

BTC Report and Review

Report

I started by loading my csv files using the readr library and created a collection of dates that were needed for the visualisations. For PM10, Nitric Oxide and Nitrogen Oxides as Nitrogen Dioxide, I created data frames with their respective columns in their script files. Then using the lubridate library, I passed the date in the `dmy` format. I then filtered out the needed dates from the data frames with my collection. With this, I had that I removed so I could keep data integrity. To have my dates and months appear in a proper manner on the visualisations, I passed them as factors.

Review

PM10

There were relatively high levels of PM10 on the 26/03/2021 throughout the whole day. This was probably because since the lockdown was starting to be enforced, most people panicked and ran out to do shopping and run errands before it came into effect at 1pm as seen on the chart. The levels are usually less than 20 throughout the day except on occasion 3pm – 7pm. This could be due to people commuting back home from work.

Nitric Oxide

Relatively, these levels are always below 20 for most of the day except for a spike between 2pm and 7pm on the 29/11/2021.

Nitrogen Oxides as Nitrogen Dioxide

The levels of Nitrogen Oxides as Nitrogen Dioxide mostly below 50, with a moderate range between 50 and 100 from 7am to 11pm. With high levels on the 29/11/2021 throughout most of the day.

Monthly Averages for 2020

From the look at this graph, the levels of Nitric Oxide and Nitrogen Oxides as Nitrogen Dioxide seem to be following a similar trend where if one rises the other rises too and if one falls, the other falls too. On the other hand, PM10 follows the opposite trend to Nitric Oxide and Nitrogen Oxides as Nitrogen Dioxide that is to say that when the other 2 are rising, PM10 is falling and vice versa.

Monthly Average for PM10 Years (2020,2021,2022)

The levels throughout these years have fluctuated. Looking at the year before and after the CAZ was introduced, it didn't really lower the PM10 levels but they rather risen for almost half of the year.