Bettering the Philippines' "cloud" data

The PH needs an overhaul in their air cleanliness laws and technology, particularly in air monitoring.

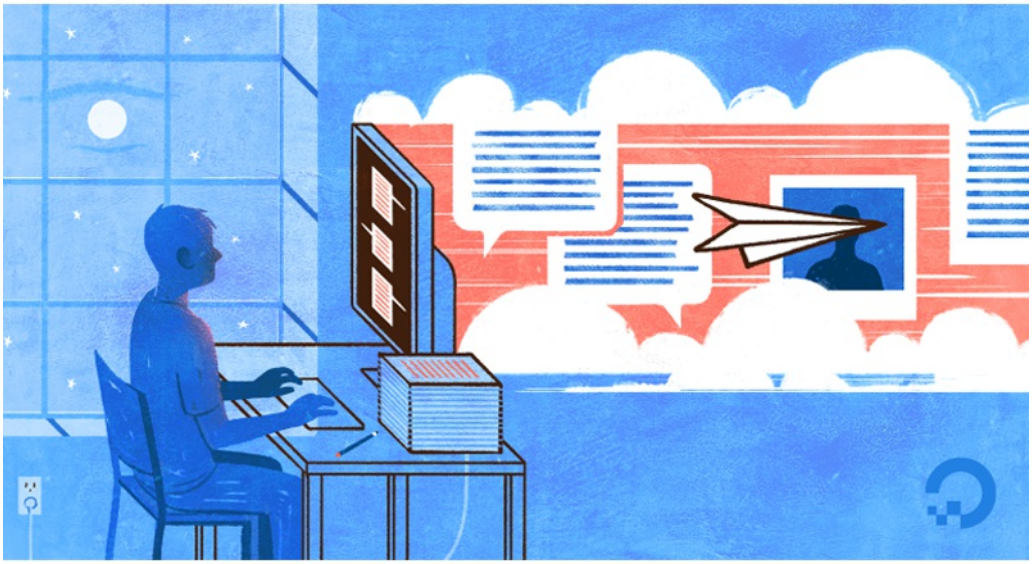
Illustration by Pat Raubo

While humans can live three days with food and one day without water, we would not last 30 seconds without air. Magno (2021) investigated the levels of PM2.5 and NO2 pollution in the Philippines before and during the pandemic —a time where people stayed home and factories are turned off. Through what I would call his State of the Air Address, he reports that air pollution is costly. Looking at both the medical and economic fields, a report by CREA and Greenpeace (2020) found that there were 66,000 avoidable deaths and 4.3 trillion PHP lost simply because we failed to keep the air clean. As a result, Magno's statements led me to agree with him: the Philippines need an overhaul in their air cleanliness laws and technology, particularly in air monitoring.

As someone who has been living in the Philippines for 17, almost 18 years, I have witnessed the Filipino tendency to settle for less. Bearing an "As long as the task is done, it is finished and we will not be touching that anymore." mindset (which I, unfortunately, also bear). Without the right motivator, like money for incentives, this can lead to lax auditing and lowered standards for emission quality. This was explicitly observed in the same report by CREA and Greenpeace, wherein they stated that the Philippine emissions standards for power plants and industry are some of the weakest in Southeast Asia. That is why I strongly suggest

that the government rework its air monitoring laws and procedures. Specifically, on the employees' side, for this is a case of proper work incentivisation, the Department of Environment and Natural Resources should make their jobs more rewarding. While this advice will only help a single sector: air monitoring, this will be supplemental for the other sectors involved as accurate big data is vital to create better-informed decisions.

It is common for humans to be goody-two-shoes whenever their superiors are around, then simply make up magical numbers of reports when they are not. This kind of behavior is not their fault. In some cases, this is due to the technical inconveniences they have to go through. The same air report says that in the Philippines, there are a limited number of real-time monitoring stations for air quality. Furthermore, access to air quality data is also limited and the stations are frequently malfunctioning, resulting in gaps in data and lesser worker morale."



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Again, this is not their fault. In the Philippines, there is a limited number of real-time monitoring stations for air quality. This statement alone demands that better technology is to be used. Upgrading our systems will exponentially increase the data being produced. Take the United Kingdom for example, the UK monitors air quality nationally through a number of networks of monitoring stations. The network that monitors concentrations of the most well-known pollutants is called the

Automatic Urban and Rural Network (AURN), which reports data hourly in near real-time on the UK-AIR website. Historical hourly data for each monitoring site are available to extract from the UK-AIR database on the website, along with a variety of other data tools. If DENR allocates more budget for technology similar to this, the Philippines can enjoy cleaner air, assuming that other sectors within the said environmental energy follow suit (i.e. carbon capture technology).

Building and rebuilding our current air policies and technologies can help solve the Philippines' problem of improper air data collection. Enabling granular monitoring, both in a human and technological sense, particularly including those tasked with auditing air quality, will result in quality data-driven decisions. But when all is said (and maybe done), this dilemma is still left to the hands of our national decision-makers to make. Will they take action on it or not? Will they "catch" this silent killer or will they let it help it infest the streets of the country?

By Carl Kho on December 5, 2021.

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