EcoLearn: Community-Centric Climate Action through Education

Problem Statement:

Delhi, the capital city of India, grapples with severe environmental challenges characterized by heightened pollution levels and an escalating frequency of heatwaves. Recognizing the need for a community-centered approach to address these issues, the current state of climate education reveals a lack of decentralization, often overlooking local concerns and evidence.

This scenario highlights a significant gap in awareness and education, hindering the community's ability to comprehend and effectively respond to climate change. In response, the "EcoLearn" project aims to revolutionize climate education by decentralizing it based on local evidence and solutions. This involves developing module that specifically address local climate issues, with interactive learning experiences.

Objective:
The "EcoLearn" project seeks to bridge existing gaps by empowering the local community with knowledge and tools to comprehend climate change, generate evidence for informed decision-making, and create impactful local solutions.

Project Steps and Activities:

Community Awareness Campaign:

- Conduct comprehensive awareness campaigns through diverse channels, including workshops and seminars.

Curriculum Development for Evidence Generation:

- Develop a specialized curriculum that centers on climate-related issues specific to Delhi, employing interactive visualization techniques and comprehensive data analysis. This curriculum will delve into various aspects, including the examination of rising air pollution

Data Use and Analysis:

- I utilized open data related to pollution over the years.
- Implemented data visualization using tools such as matplotlib and plotly for interactive presentations.
- Conducted Exploratory Data Analysis (EDA) using Pandas, descriptive statistics, and visualizations to showcase trends and patterns in air quality data.
- Included additional data analysis and visualization related to rising heatwaves, urbanization, etc., using secondary resources.

Community-Led Solution Implementation:

- Include community-led projects where participants implement local solutions derived from their evidence generation efforts.

Expected Outcomes:

- Increased community awareness about climate change in Delhi NCR through engaging workshops.
- Empowered community members with practical skills in evidence generation through data science.
- Encouraged the development of localized solutions to address specific climate challenges.
- Strengthened community resilience and preparedness in the face of climate change impacts.

Sustainability Plan:

- Establish strategic partnerships with local organizations and authorities to integrate the curriculum into existing community programs and educational institutions, ensuring the long-term impact and sustainability of the project.

References:

National Institute of Disaster Management - Heat Wave Action Plan
Envis Centre on Atmospheric Sciences - Air Pollution Database