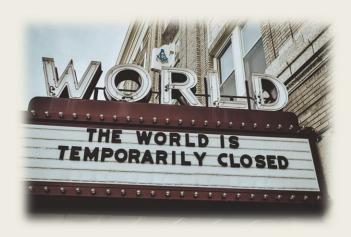


### (a bit of) CONTEXT ...

Carbon (CO<sub>2</sub>) Emissions | Key Global Warming contributor

The Paris Agreement | 2015 International Treaty on Climate Change

Current State of the World | Pandemic -- Coronavirus/COVID-19, since 2020





**Silver Lining |** Global Carbon Emissions are down by 6%, (International Energy Agency, (IEA))

Back To Reality | 2021: Global Carbon Emissions are set rebound at a record setting 5% (1.5 billion tonnes) as the World "re-opens", (IEA)

Record Setting | 2010: Carbon Emissions increased by 5.9% (30 billion tonnes, (TIME, Reuters, IEA), at the turn of the Great Recession, 2007-2009 Is there a *link*between Carbon
Emission
activity <u>and</u>
World Events?

### FOCUS AREA(s):

- ☐ Carbon Emissions By Geographical Region
- ☐ Time Period: 2007 2012
- ☐ World Events:
  - ☐ Great Recession 2007-2009
  - ☐ Economic Crisis of 2012

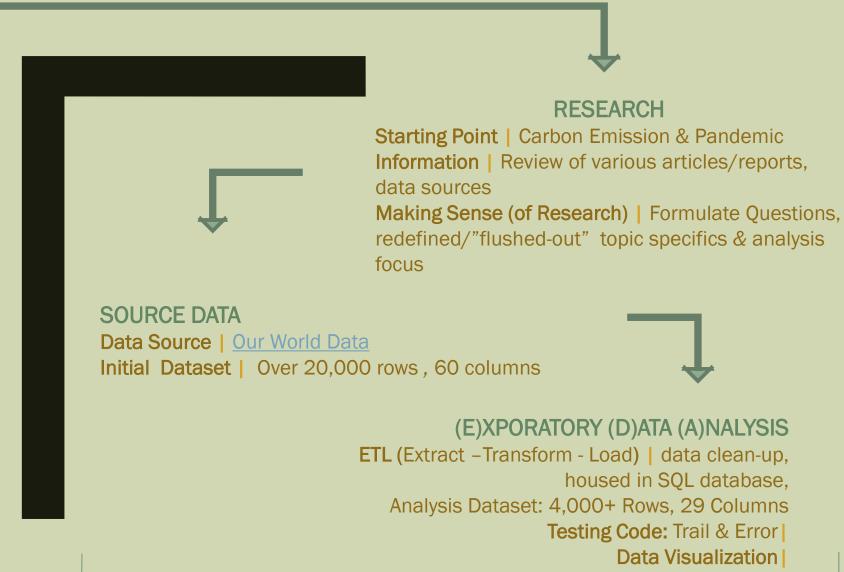
# (THE) PROCESS

RESEARCH

SOURCE DATA

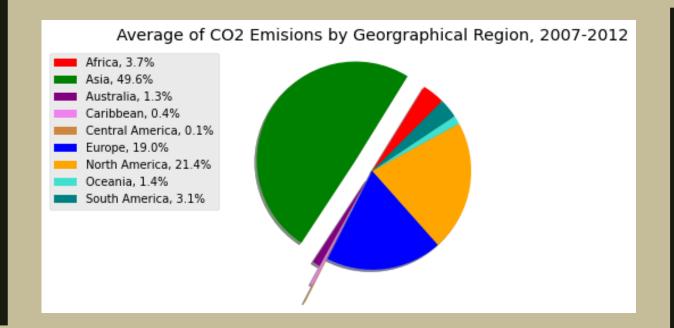
EDA

**FINDINGS** 



#### Methods & Tools

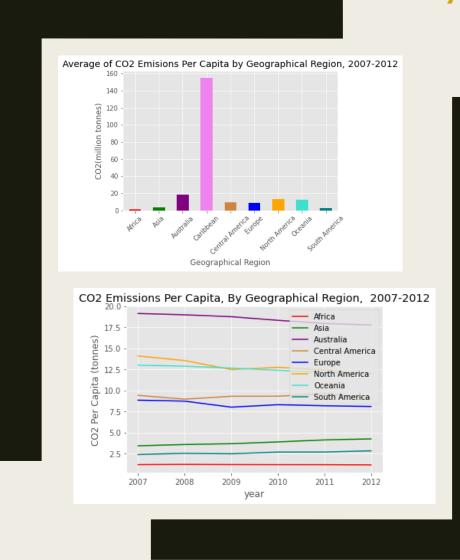
pgAdmin4 v5, PostgreSQL | Python, Python Libraries: Pandas, Matplotlib, SQLAlchemy, Psycopg2 Microsoft Excel, PowerPoint | Jupyter Notebook | VS Code 1.54.3

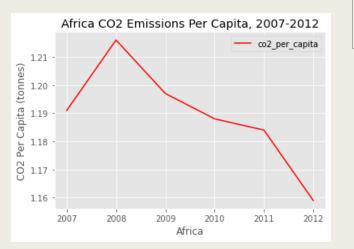


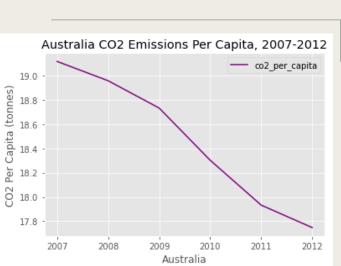
### **FINDINGS**

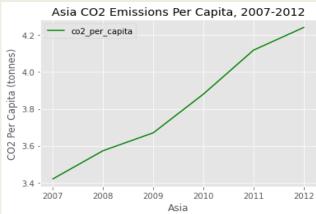
Asia, North America, and Europe ranked among the *Top 3 emitters* of Carbon Emissions

### ADDITIONAL FINDINGS, 2









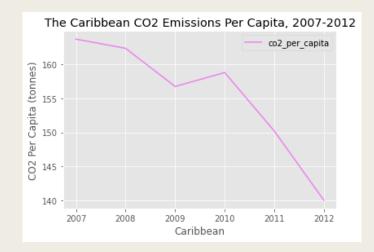
Africa's CO<sub>2</sub> output were quite strong in 2008

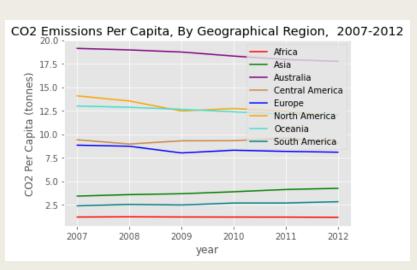
Asia had a slight dip in 2009

While high levels on record, **Australia** too, has seen *carbon emissions* decline

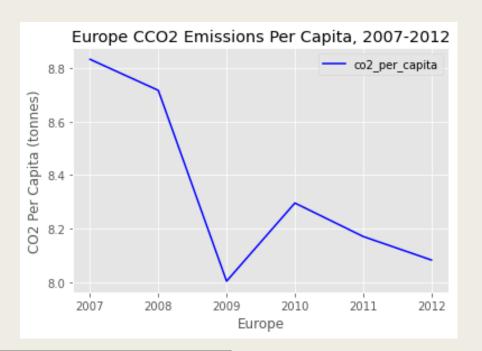
Whitney D. Gardner | | April/May 2021 Final Project/Columbia University Data Analytics Boot Camp GitHub: SoWhitIs

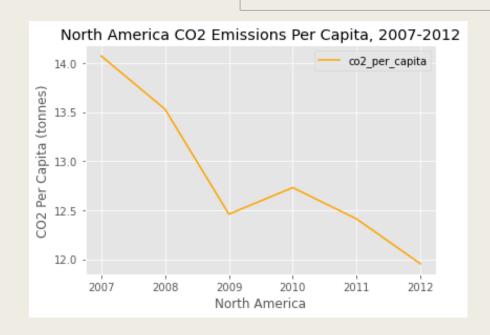
# ADDT'L FINDINGS, 3



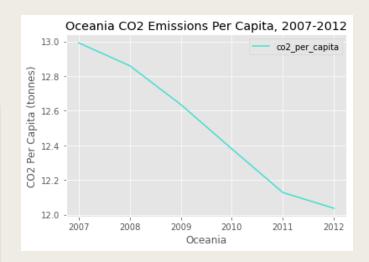


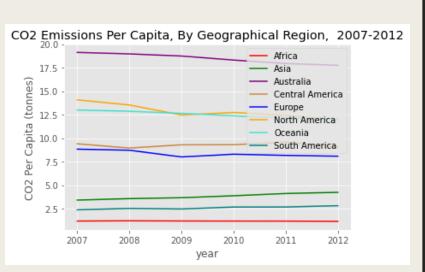
Whitney D. Gardner | | April/May 2021 Final Project/Columbia University Data Analytics Boot Camp GitHub: <u>SoWhitIs</u> The Caribbean,
North America &
Europe, peaked
emissions in
2010, but
showed steady
decline the
following year





# ADDT'L FINDINGS, 4

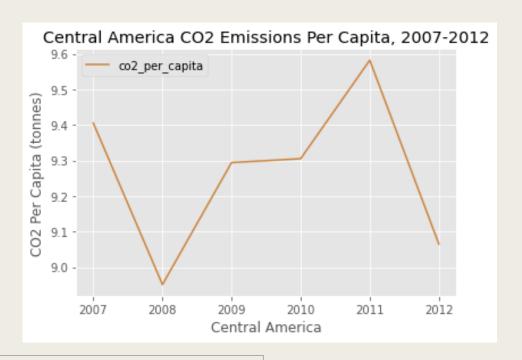


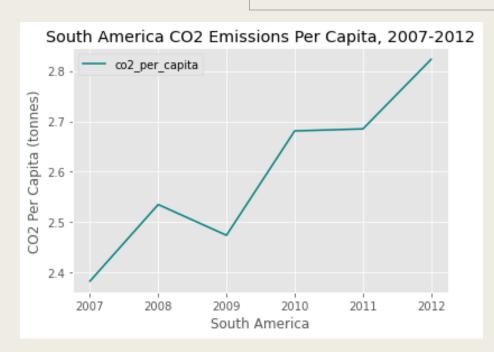


Whitney D. Gardner | | April/May 2021 Final Project/Columbia University Data Analytics Boot Camp GitHub: SoWhitIs Oceania has showcased a steady decline, since 2007

Central America's emissions increased in 2009, and remained in 2010

While South America presented a step-shaped progression between 2009 - 2011





#### NEXT ITERATION OF ANALYSIS

### FOCUS AREA(s):

- ☐ Carbon Emissions By Geographical Region
  - ☐ By Carbon Emissions Type
- ☐ Time Period: 2007-2012
- ☐ World Events:
  - ☐ Great Recession 2007-2009
  - ☐ Economic Crisis of 2012

### ... REWIND

**World Events Impacting Carbon Emissions** | Carbon Emissions are dependent on human behavior. If there is an event that alters the former, human activity, positively or negatively, Carbon Emission will, too, become affected.

Old Habits Die Hard | Many industries and countries still rely heavy on traditional sources of energy for production, trade, and consumption.



Is there a *link*between Carbon
Emission
activity <u>and</u>
World Events?

Short answer -- yes!

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