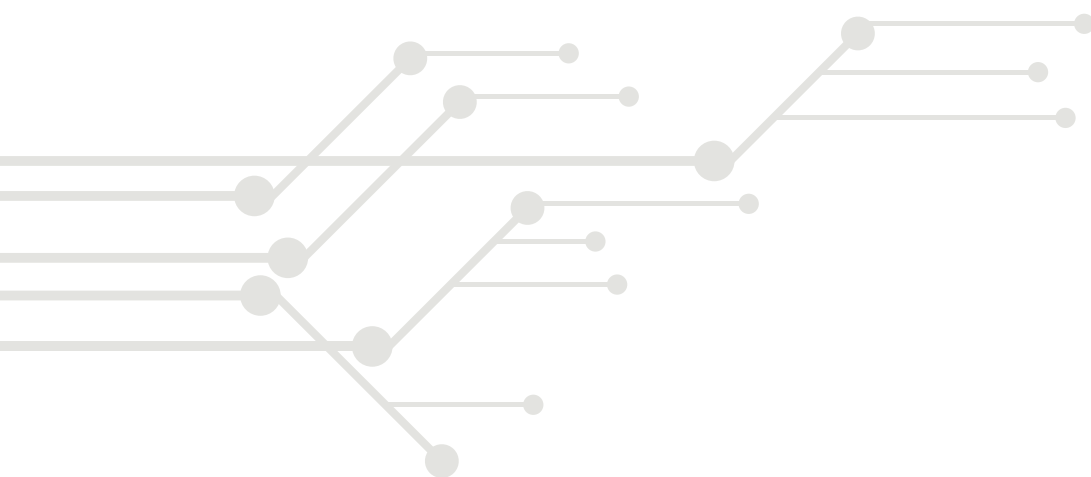# Green AI

Our
Team

Green AI

Ghadah Aljohani
Computer science

Wasan Alomar
Artificial intelligent

Deema Aladwani
Graphic designer

Nouf Almalki
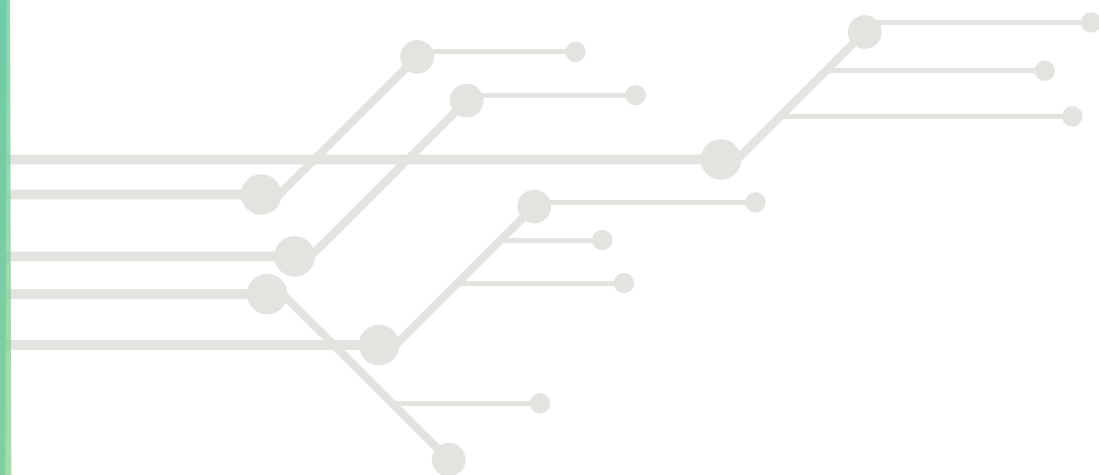Data analytics specialist

Bassam Rajhi
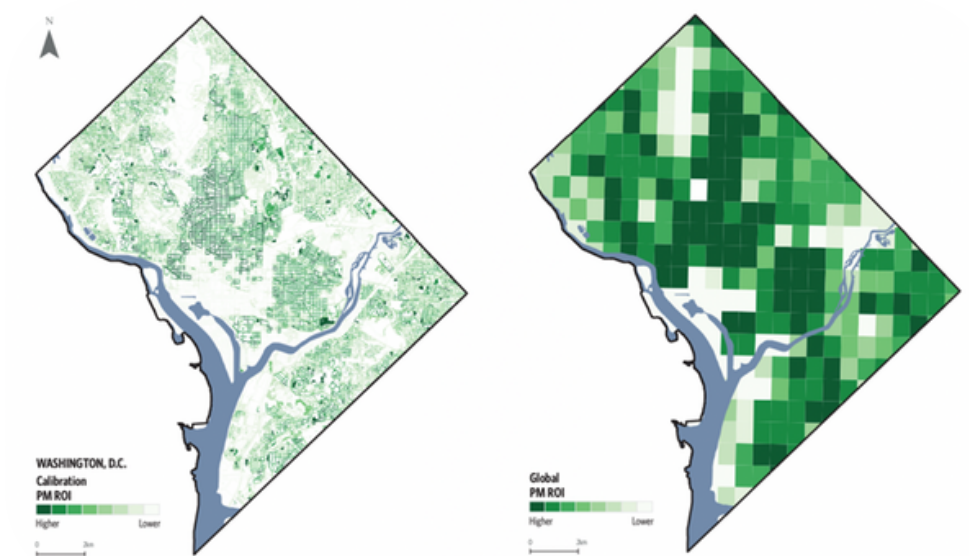Doctor of pharmacy

Latifa Alhusainan
Computer science

Our strategy is centered on Vision 2030, which aims to plant a billion trees more efficiently, reduce global warming, and create green spaces by using geographical data to determine which regions need to grow trees and how many depending on parameters such as air pollutant PM2.5 and temperature. In Dammam, we started our model and utilized it to train the LSTM model.
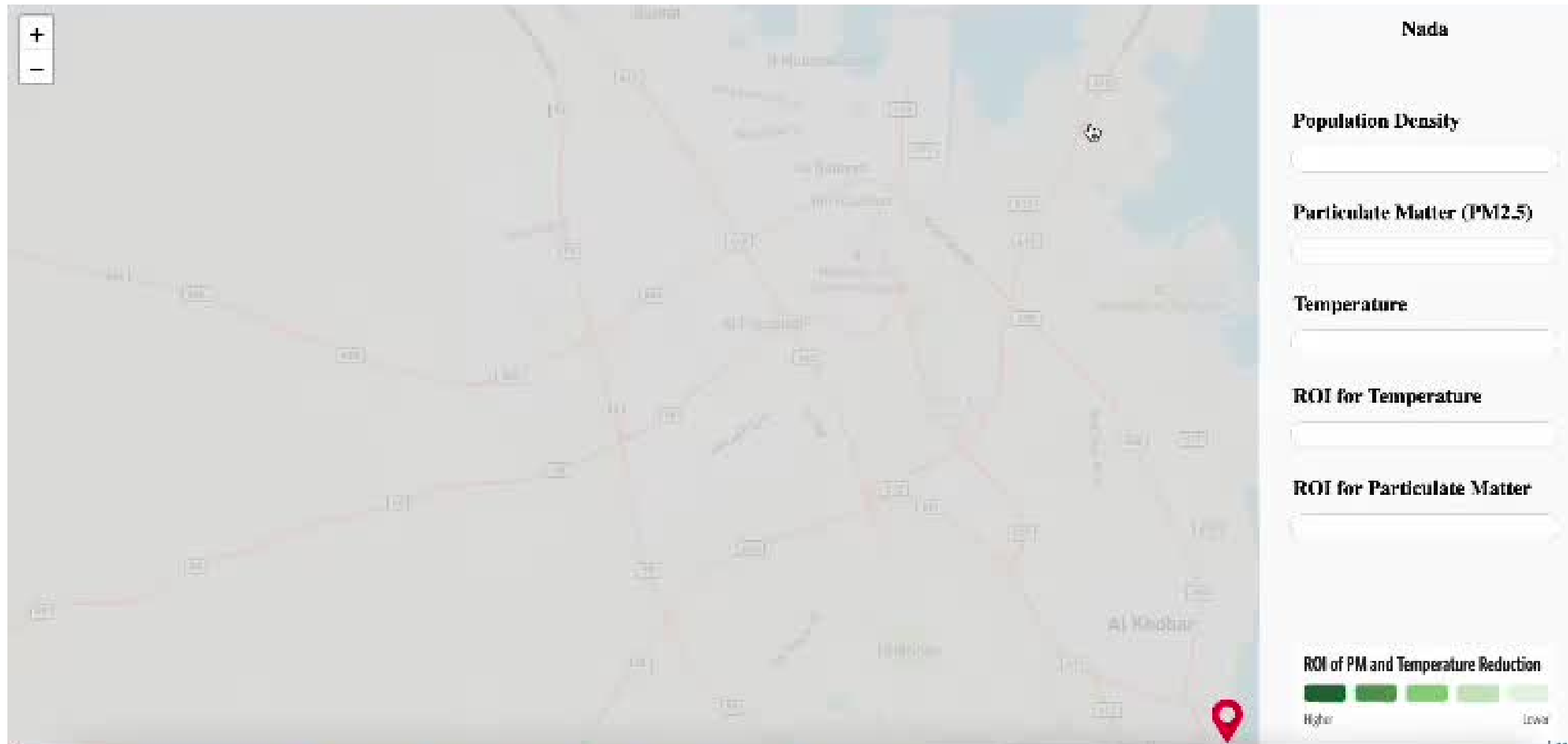
Abstract

SOLUTION

LSTM

We create a deep learning model that predicts how many trees should be planted in each city based on population density, air pollution, and heat, as plants cool the area and help reduce global warming. We applied the idea to the data of the Dammam region to determine the temperature and pollution, and to determine whether it needs a lot of trees or not

SOLUTION

Web

Our Mission and Vision

Mission

- Plant trees as quickly as possible.
- lowering global warming
- Using cutting-edge community technology

Vision

- To make the Kingdom of Saudi Arabia a leader in environmental protection.

Evidence of the idea's viability

Planting Healthy Air

The Nature Conservancy report utilizes population density statistics and air pollution scores from Washington, DC to build a map that shows Where will you obtain highest Return on investment for tree planting.

Positive Effect

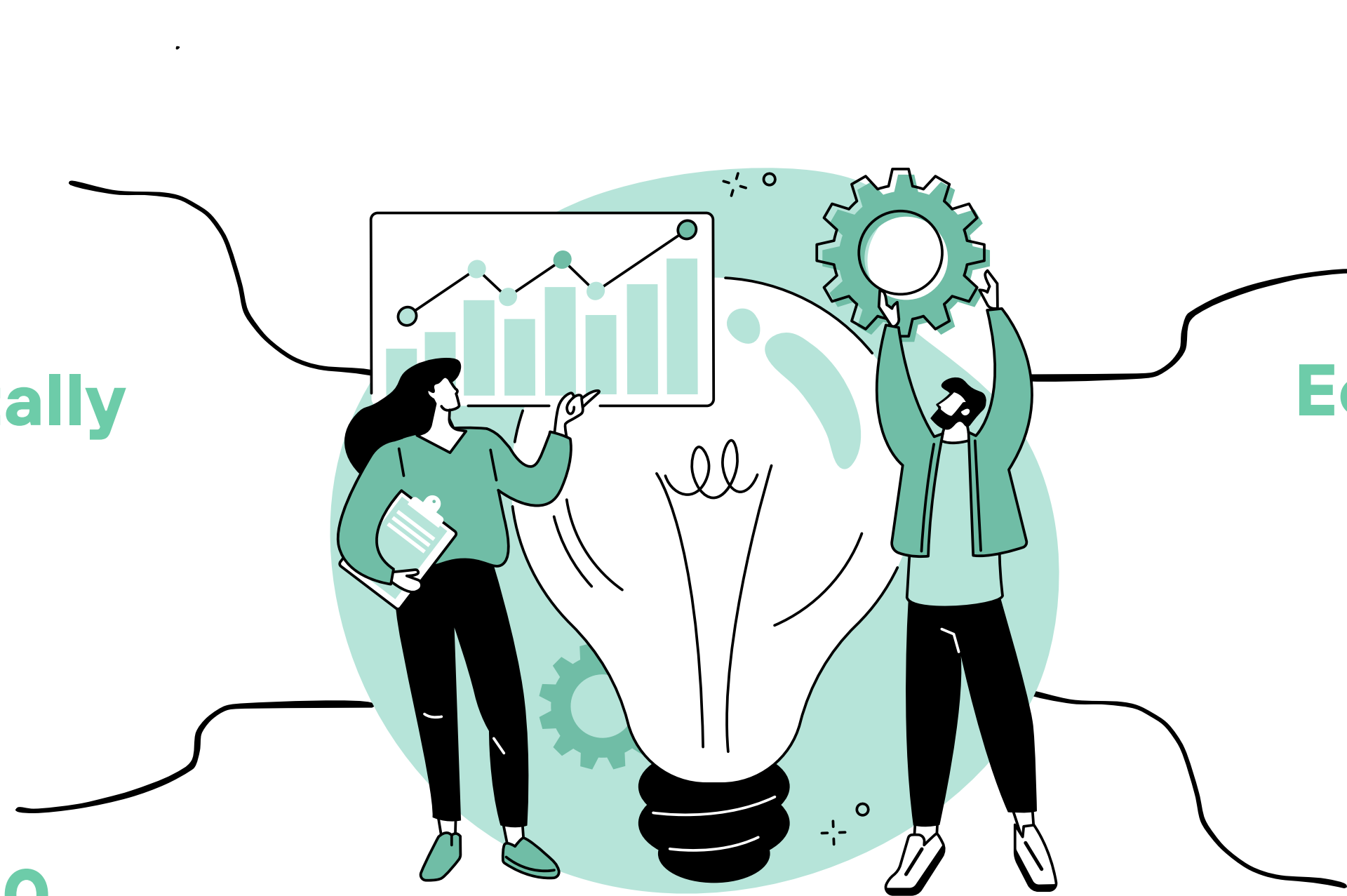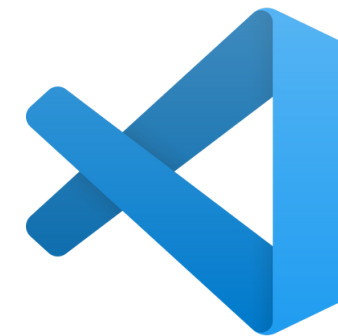Environmentally

Vision 2030

Economically

Health

Tools and Languages

Languages

Tools

Parameters

Optimizer

Optimization is a critical procedure because it compares the prediction and the loss function and optimizes the in outweigh.

Epochs

Taken 50 epochs

```
+ Code    + Markdown   |  ▷ Run All   ≡ Clear All Outputs   ↻ Restart   |   ▣ Variables   ≣ Outline   ⋯
▷ ∨
        df['particulate_matter'] = 15
[61]
                                                        + Code   + Markdown

        df['temperature'] = 24
[14]
⋯    /usr/local/lib/python3.7/dist-packages/geopandas/geodataframe.py:1351: SettingWithCopyWarning:
     A value is trying to be set on a copy of a slice from a DataFrame.
     Try using .loc[row_indexer,col_indexer] = value instead

     See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/index
       super().__setitem__(key, value)


        df['ROI_temperature'] = (df['temperature'] * df['population_density_index']) / 25
[76]
```

ROI

Limitation & Future Work

As a future direction, we aspire to add more features to the system that will improve our environment like : integrate more features into our prediction model.

Summary

Key partnerships

Sadaia

Aramco

Sabic

Telecommunications companies

Ministry of Environment, Water and Agriculture

National Center of Meteorology (NCM)

Open data platform

Key activities

Reducing the phenomenon of global warming

Improving the quality of life in cities

Increasing green spaces-p

Key materials

Data on temperature levels, population density, PM2.5 pollutants, and ROI equation

Proposed values

Creating a platform that provide the number of trees that should be planted in the area to reduce the phenomenon of global

Identifying areas in need of planting to facilitate the increase of green spaces

Improving quality of life

Customer relationships

Long-term relationship

Channels

AI-powered website

Social media platforms

Customer segments

Data stakeholders

Municipal sector

Agriculture enthusiasts

Cost structure

Product development

Labor costs

Revenue sources

Investors

Providing data to interested parties

Collaborating with agriculture enthusiasts

Providing internet services through telecommunications companies

THANKS!!