of renewable energies. It was only because of the economic crisis that energy consumption fell in 2013 and 2014, but that was more of an interim effect due to saving-oriented behaviors than a reflection of people’s awareness about the issue. On 28 November of this year, the European Parliament declared a global climate and environmental emergency. I hope that Italy will heed this message and follow up with specific actions.

As for Africa, it should turn to solar and other renewable energy sources, but doing so will necessitate community-level change. A first step could be the conversion of coal-fired ovens into electric ones.

- o **Over the past year, Doctors with Africa CUAMM witnessed firsthand some extremely severe weather events: tropical Cyclone Idai in Mozambique, the drought in Angola, and the floods in Sierra Leone. What do you think CUAMM could and should do to play a concrete role in environmental and climate matters?**

Doctors with Africa CUAMM carries out ex post interventions to help counteract the damage that unexpected climate events inflict on land and people, and to ensure healthcare, guaranteeing support and taking the most appropriate actions depending on the specific nature of the weather event. CUAMM already plays a fundamental role in this sense because it supplies health services to local communities in an ongoing manner. But organizations like CUAMM, which has such deep roots in the territory, can also carry out prevention activities to raise awareness among local populations about climate change.

Doing so “from below” could be an important driving force for change, spurring people to adopt inexpensive technological solutions to save energy, for instance. Let’s take as an example the use of coal-fired ovens in sub-Saharan African villages: the pollution they cause is often an agent of pulmonary diseases. Using simple electric ovens powered by solar energy would signal an important change of course, and have an impact on both the environment and people. Indeed, we are going to have to work simultaneously in two separate directions: on the one hand, politicians must grasp the gravity of the climate emergency and take steps to limit pollution and promote clean energy sources; and on the other, citizens must play their own role through simple daily actions, mindful that our planet’s health is *our* health as well.

## NOTES

<sup>1</sup> [www.carlocarraro.org](http://www.carlocarraro.org)

<sup>2</sup> Oxfam Report: “Extreme Carbon Inequality” (2015)