



WORLD EVENTS & *CARBON EMISSIONS*

(a bit of) CONTEXT ...

Carbon (CO₂) 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 and
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

SOURCE DATA

Data Source | [Our World Data](#)

Initial Dataset | Over 20,000 rows , 60 columns

RESEARCH

Starting Point | Carbon Emission & Pandemic Information | Review of various articles/reports, data sources

Making Sense (of Research) | Formulate Questions, redefined/"flushed-out" topic specifics & analysis focus

(E)XPORATORY (D)ATA (A)NALYSIS

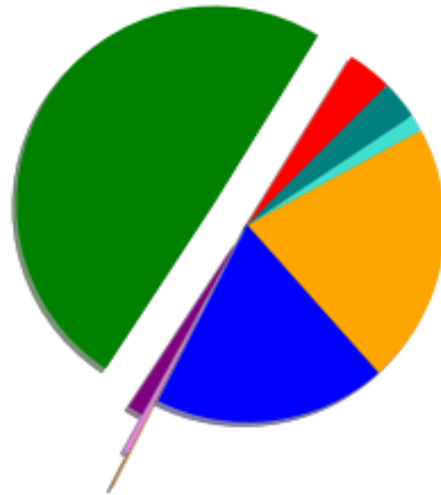
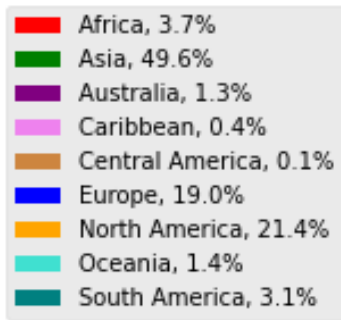
ETL (Extract - Transform - Load) | data clean-up, created schema, housed in SQL database, Analysis Dataset: 4,000+ Rows, 29 Columns

Testing Code: Trail & Error |
Data Visualization |

Methods & Tools

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

Average of CO2 Emissions by Georgraphical Region, 2007-2012

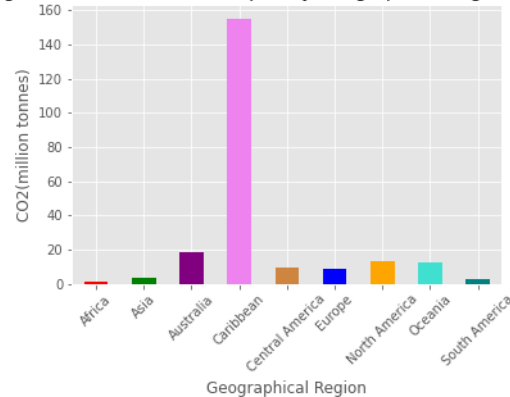


FINDINGS

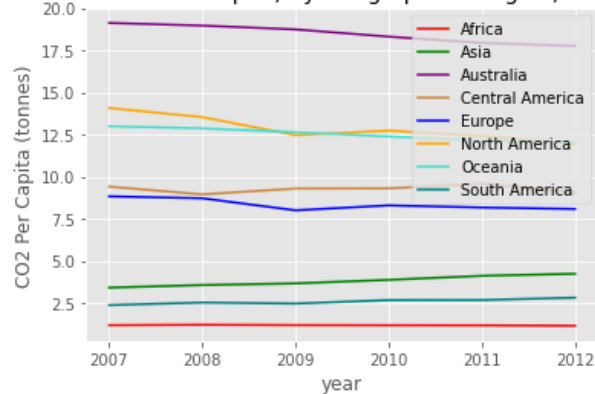
Asia, North America, and Europe ranked among the **Top 3 emitters** of Carbon Emissions

ADDITIONAL FINDINGS, 2

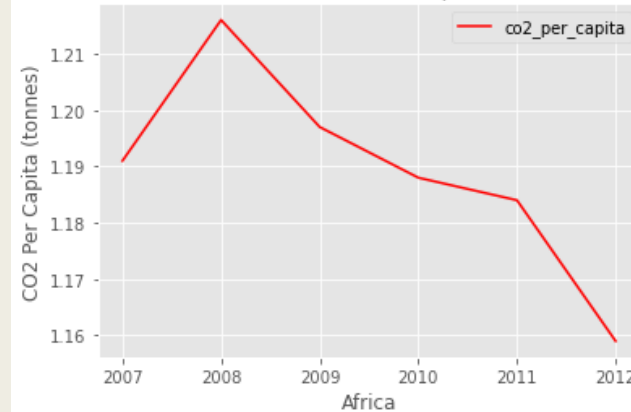
Average of CO2 Emissions Per Capita by Geographical Region, 2007-2012



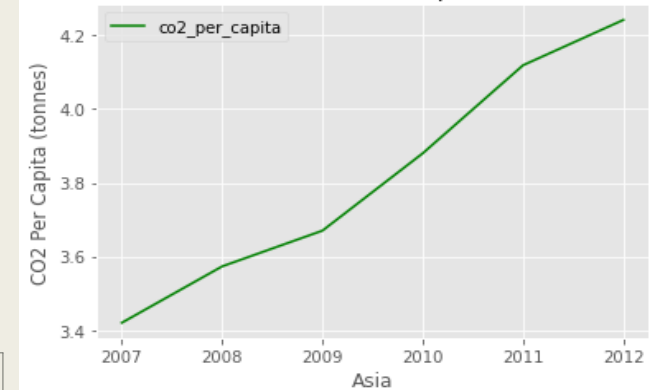
CO2 Emissions Per Capita, By Geographical Region, 2007-2012



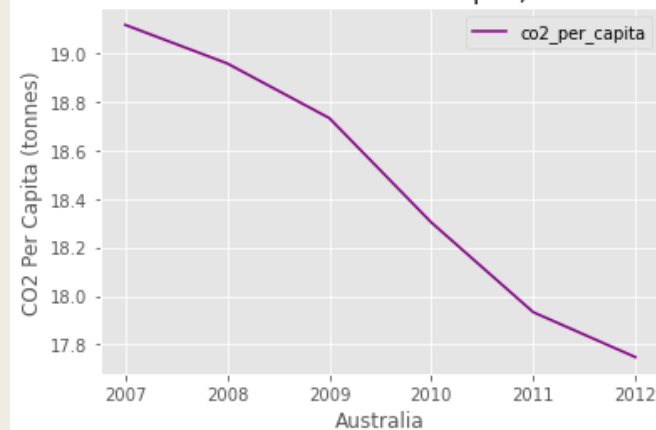
Africa CO2 Emissions Per Capita, 2007-2012



Asia CO2 Emissions Per Capita, 2007-2012



Australia CO2 Emissions Per Capita, 2007-2012

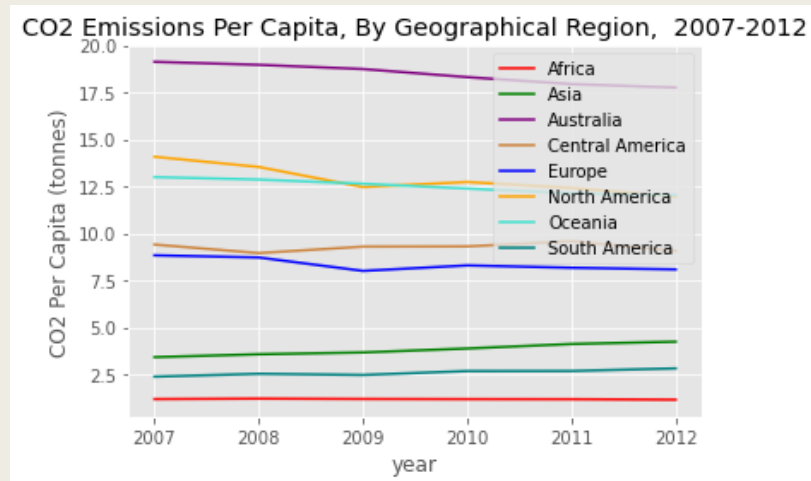
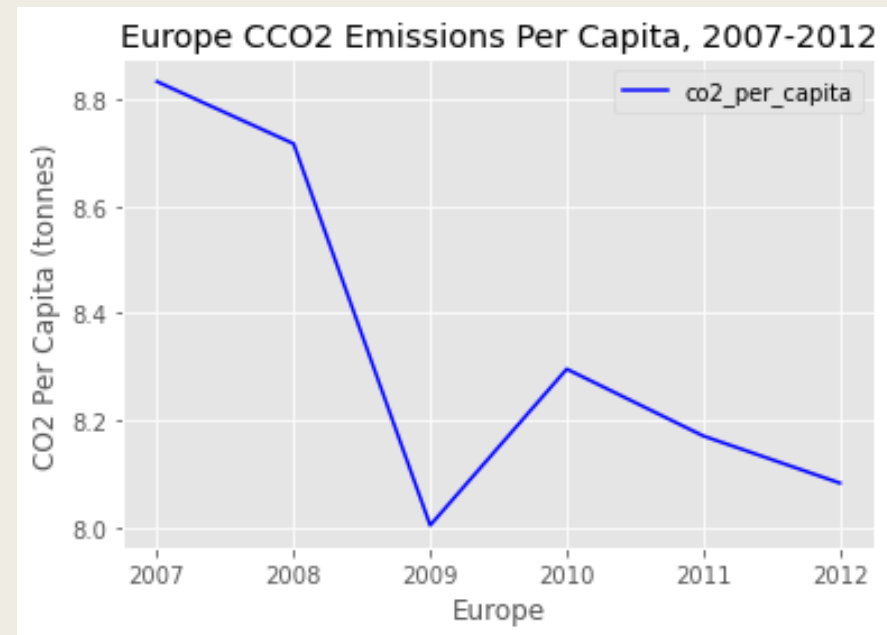
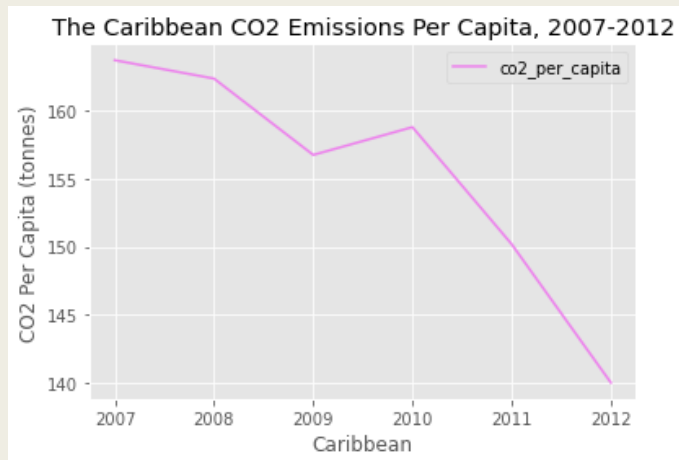


Africa's CO₂ output were *quite strong* in 2008

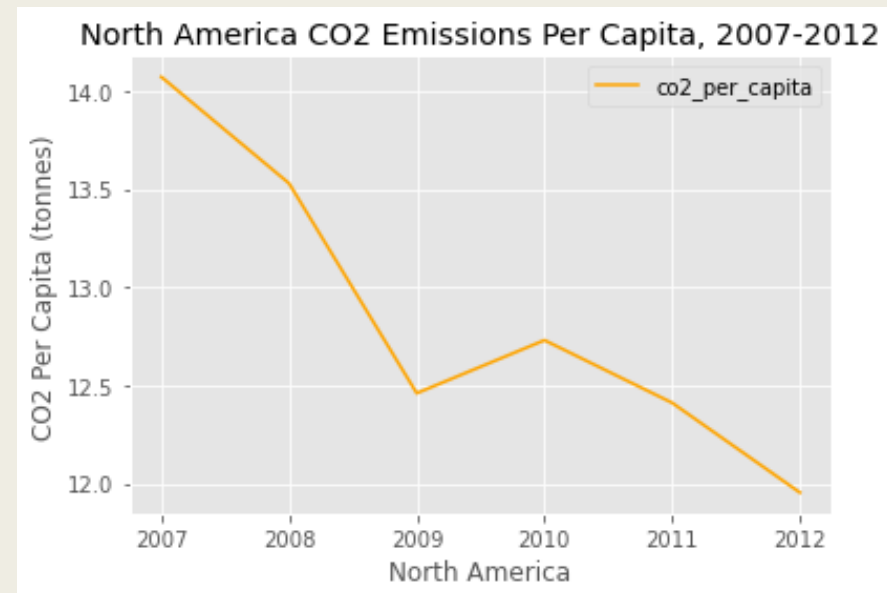
Asia had a *slight dip* in 2009

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

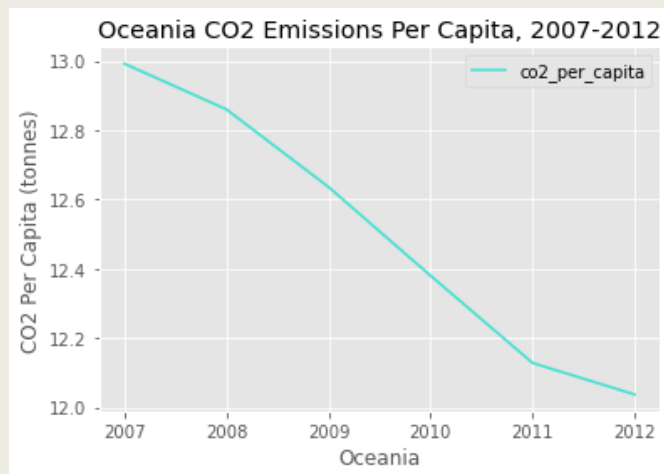
ADDT'L FINDINGS, 3



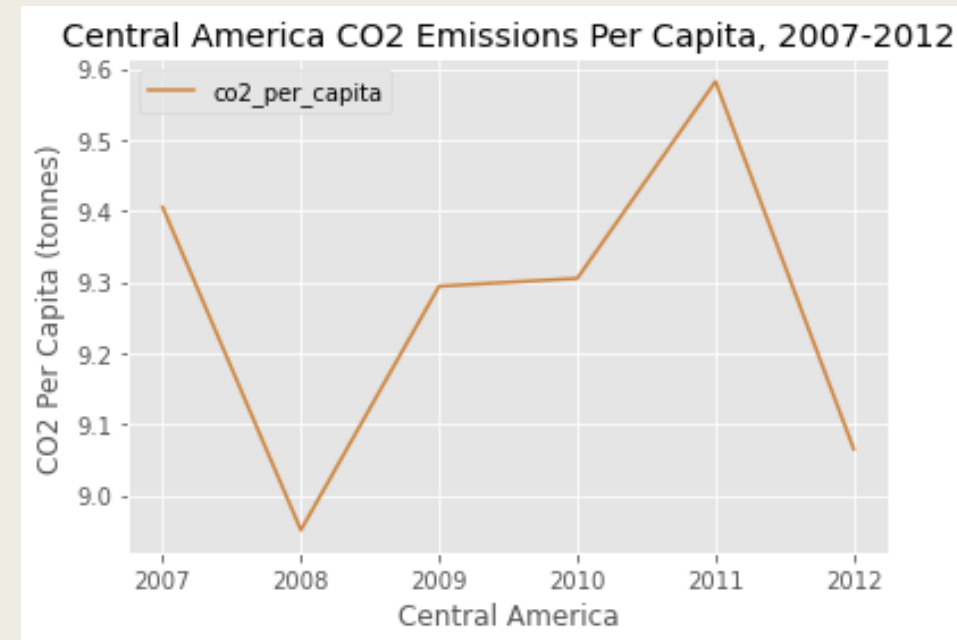
The Caribbean, North America & Europe, *peaked* emissions in 2010, but showed steady decline the following year



ADDT'L FINDINGS, 4

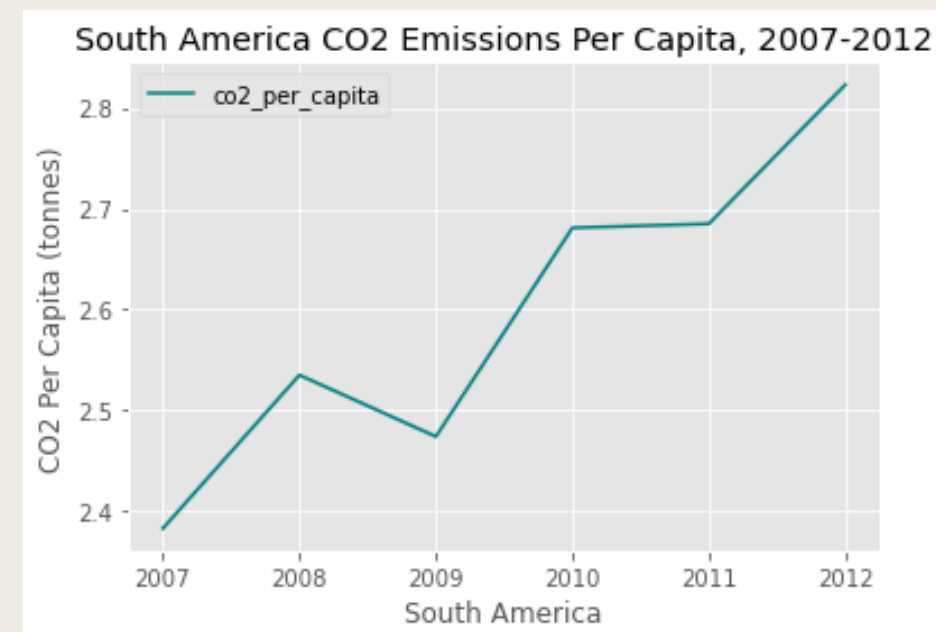


Oceania has showcased a *steady decline*, since 2007

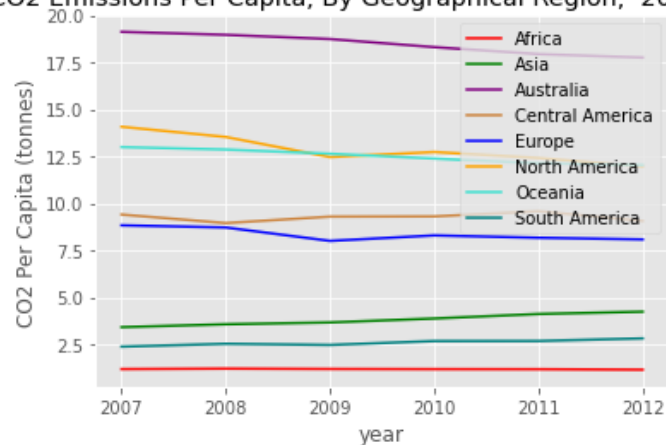


Central America's emissions *increased in 2009*, and remained in 2010

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



CO2 Emissions Per Capita, By Geographical Region, 2007-2012



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 and
World Events?

Short answer
-- *yes!*

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