

A black silhouette of a person's head and hand in profile, facing right. The person is holding a lit cigarette in their right hand, and a large, white, stylized cloud of smoke is rising from the cigarette. The background is a solid teal color.

**“Where do you see  
your planet in 5 years  
from now on?”**

**Yagmur Bali**  
**Istanbul Data Science Academy**

**An analysis of atmospheric CO2 and CO2 emissions from fossil fuels data**



**Idea:** understanding the reason of increasing Carbon Dioxide in the atmosphere

**Solution:** using atmospheric CO<sub>2</sub> data along with CO<sub>2</sub> emissions from fossil fuels data to find the human impacts in increasing CO<sub>2</sub>

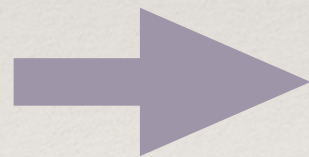




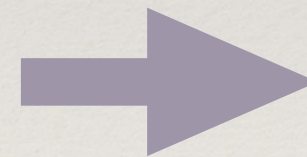
# METHODOLOGY



Analyze the  
rate of CO<sub>2</sub> in  
the  
atmosphere  
for years



Analyze the  
amount of  
CO<sub>2</sub> from  
fossil fuels for  
developing  
countries as  
regards the  
different fuel



Analyze the  
amount of  
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# **Key Assumptions**

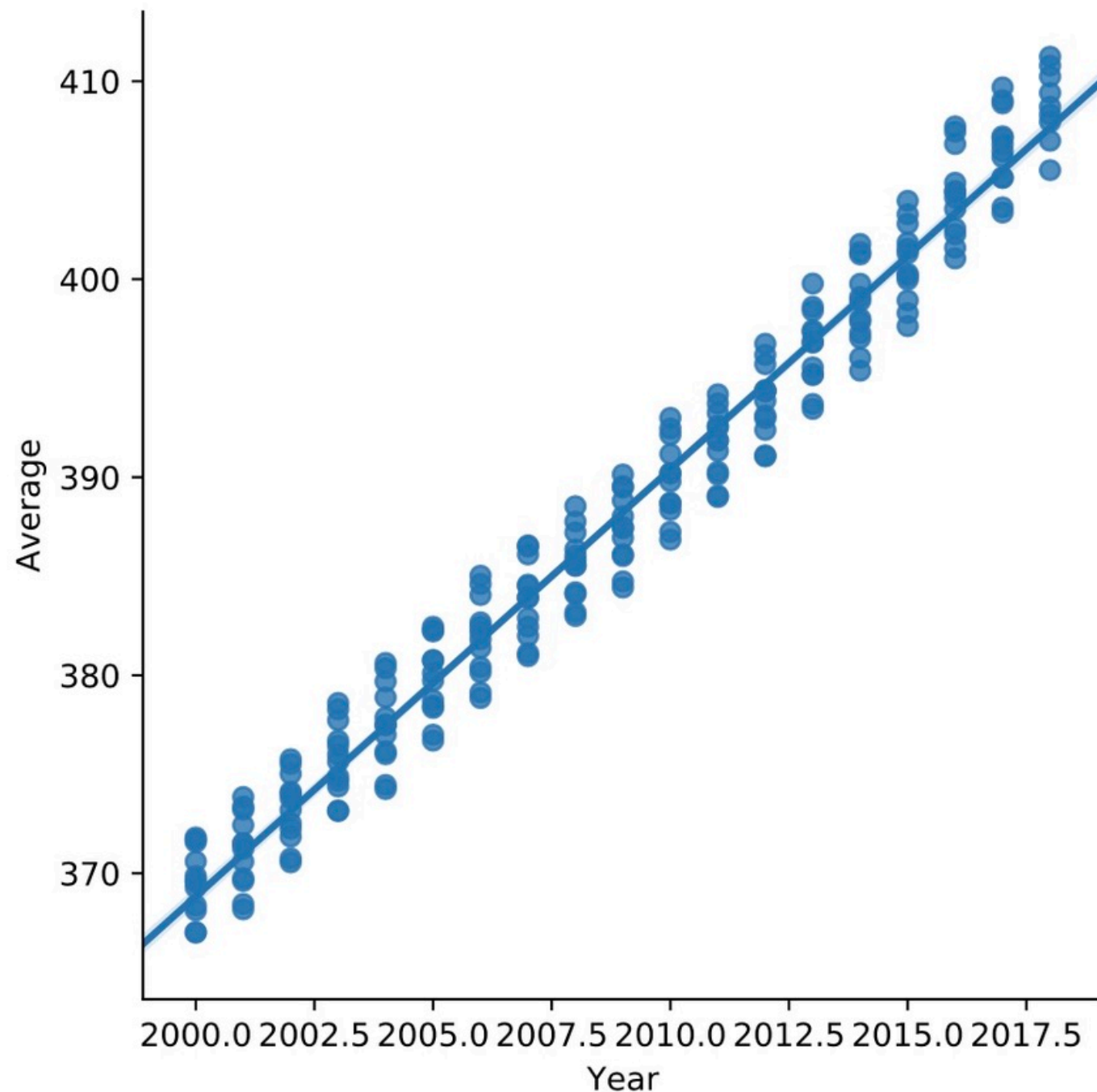
**Dry Air Mole Fraction (ppm)** - the number of the molecules of carbon dioxide divided by the number of all molecules in air

**Fossil Fuel Types** - solid fuel (coal, brown coal/lignite), liquid fuel (petrol), gas fuel (natural gas)

**Countries** - grouped by developing countries (Turkey, Mexico and Brazil) and developed countries (USA, UK and Canada)



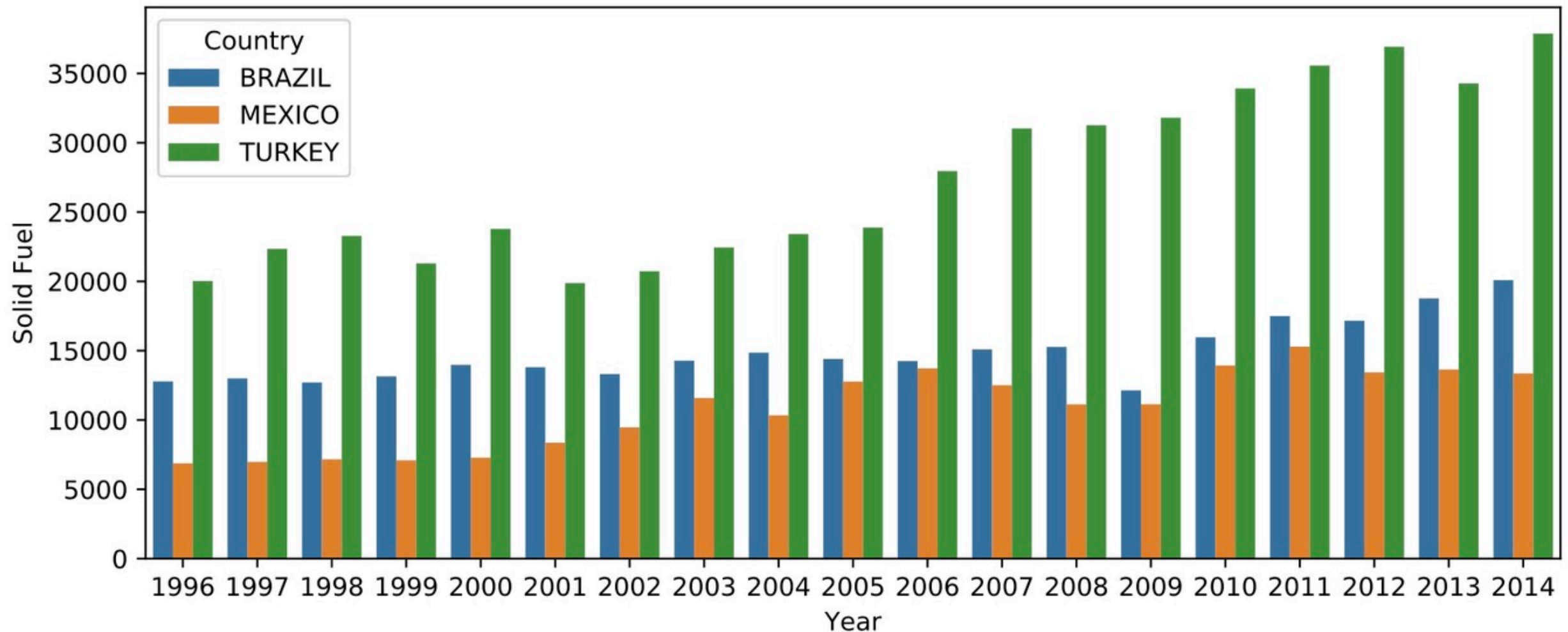
# Monthly Average CO2



**November 2019: 410.88 ppm**  
**November 2018: 407.89 ppm**

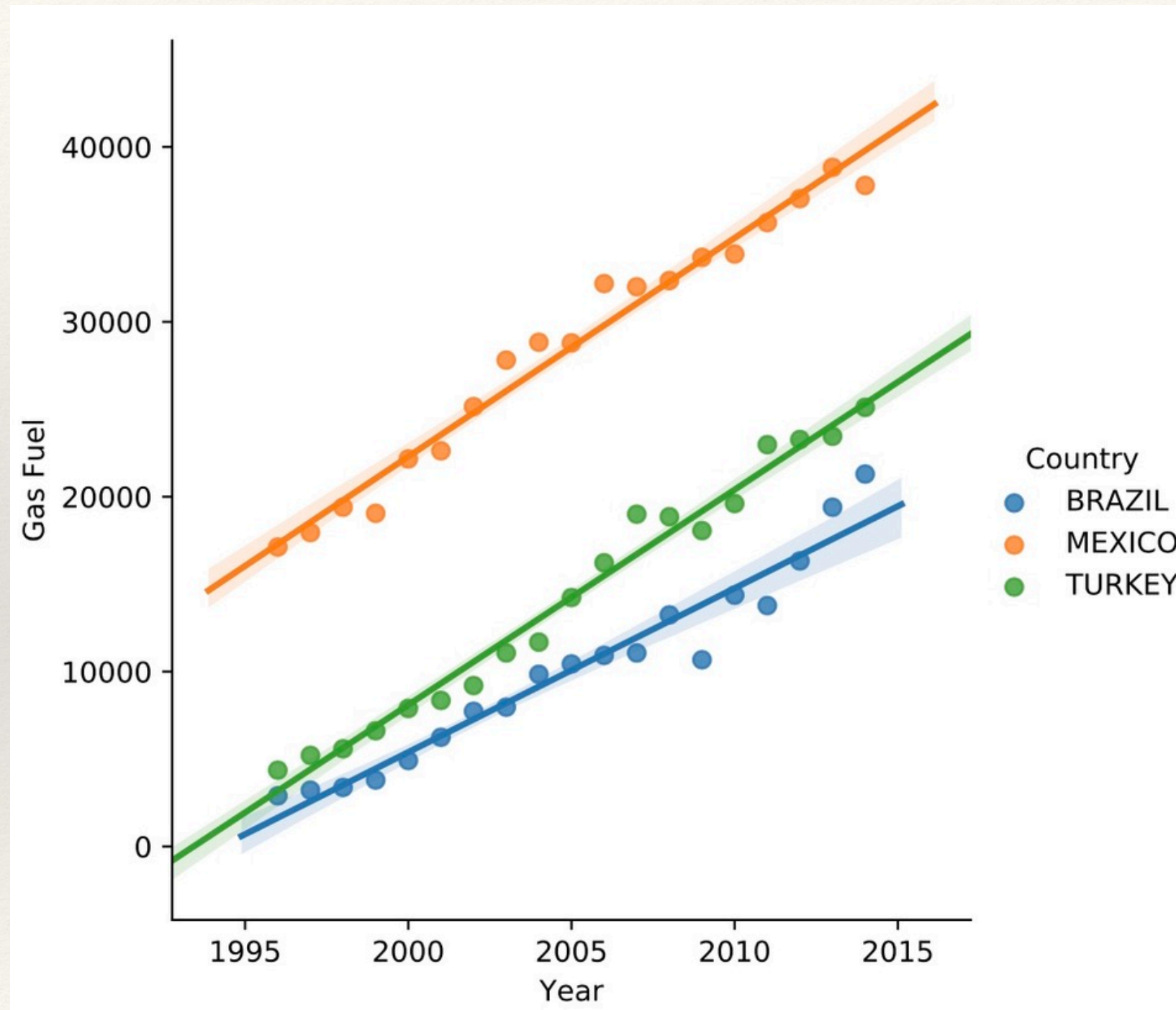


# Solid Fuel Emission for Developing Countries

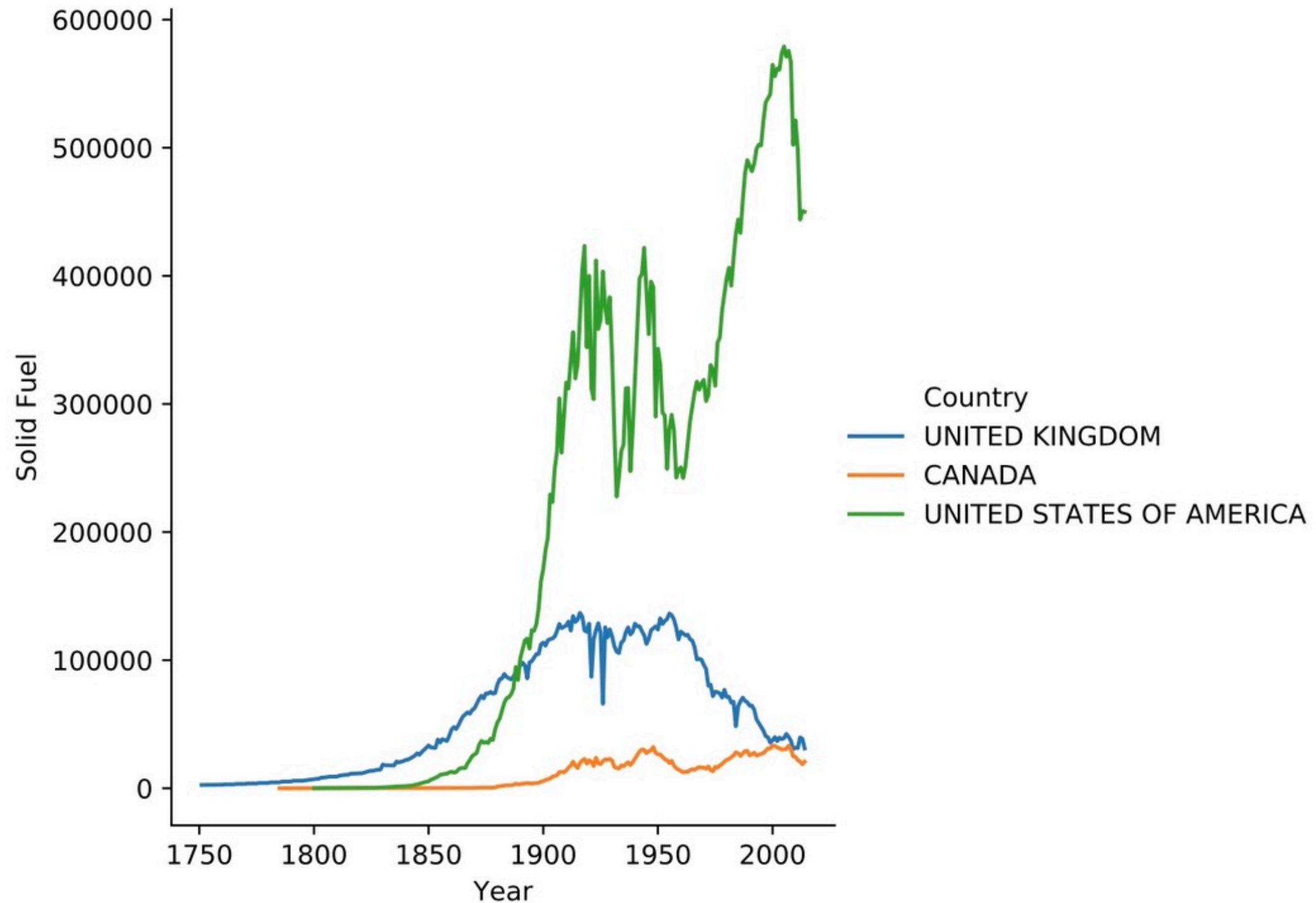




# Gas Fuel Emission for Developing Countries

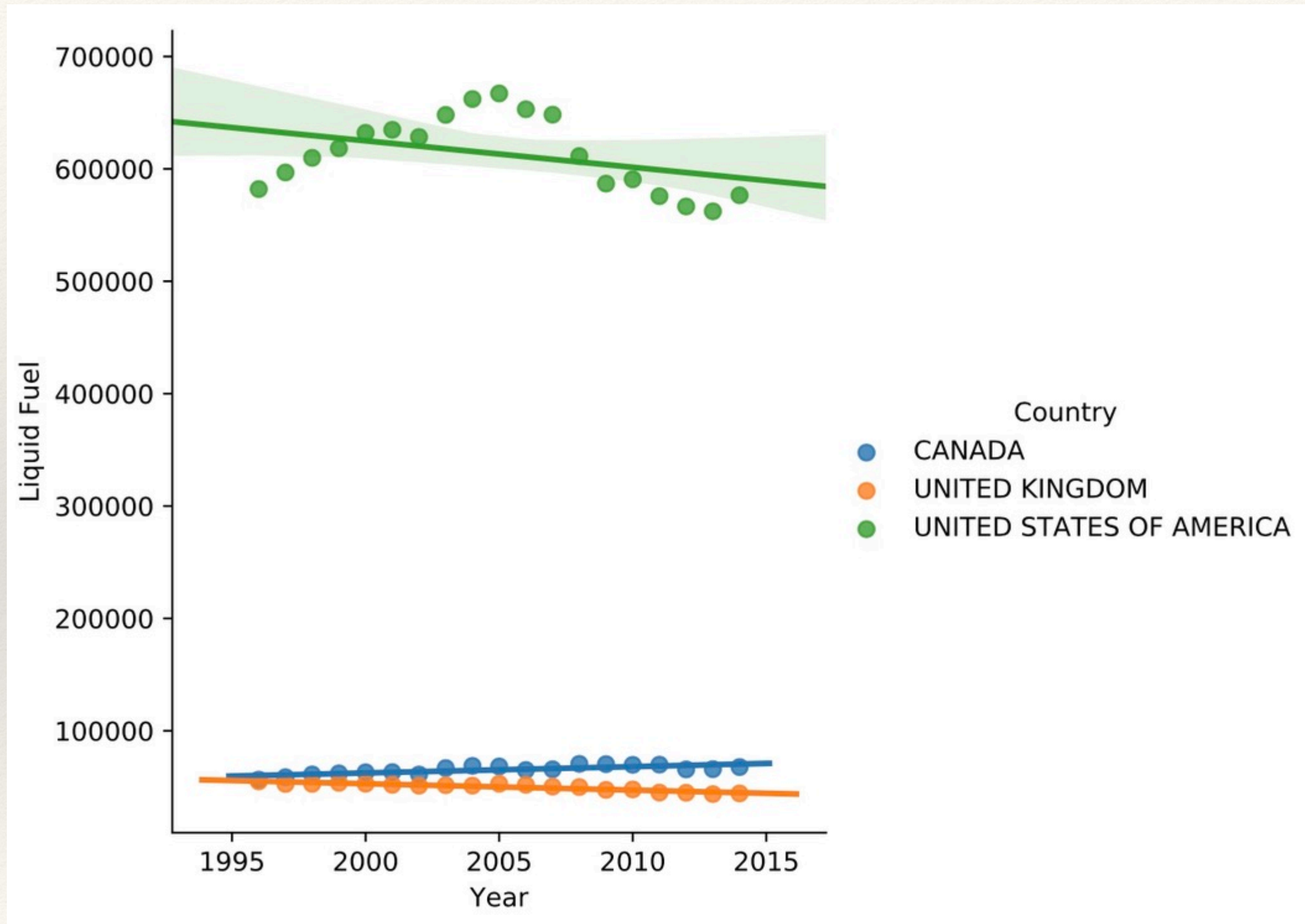


# Solid Fuel Emission for Developed Countries





# Liquid Fuel Emission for Developed Countries





# Future Work

- Predicting **what happens if fossil fuels are replaced with renewable resources** using neural networks
- Developing models that allows **optimizing energy use** or track the carbon footprint
- Developing a model that will **observe the effects of climate to human** which will combine scanned satellite cloud data and ground pollution with ML algorithms





**Thank You**





Jon Berkeley