

AIR QUALITY ANALYSIS IN TAMILNADU

PHASE 5 PROJECT

DONE BY : T.R.KAVIALAKSHMI

GUIDED BY : Mrs.B.MOOHAMBIGAI

INTRODUCTION

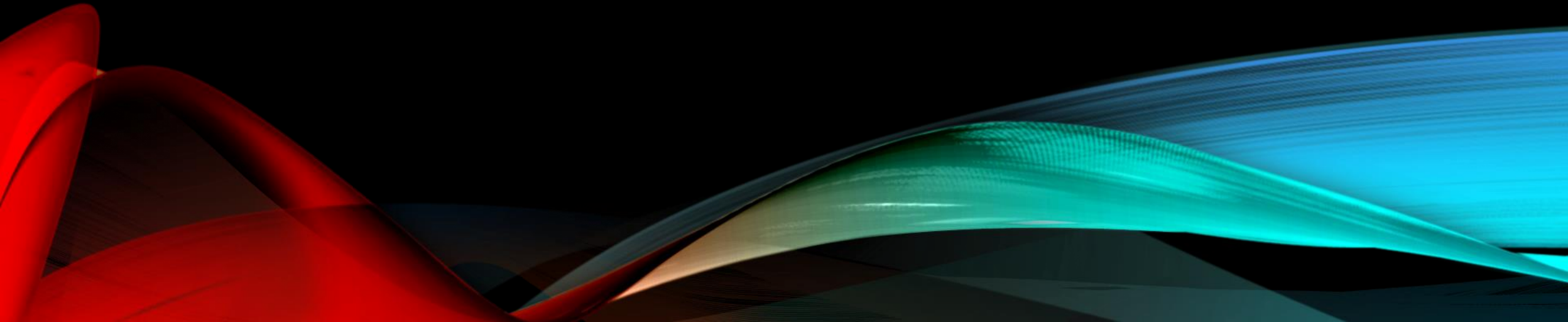
- ❑ The term air quality refers to the degree to which the air in a particular place is free from pollutants.
- ❑ Air pollutants are substances present in the atmosphere at concentrations above their normal background levels which can have a measurable effect on humans, animals and vegetation.

OBJECTIVES

- ❑ The main objectives of these Networks is to record the concentration levels of atmospheric pollutants in order to define air quality levels and establish action plans if high levels of contamination are detected.

DATA SET

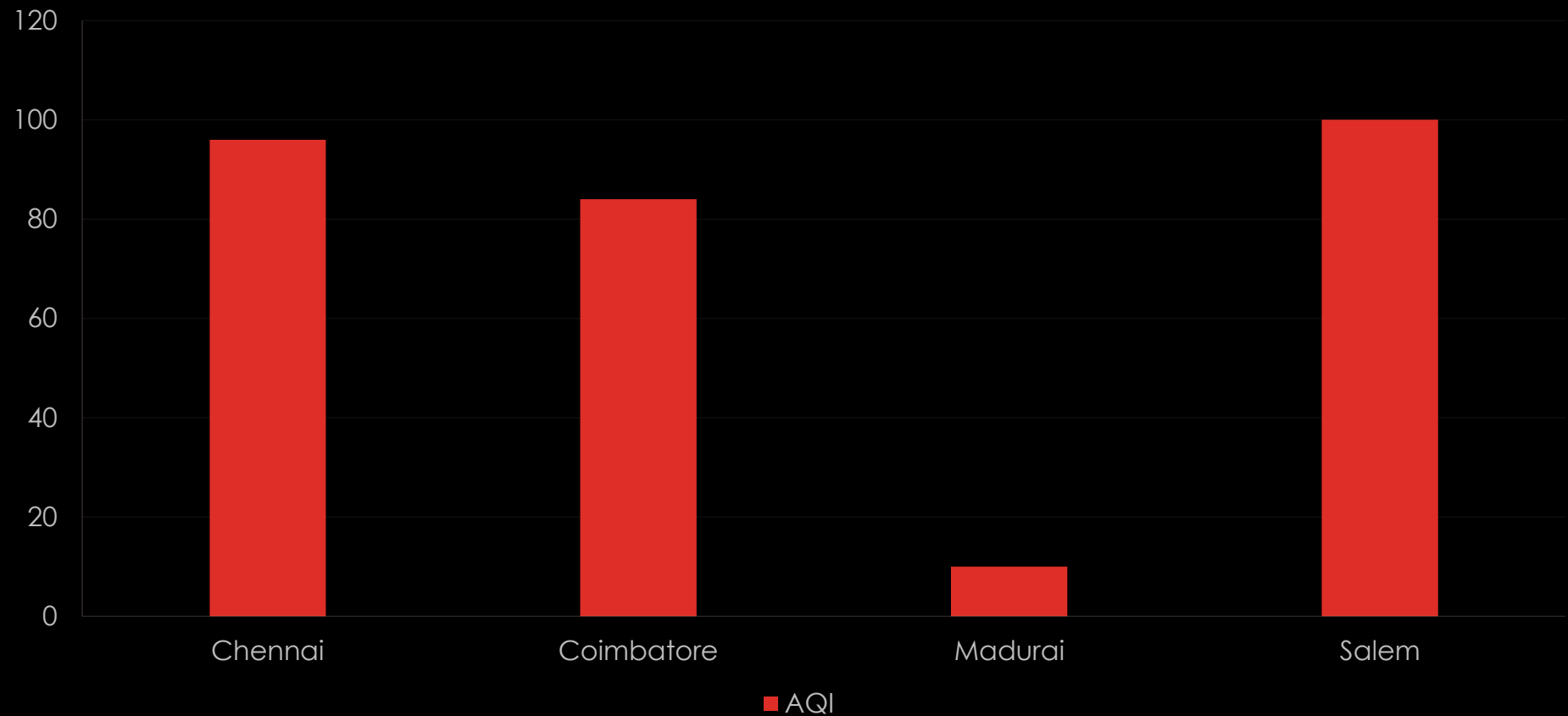
❑ `url = "https://tn.data.gov.in/resource/location-wise-daily-ambient-air-quality-tamil-nadu-year-2014"`



COLLECTION OF DATA

Stn Code													
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Stn Code	Sampling	State	City/Town	Location	Agency	Type of Lo	SO2	NO2	RSPM/PM	PM 2.5			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	11	17	55	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	13	17	45	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	12	18	50	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	15	16	46	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	13	14	42	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	14	18	43	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	12	17	51	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	13	16	46	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	10	19	50	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	15	14	48	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	14	16	32	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	14	14	29	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	13	17	17	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	15	16	44	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	12	17	25	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	13	16	29	NA			
38	#####	Tamil Nad	Chennai	Kathivakka	Tamilnadu	Industrial	11	18	29	NA			

ANALYSIS OF DATA ABOUT AQI



MANIPULATION OF DATA

- ❑ Data manipulation refers to the process of adjusting data to make it organised and easier to read. Data manipulation language, or DML, is a programming language that adjusts data by inserting, deleting and modifying data in a database such as to cleanse or map the data



METHODOLOGY

- ☐ Source Correction Methods.
- ☐ Pollution Control equipment.
- ☐ Diffusion of pollutant in air.
- ☐ Vegetation.
- ☐ Zoning.

PYTHON CODE

```
import requests
import pandas as pd
# Define the URL of the web page you want to scrape
url = https://tn.data.gov.in/resource/location-wise-daily-ambient-air-quality-tamil-nadu-year-2014
# Send an HTTP GET request to the URLresponse = requests.get(url)
# Check if the request was successfulif response.status_code == 200:
```

```
# Use pandas to read HTML tables from the page
tables = pd.read_html(response.text)
# You might need to inspect the page's HTML to identify the
correct table
# If there are multiple tables on the page, you can access them by
index # For example, to get the first table:
# df = tables[0]
# Once you have the desired table, you can save it to a CSV file
# For example, save the first table to "air_quality_data.csv"
df = tables[0]
df.to_csv("air_quality_data.csv", index=False)
```

```
print("Data saved to air_quality_data.csv")
```

```
else:
```

```
    print("Failed to retrieve the web page. Status code:",  
response.status_code)
```

OUTPUT:

	PM2.5-AVG	PM10-AVG	NO2-AVG	NH3-AVG	SO2-AG	CO	OZONE-AVG	air_quality_index
0	190	131	107	4	42	0	63	190
1	188	131	110	4	40	0	62	188
2	280	174	155	2	37	0	52	280
3	302	181	144	2	39	0	78	302
4	285	160	121	3	19	0	71	285

The background is a dynamic, abstract composition. It features several broad, flowing bands of color: a warm orange-red at the top left, a vibrant cyan at the bottom right, and a deep red at the bottom left. These colors are separated and overlaid by numerous thin, light-blue or white streaks that radiate across the frame, creating a sense of motion and depth. The overall effect is modern and energetic.

THANK YOU!