

Arne Klages

Sustainability series (I): A green future – with or without print?

In a three-part blog series, we're going to be discussing a topic that is becoming increasingly important – climate change and the associated sustainability in industrial production. In doing so, we will be also asking whether the printing industry can be part of a sustainable and globalized world. Or does the 500-year-old industry no longer have a place in our green future?

In the first part of the series, we're going to think a little outside the box. How far have we come in terms of climate protection? Has the problem been solved by itself due to corona? The second part will then focus on the printing industry and deal with the footprint that print media leave behind on our planet. A comparison will then wrap it up. What is more sustainable: print or its alternatives? Is the internet really as green as we generally think? What measures is the printing industry taking to protect our environment?

2020 was to become the year of a reversal in climate policies

For months now, almost everyone human being on our blue planet has been preoccupied with one matter: a global pandemic. Other subjects – such as environmental protection – have taken a backseat.

Only six months ago, activists of Extinction Rebellion conjured up the mass extinction of animals, plants, habitats and even the extinction of humankind. They blocked roads and chained themselves to fences in order to force politicians to act. Hundreds of pupils also rose up

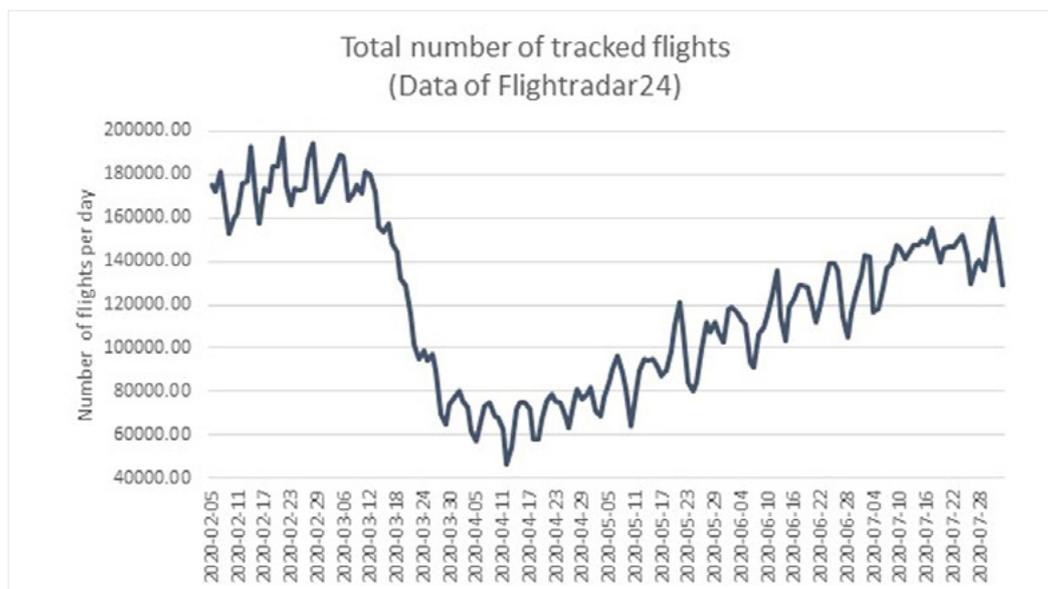
against their “evil boomer parents.” They stopped going to school on Fridays and took to the streets to protest for their future. Because 2020 was to become the year of a reversal in climate policies...

...and then Covid-19 struck

But then the SARS-CoV-2 virus struck and the world held its breath. Quite literally. International air travel came to a halt, borders were closed, factories closed their gates, and people huddled under mountains of toilet paper and dry pasta in front of their TV sets. Absurd, right? In a few years, this situation will certainly cause some embarrassed laughter. Especially when the last pack of pasta has finally been eaten.

But is Covid-19 the “big break” that the climate needs from us humans?

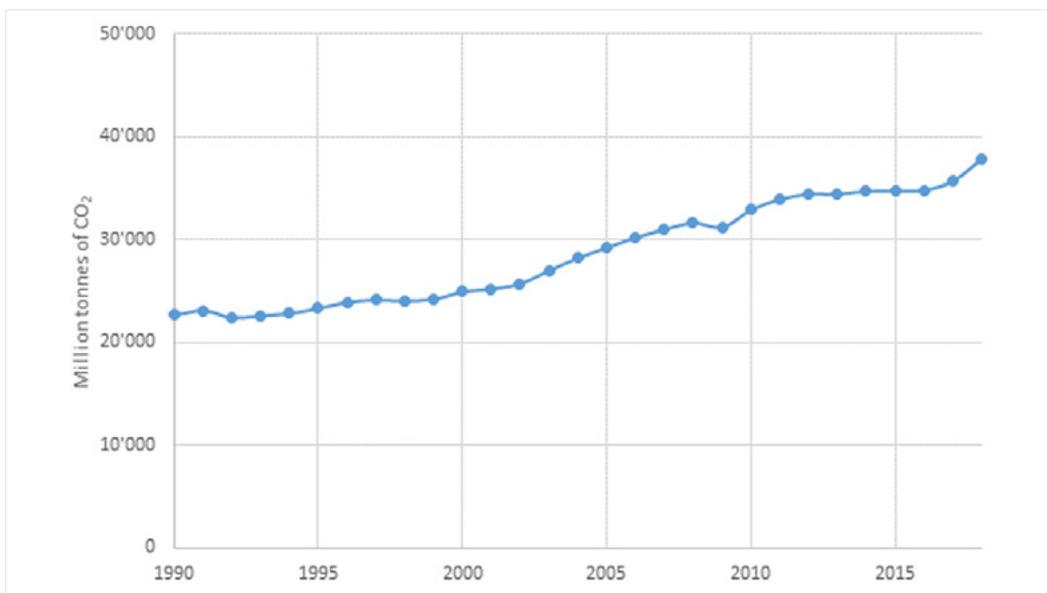
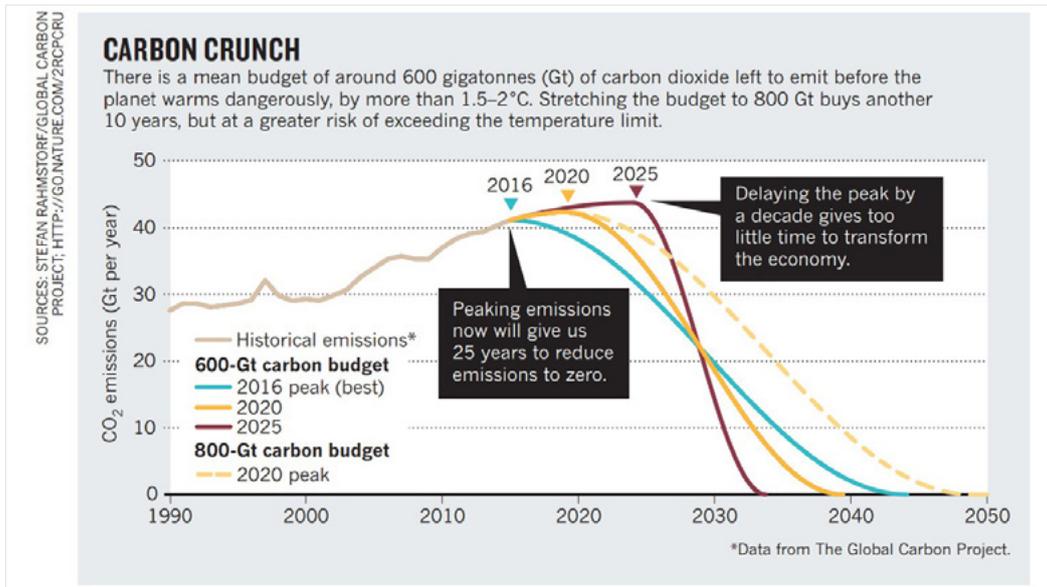
The [answer](#) is: unfortunately, no. The University of Sydney reported in a study that the corona crisis has resulted in global CO₂ emissions falling by about 2.5 gigatons per year (or 4.6 percent). By comparison, during the 2009 financial crisis, emissions dropped by 0.46 gigatons. That might sound initially promising, but is probably more the result of the above short-term measures. Global flight movements, for instance, have dropped by 70 percent since mid-March. This is shown by figures of flightradar24 (see chart).



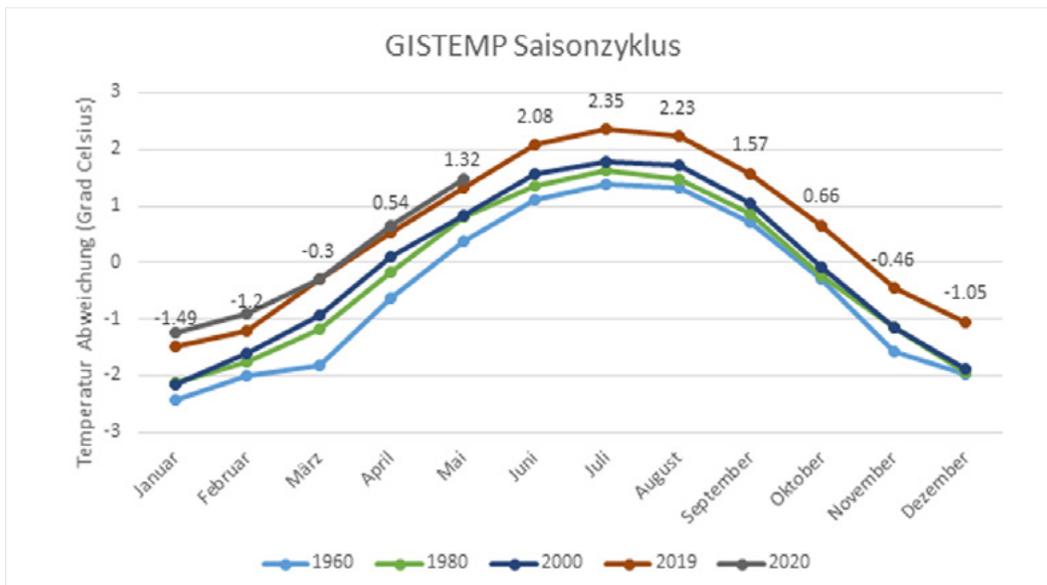
However, as soon as the restrictions are lifted, emissions will likely bounce back to the old level, and probably be even higher. After all, companies will be busy moving their figures back into the black. And people who have lost their jobs will be more worried about how to pay rent rather than the environment.

How much CO₂ is acceptable?

Allow me a short digression into the basics of climate mathematics. In 2015, the Paris Convention was signed. 197 parties to the agreement of the United Nations Framework Convention on Climate Change (what a name!) committed to limiting global warming to 1.5 degrees. This results in a so-called CO₂ budget. Think of it as a kind of “atmospheric landfill site.” The “space” still available specifies the volume of emissions that may still be released to remain below the temperature increase target with a certain degree of certainty (66 percent). What this looks like is visualized as follows:



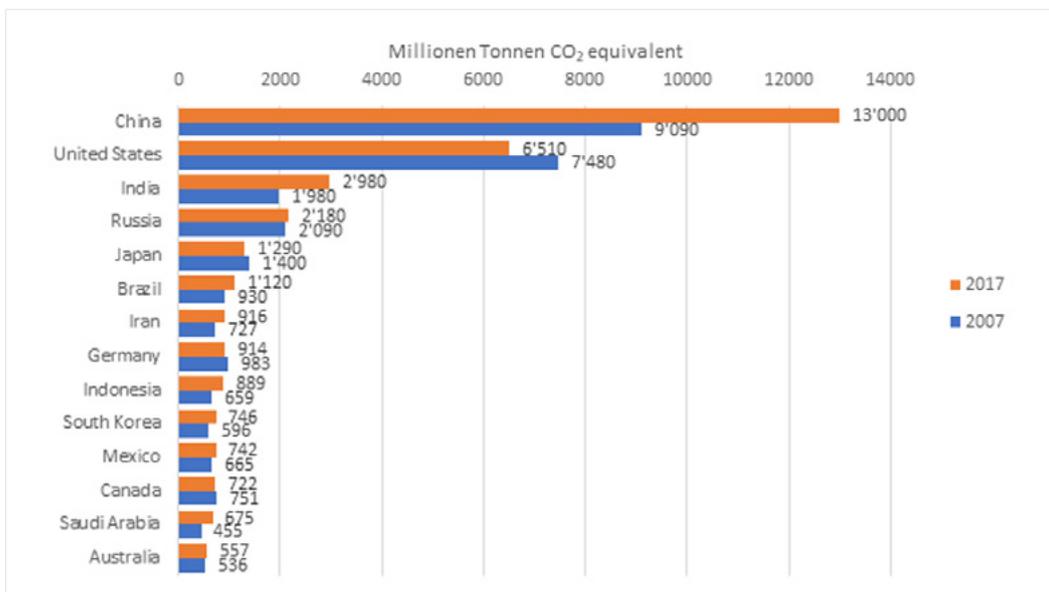
The second chart consists of the values published by the Climate Watch website. Comparing the two charts, it is striking that the sharp turnaround that was to be achieved in 2020 has yet to materialize. Corona will certainly make the statistics look more positive, but the trend is concerning. Initial effects on the change in temperature can already be seen today.



The above chart with data from the American space agency NASA shows relatively clearly that the global temperature has already risen in the summer months. May 2020, for instance, was 1.5 degrees Celsius hotter than the average month since 1880. The applied values are the deviations in each month compared to the global annual mean. [Scientists from the National Oceanic and Atmospheric Administration](#) are already now forecasting that 2020 will be the hottest year since records began.

The question of responsibility

As with every question in life, far more important is the question: Who is responsible?



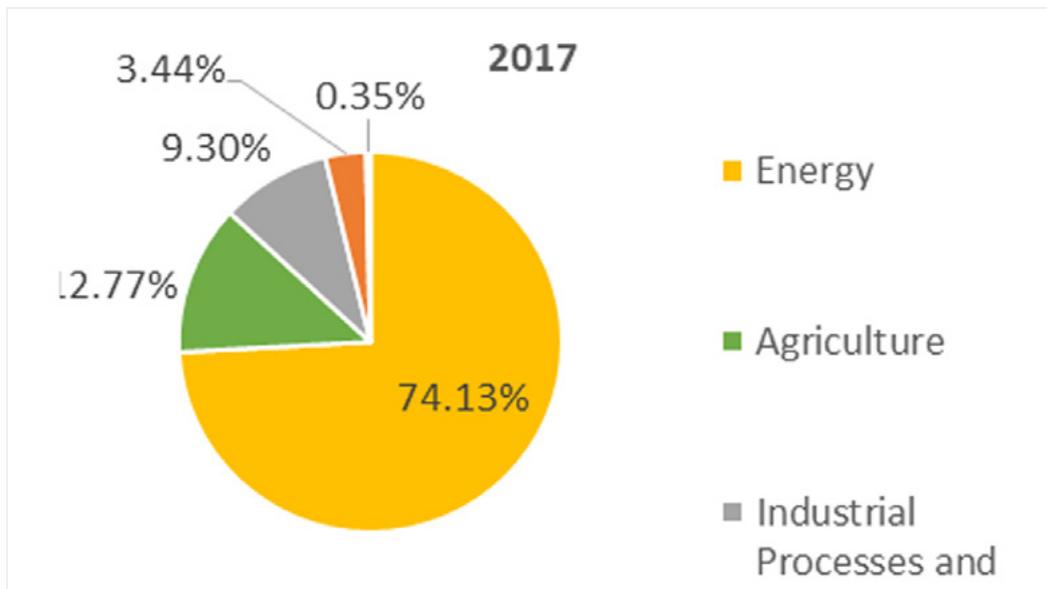
The chart above shows that CO₂ emissions have only minimally decreased in most traditional industrialized countries. By contrast, China's CO₂ emissions have increased by 43 percent and India's by 50 percent within ten years. By comparison, in 2017, Switzerland emitted 47 million tons of CO₂, which is about 0.1 percent of global emissions.

Does that then mean that the question of responsibility has finally been solved? Can we point the finger at China, the U.S. and India and blame them for everything?

Of course not. After all, most of the emissions caused by these countries have been merely exported by us. This problem is also known as "carbon leakage". If climate protection measures in one country are too stringent and production costs too high, companies simply relocate their production to other countries where the regulations are less stringent, making costs significantly lower. It goes without saying that this is not the only influencing factor here. The fact that other influences facilitate relocating our waste to other countries will, however, not be discussed here.

Hunger for energy

As the following chart shows, the hunger for energy is one of the biggest driving factors for the rise in emissions. Nearly three quarters of global greenhouse gas emissions are accounted for by energy generation. This subject was already set out in detail by Knud Wassermann in his [blog "Digital is no more sustainable than print – on the contrary"](#).



Next Tuesday, in the second part of our blog series on sustainability, we'll be talking about the role of the printing industry in climate protection.

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