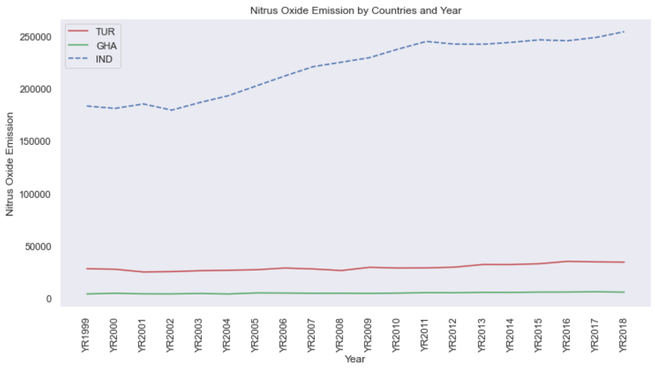
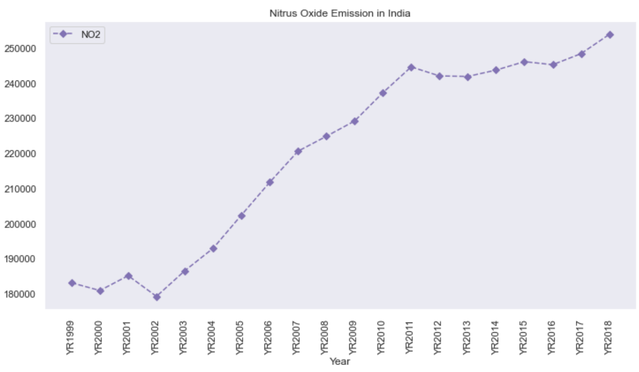
Air Pollution by Countries (CO2, N20)

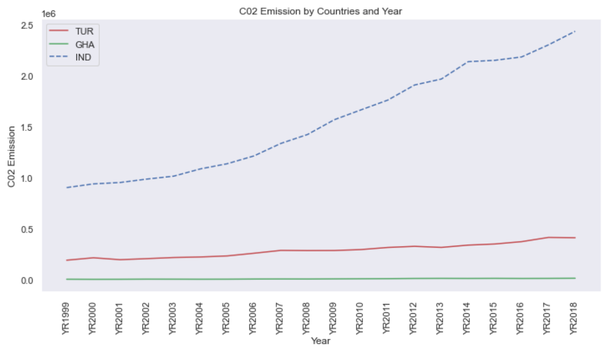


The analysis is showing the fact that the emission of CO2 is highest for India followed by Turkey and same for the emission of Nitrous Oxide.

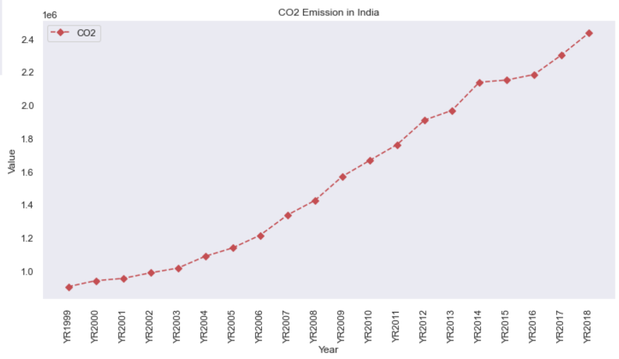


The emission of the CO2 has been analyzed India as it has been seen that India is highest in the CO2 emission and the analyses is show on right.

The emission of the CO2 has been analyzed for the selected countries and the line charts have been produced for better perception to view time series data

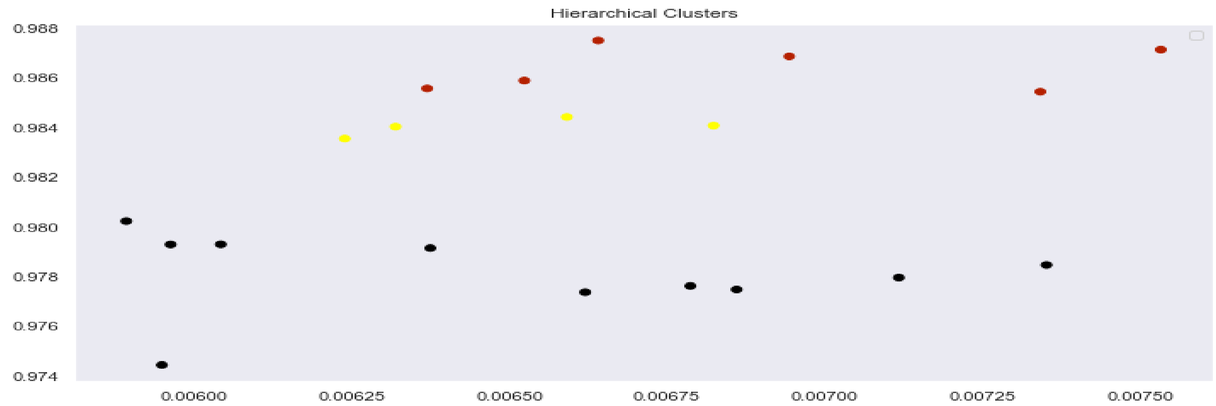


The emission of the N20 has been analyzed India as it has been seen that India is highest in the CO2 emission and the analyses is show on left.

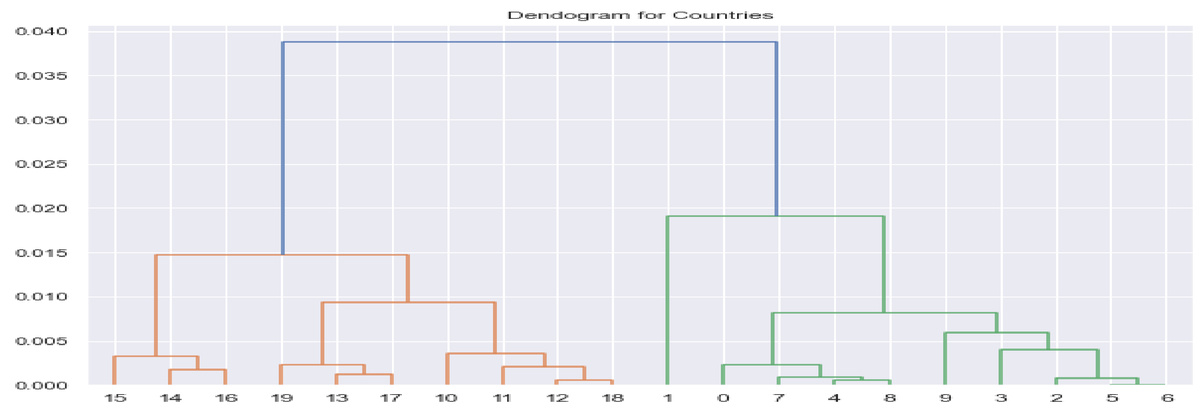


Background and Motivation

Air Pollution is one of the problems for a nations. This hampers the healthy living of the people in the countries due to the spread of toxic element in the environment. The air pollution can happen for various reasons. Co2 and Nitrous Oxide are the two which pollute the air most. Those are mostly generated from the manufacturing industries, electricity production industries etc. Here, the analyses have been done by taking World Bank data and selecting three countries namely Turkey, Ghana and India.



The countries have been categories using clustering. In this context, both the K-Means and Hierarchical clustering have been used.



The detection and prediction on the spread of air prolusion has bene done on the existing data for last 20 years using curve fitting through Exponential model. The error range has ben taken with lower bound by 1 and upper bound by 5.

Fit Statistics

fitting method	leastsq
# function evals	1133
# data points	20
# variables	3
chi-square	0.84786186
reduced chi-square	0.04987423
Akaike info crit.	-57.2153966
Bayesian info crit.	-54.2281998

https://data.worldbank.org/topic/climate-change