

Editorial

From the Montreal Protocol to the Climate Loss and Damage Agreement: lessons and warnings

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On September 23, 2019, in an interview with TIME magazine, the famous climate scientist Susan Solomon was asked why a society that managed to unite in the 1980s to handle the hole in the ozone layer in Antarctica still cannot do so to fight climate change (TIME, 2019). More than three years later, this question – and the inaction – are still accurate: why were we able to join forces to eliminate chlorofluorocarbons (CFCs) found in many refrigeration and personal care products, responsible for the depletion of the ozone layer and are now unable to combat the climate crisis?

Evidence of climate disaster abounds, and we do not need to mention the most recent report by the Intergovernmental Panel on Climate Change (IPCC), of which Solomon is a senior member. A simple recall is enough of that at the launch of the Working Group III report of the 6th assessment, on climate change mitigation, in April of this year, the Secretary-General of the United Nations, António Guterres, launched a particularly dismal message: "The jury has reached a verdict. And it is damning. This report of the Intergovernmental Panel on Climate Change is a litany of broken climate promises. It is a file of shame, cataloguing the empty pledges that put us firmly on track towards an unliveable world".

Nor do we need to remember here the countless daily testimonies of farmers from all origins, from the North and South Hemispheres, and under every economic situation possible, from large agribusiness to small producers, who feel the losses generated by climate change in their pockets. We do not even need to bring up the thousands of victims from floods, landslides, droughts, or even the rising costs of food, which mainly affect populations that are already historically vulnerable.

There is skin-deep evidence, the kind that even climate deniers cannot get away from, as it sticks like mosquitoes to day-to-day situations: 2022 was the hottest year ever measured in France since records began in 1900, announced Météo France on Wednesday, November 30, while stating that the phenomenon is an undeniable "symptom of climate change in France" (LE MONDE, 2022). It is an ideal environment for dengue. This scourge that seemed restricted to the tropical environment and that has also been felt for several years by residents and tourists in South Florida (USA) is now advancing on new frontiers without a visa or permission (STEPHENSON *et al.*, 2022). If climatological trends are confirmed, the prospects for the Zika virus terrify the United States and Europe (RYAN *et al.*, 2021).

Given these consequences of inaction in the face of the effects of current climate change, it is understandable that the experience of the ozone hole is considered an environmental success story: it was the only area where decisions were taken globally and on time, with a successful phasing out of the risk.

Nevertheless, if the news of the ozone hole was dramatic enough to stimulate the signing of the Montreal Protocol by the end of 1987, initiating the phasing out of CFCs, then why can't we repeat the feat? Why, despite the immense historical value of having reached an agreement on damages and losses signed this year in Egypt, do we leave yet another COP with a bitter taste in our mouths since the long-awaited agreement does not include essential information, naming the countries to be compensated nor how much money will they receive? (BBC, 2022).

The COP-27 declaration in Egypt did not specify which countries will benefit from the fund, nor the details of its financing mechanism, central points to be defined in "future" meetings. However, it is worth remembering that at the end of the Rio-92 conference (United Nations Conference on Environment and Development), there was a commitment for the wealthiest countries to allocate 0.7% of their GDP (gross domestic product) to development aid, an agreement whose effectiveness, predicted for until the year 2000, was never reached (BURSZTYN, M. A.; BURSZTYN, M., 2013). Several reasons could explain our climate inertia, and none of them leaves us in a comfortable situation as human beings, as they confirm our lack of altruism. We continue to be unable to think about humanity globally and with no vision of the future: we have crossed the limits of planetary resilience, but we are still very slow to react as if Mother Earth's resources and patience were infinite.

In the case of the depletion of the ozone layer, three reasons explain the speed of the resolution process: first, it quickly became clear that the risk generated was tangible and, above all, personal ("I" could get skin cancer and "my" children need to stay at home at certain times, due to solar radiation). It was not a matter of remote concern about the future of populations of small remote islands (postcard-like image) that are being swallowed by the sea.

Secondly, getting rid of CFCs in spray cans was an effortless thing to do. Without huge amounts of personal sacrifice, it was only necessary to stop using spray cans and start using pumps and cylinders for underarm deodorant. At the same time, converting CFCs to other alternatives for refrigeration equipment manufacturers opened up good market prospects with relatively little additional investment. It was, in other words, changing shelves at the supermarket, even without much impact on one's pocket. It is easier (and much cheaper) to change aerosol sprays than to get rid of the car and start cycling again. Even easier than reconverting the energy grid. Not even a war like the one in Ukraine managed to achieve this rapid conversion to renewables, and many countries opted for dubious shortcuts to guarantee energy in the Northern Hemisphere's winter.

However, the third reason that led to the ozone story's success can show us a way and encourage our actions in our days of climate struggle. According to Susan Solomon herself, there is a positive historical parallel between the fervour of activism in the 1970s and 1980s against aerosol cans in the United States and the strength of the international movement against climate change, with the youth movement led by Greta Thunberg, even if she has chosen not to participate in the COPs, tired of climate summits used to "greenwash, lie and deceive" (THE GUARDIAN, 2022).

Without further ado, what is certain is that the discovery of the ozone hole has sometimes been called a "focusing event" - an event that focuses public attention on a particular problem and which manages, for different reasons, to mobilise (TIME, 2019). Nowadays, the so-called "BIC countries" (Brazil, Indonesia and Congo), for example, have come together around another "focusing event": carbon emissions from deforestation/burning of their vast tropical forests.

The problem with "focusing events", similar to the "flagship species" adopted in biodiversity protection campaigns, is that they mobilise minds and hearts in a shallow way, without depth in the literacy process around the environmental processes involved, a mobilisation that fades too quickly and does not prepare for new similar challenges, as seen in the shift from CFCs to climate change.

It is still necessary to develop a broad and systemic view of the processes involved, considering the complexity of the interactions and the feedback and control processes. For example, taking the previously discussed energy matrix theme, we need to remember that the projected climate change scenarios indicate impacts on the generation of hydroelectricity, leading to greater activation of thermoelectric plants, which, in turn, positively feedback the mechanism that contributes to climate change: the increase in the emission of greenhouse gases (MICHELS-BRITO *et al.*, 2021). Therefore, getting the big picture is fundamental for future socio-environmental confrontations.

In the case of Brazil, which on January 1, 2023, begins to write a new stage in its history, a challenging process of rebuilding environmental policies and actions to fight deforestation will begin (FONSECA; LINDOSO; BURSZTYN, 2022). However, as with natural grasslands whose land has been razed, getting back "to normal" can be a slow and pharaonic task. A worrying finding is that, although difficult and slow, the resilience of instruments and policies resulting from an organised deconstruction process is greater than that of the ecosystems that are being devastated. Hopefully, no more lives will need to perish (human and non-human) until we collectively realise the urgency of acting responsibly towards Life on our Planet.

In its last issue of 2022, SiD publishes nine articles in the Varia section and the list of reviewers who collaborated with evaluating the works received throughout the year. We are immensely grateful for their dedication and time, turning our mission possible.

In the first group, focusing on the energy issue, Ramos Júnior *et al.* evaluate whether wind energy in Brazil has contributed to achieving the goals assumed in the Paris Agreement. Next, Soares & Barreto analysed the political arena around the issue of regulating the distributed generation of electricity in Brazil, elucidating the obstacles to its expansion, such as the disputes over narratives. Next, the article by González examines the relationships between the energy transition, society and the environment, focusing on the use of copper in Bolivia, Chile and Peru. In a second group, Ventura *et al.* evaluate the environmental benefits of implementing an urban mobility plan in Rio de Janeiro between 2011 and 2016. Onofre *et al.* analyse how the Pontal do Paraná Industrial Port Complex projects evaluated the cumulative impacts by analysing the Terms of Reference and Environmental Impact Studies of five projects. Through the use of a Social Urban Water Shortage Vulnerability Index, Ferrer *et al.* demonstrated unequal access to water between the different regions of a municipality in the state of São Paulo. Mendonça & Laques focus on a conceptual impact assessment model, especially aimed at agricultural research organisations, presenting a theoretical model applicable to research and innovation organisations in line with the United Nations' Sustainable Development Goals.

In the final group, Mendes *et al.* discuss the specific vulnerabilities, adaptive measures and opportunities identified in three groups with different socio-environmental profiles (traditional communities Fundo de Pasto in Northern Bahia, Tuxá indigenous community in Rodelas/BA and the irrigated perimeters of the Juazeiro/BA-Petrolina/PE pole). Finally, Dávalos and Rodrigues Filho also analyse the use of Social Network Analysis (SNA) in the Tuxás indigenous community in Bahia to understand the configuration of interaction and flow of information of the people and their multilevel relationship to face the environmental problem of drought.

We wish you all a good read and a healthy and peaceful New Year.

NOTES

1| Watch António Guterres' full message at <https://bit.ly/ipcc-2022-3>.

2| Participants at the United Nations Climate Summit in Egypt, COP27, reached a commitment for a new fund to compensate for "loss and damage" caused by natural disasters in "particularly vulnerable" developing countries. The deal, with many details yet to be decided on, supports the so-called "mosaic of solutions" called for by the EU negotiators, among other countries, which advocate new financial instruments to help pay for the damage caused by extreme events related to the climate crisis. This debate has been the central theme in climate summits since the 1990s. However, many points have not yet been defined.

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