**A One Health Approach**

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Day 1 Data Analysis

On March 25 2020, the Indian government placed its population of more than 1.3 billion citizens under lockdown in an effort to reduce the spread of the COVID-19 disease. All non-essential shops, markets and places of worship were closed with only essential services including water, electricity and health services remaining active.

## Objective

Here we have access to a large amount of granular data relating to the concentration of major air pollutants in India and it will be interesting to see if the claim of reduced air pollution is being actually backed by data. Before going further let's understand about the constituents of Air Pollution.

## Methodology Used

In this notebook, the analysis has been done in two parts:

* Analysis of the pollution level in India, over the years - from 2015 to 2020
* This will a holistic view of how the pollutant levels have been rising in India and what is the current situation.

Dataset

We have extracted our datasets from Kaggle which contain daily city wise data. The data consist of features such as,

1) PM 2.5 and PM10

2) and air pollutants such as NO2, SO2, etc.

Data Cleaning

Let's begin by analysing the various cities daily data to get a big picture. We shall begin by importing the dataset and the necessary libraries for the analysis.

There was to be a lot of missing values in the dataset. Additionally, the Date column is also not in the Date-Time format. So, we added that.

We have combined Benzene, Toluene and Xylene into one column since they have lot of missing data.

We have also combined PM2.5 and PM10 data to get a single output for the particulate matter data as it was not making some huge changes in the final model.

Data Visualisation

We have plotted the data for year wise and month wise regarding each pollutant and particulate matter and all the data is in PPM.

We have created separate datasets for different pollutants and particulate matter and sorted them in ascending order.