

6_4_NASA GROUP PROJECT

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Hi!

Greenhouse gases are purging the Earth's atmosphere. Check how your neighbourhood is doing and champion for a difference.
Change starts with you!

Per Capita CO₂ Emissions



The Greenhouse Effect Tracker

The sun touches everything. It's the sole star influencing the movement of air masses within the closest proximity to earth. The movement of air masses and the wind mixes up air thus populating locally emitted greenhouse gases all over the globe. The greenhouse effect tracker lets planetarians to minimize global warming by recommending actionable insights such as:

- Carpooling,
- E-bikes,
- Ridesharing,
- Utilizing solar chargers, and
- Small diet changes like meatless Sundays.

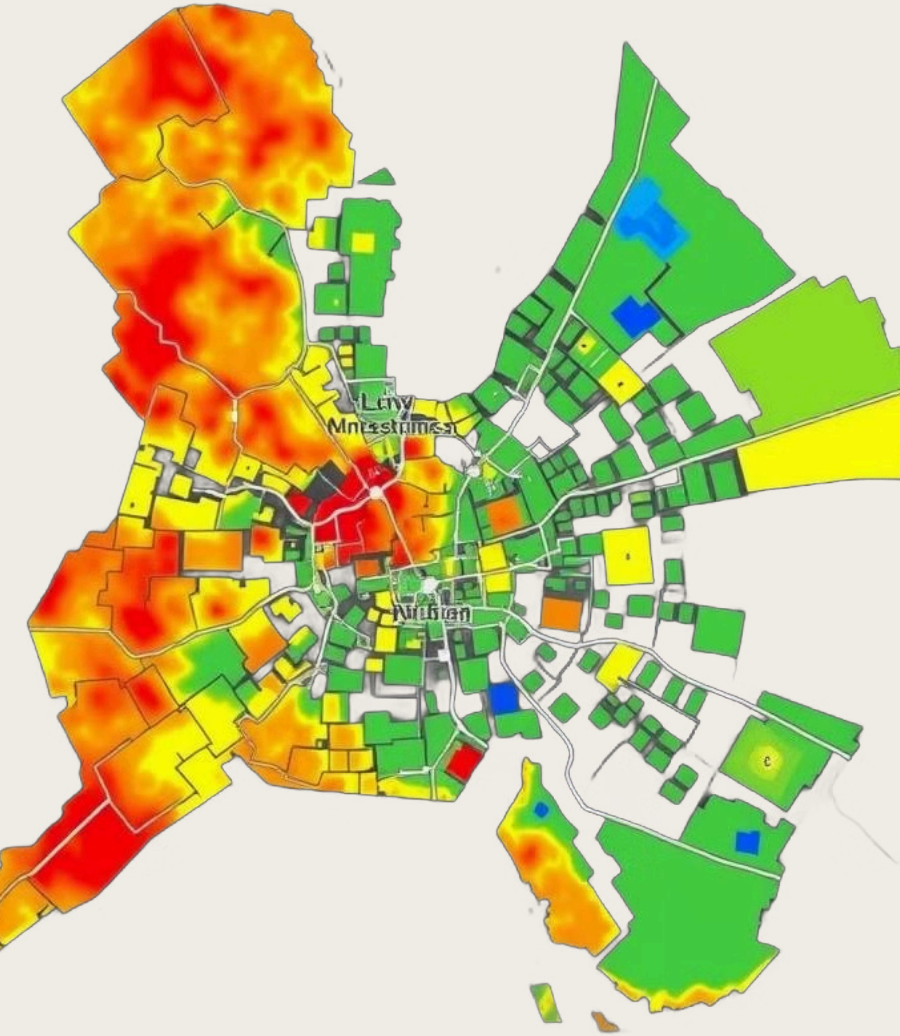
DEMO



GHGEffects.mov



Identifying Emissions Sources



1

Energy Production

Fossil fuel power plants are a major source of greenhouse gases.

2

Transportation

Vehicles, planes, and ships contribute significantly to emissions.

3

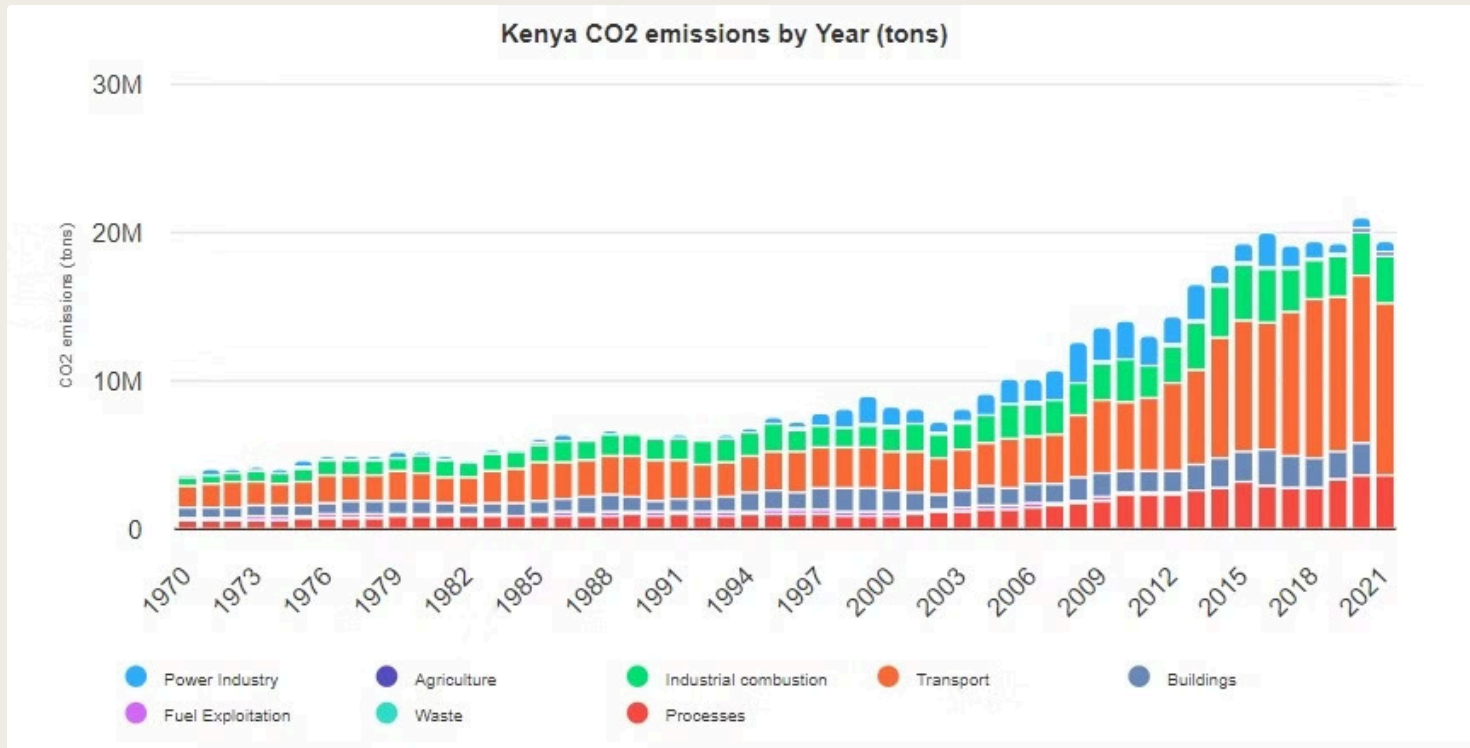
Industrial Processes

Manufacturing and mining are large sources of greenhouse gases.

4

Natural Greenhouse Gases

Volcanic activity



Challenge

1 Complexity of the Problem

Greenhouse gas emissions involve a complex interplay of human and natural sources and sinks.

2 Anthropogenic vs. Natural Emissions

Human-caused emissions are a primary driver of greenhouse gas increases.

3 Lack of Comprehensive Data

Obtaining accurate global data on emissions and sinks is a major challenge.

Satellite Data and Climate Modeling

Satellite Monitoring

Satellite-based sensors can provide detailed, global-scale data on greenhouse gas levels and other climate indicators.

Atmospheric Modeling

Advanced climate models can simulate the complex interactions between emissions, atmospheric chemistry, and environmental sinks.

Data Integration

Combining satellite data with climate models allows for more accurate mapping and understanding of greenhouse gas sources and sinks.



Who Benefits and How?

1 Policymakers

Better decision-making for climate regulations.

2 Researchers

Advanced tools for studying climate science.

3 Stakeholders

Profits generated as a service.

4 Citizens

Increased transparency about the sources of emissions.

Understanding greenhouse gas emissions and their sources is key to combating climate change. With this knowledge, policymakers can develop more effective regulations, researchers can improve climate models and simulations, and citizens can better understand their own carbon footprint. By mapping emissions and identifying the natural sinks that absorb these gases, we can take targeted actions to reduce our impact and build a more sustainable future.



The Path Forward



Collaboration

Bringing together data, expertise, and resources from various stakeholders is key to addressing the climate change challenge.



Innovation

Develop new technologies and approaches for greenhouse gas monitoring and mitigation will be crucial for the future. Leveraging AI.



Policy Frameworks

Informed policymaking, guided by the latest data and scientific understanding, will drive meaningful climate action.