

CLIMATE CHANGE EDUCATION TEACHERS' TRAINING

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Delivered by:

Farhan Jimba MOSHOOD
Taofiq Maijindadi IBRAHIM
Esther Omolara OLAYEMI
Musa Olatunbosun MUHALI
Bilqees Abiola SHITTU

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CLIMATE
CHANGE
EDUCATION

Catch Them Young: Climate Change Education in Primary Schools in Ilorin, Kwara State, Nigeria

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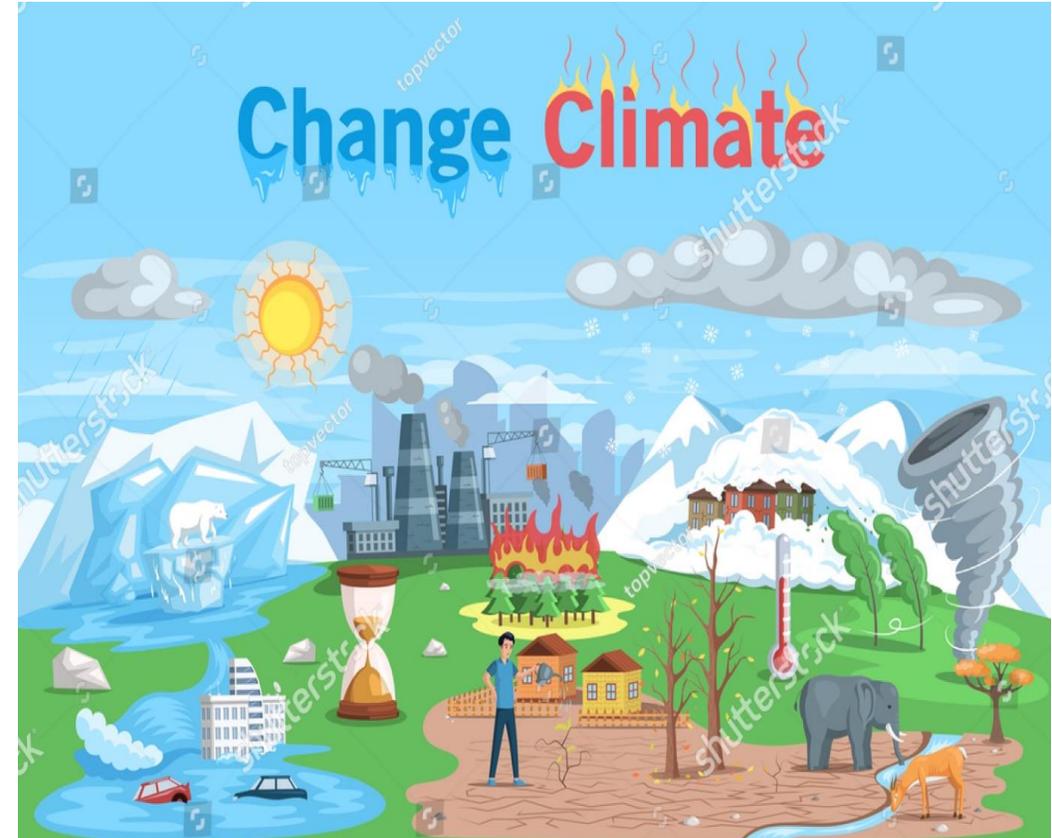
- GENERAL INTRODUCTION
- INTRODUCTION TO CLIMATE CHANGE
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GENERAL INTRODUCTION

- ABOUT THE PROGRAMME
- WHY CLIMATE CHANGE EDUCATION?
- IMPORTANT THINGS TO NOTE
- PACKAGES
- PARTNERSHIP WITH SCHOOLS
- RUFFORD FOUNDATION
- THE CURRICULUM

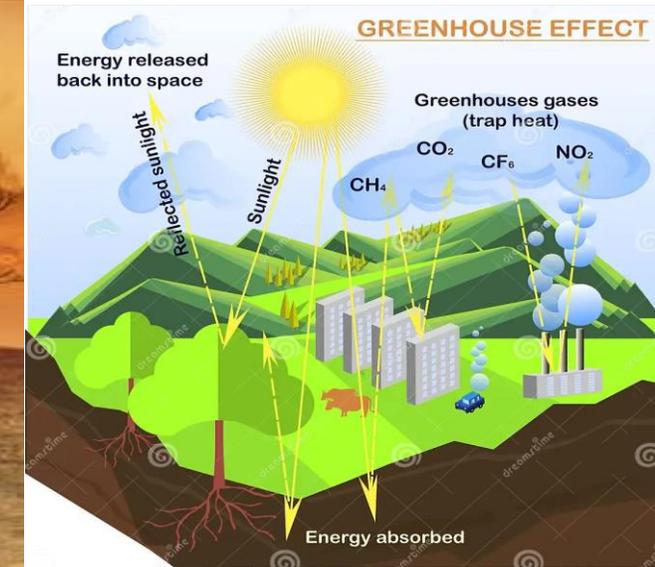
INTRODUCTION TO CLIMATE CHANGE

- Climate change describes a change in the average weather conditions such as temperature and rainfall in a region over a long period of time.
- Climate change is like the weather changing, but it happens over a long time, like many years.
- It is when the Earth's air gets a little bit warmer, this warming is caused by things we do, like driving cars that make smoke or using too much energy from things like lights and computers.

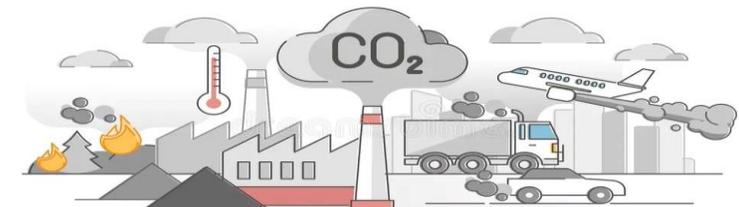


IMPORTANT TERMINOLOGIES IN CLIMATE CHANGE

- Weather;
- Climate;
- Greenhouse Gases;
- Global Warming and;
- Carbon Dioxide.



What's the difference between weather and climate? *



IMPORTANCE OF UNDERSTANDING/STUDYING CLIMATE CHANGE.

- Protecting the Planet
- Caring for Nature
- Sustainability
- Preparing for the Future
- Science and Critical Thinking
- Global Awareness
- Inspiration for Careers
Responsibility and Citizenship
- Hope and Solutions



REAL LIFE EXAMPLES OF CLIMATE CHANGE CONCEPT

Musa's Butterfly Adventure

Meet Musa, a young boy who loved butterflies. He used to see so many colorful butterflies in his garden every year. But as the years went by, he noticed something strange. There were fewer and fewer butterflies visiting his garden. Musa decided to learn why this was happening. He found out that warmer temperatures and changes in the flowers they liked to eat were making it hard for the butterflies to survive.

This made him sad because he loved watching them flutter around. So, Musa decided to take action. He and his family planted lots of flowers that butterflies loved, and they used less energy at home to reduce their impact on the climate. Over time, Musa's Garden became a haven for butterflies again, and he was so happy to see them return.



REAL LIFE EXAMPLES OF CLIMATE CHANGE

CONCEPT CONT'D...

Precious and the Melted Snowman

Precious lived in a place where it used to snow a lot in the winter, and she loved building snowmen with her friends. One winter, though, it did not snow as much as it used to. Precious noticed that the snowman they built did not last very long because it started melting much faster. She learned from her teacher that the Earth was getting warmer because of too much carbon dioxide in the air.

This made the winters milder, and there was less snow. Precious did not want her snowmen to melt so quickly, so she decided to do something about it. Precious asked her family to use less energy and to walk or ride bikes instead of driving everywhere. She also joined a group at school that planted trees to help absorb carbon dioxide. Over time, her town started getting a little cooler in the winter, and they had more snow to build snowmen that lasted longer.

CAUSES OF CLIMATE CHANGE

NATURAL CAUSES OF CLIMATE CHANGE

- Volcanic Eruptions
- Solar Activity
- Natural Greenhouse Gases
- Ocean Currents and
- Natural Climate Cycles

ARTIFICIAL CAUSES OF CLIMATE CHANGE

- Burning of Fossil Fuels
- Deforestation
- Waste and Landfills
- Industrial process
- Use of electricity

CAUSES OF CLIMATE CHANGE



CAUSES OF CLIMATE CHANGE



GENERATING
POWER



MANUFACTURING
GOODS



POWERING
BUILDINGS



PRODUCING
FOOD



USING
TRANSPORTATION



CUTTING DOWN
FORESTS



CONSUMING
TOO MUCH

EFFECTS OF CLIMATE CHANGE

Some of the effects of climate change on our environment, communities, and individuals are:

- Extreme Weather
- Rising Sea Levels
- Health Problems
- Food and Water
- Loss of Biodiversity

Effects of Climate Change on the ecosystems, wildlife, and natural resources:

- Altered Habitats
- Migration Patterns
- Disruption of Food Chains
- Ocean Acidification
- Natural Resources

EFFECTS OF CLIMATE CHANGE

CLIMATE CHANGE EFFECTS



**HOTTER
TEMPERATURES**



**MORE SEVERE
STORMS**



**INCREASED
DROUGHT**



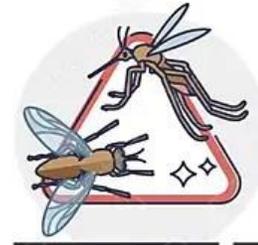
**A WARMING, RISING
OCEAN**



**LOSS
OF SPECIES**



**NOT ENOUGH
FOOD**



**MORE
HEALTH RISKS**



**POVERTY AND
DISPLACEMENT**

MITIGATION MEASURES

Mitigation means making the impacts of climate change less severe by preventing or reducing the emission of greenhouse gases (GHG) into the atmosphere.

Mitigation is achieved either by reducing the sources of these gases or enhancing their sinks.

Some mitigation measures are:

- Conserving water
- Planting of trees
- Using clean energy

Other local mitigation measures are:

- Renewable energy projects
- Reforestation and afforestation
- Energy Efficiency Programs

ADAPTATION STRATEGIES

Adaptation means **anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause, or taking advantage of opportunities that may arise.**

Some adaptation measures are:

- Crop diversification
- Habitat restoration
- Flood management
- Climate resilient agriculture

- Climate resilient infrastructure design
- Water conservation (rain harvesting)
- Community education and awareness
- Establishment of protected areas such as national parks, zoo etc.
- Research and monitoring
- Raising awareness

LOCAL EXAMPLES OF CLIMATE CHANGE EFFECTS AND ADAPTATION EFFORTS

| LOCAL EXAMPLES | CLIMATE CHANGE EFFECTS | ADAPTATION EFFORTS |
|-----------------------------|--|--|
| 1. Flooding in Lagos | Lagos, a coastal city in Nigeria, has been experiencing more frequent and severe flooding due to heavy rains and rising sea levels caused by climate change. This flooding damages homes, disrupts communities, and affects people's lives and businesses. | To adapt to this challenge, communities in Lagos are working on different strategies. They are building better drainage systems to prevent waterlogging, raising buildings above flood levels, and planting more trees and grass to absorb excess rainwater. Additionally, education campaigns are raising awareness about flood risks and encouraging people to take safety measures. |

LOCAL EXAMPLES OF CLIMATE CHANGE EFFECTS AND ADAPTATION EFFORTS CONT'D...

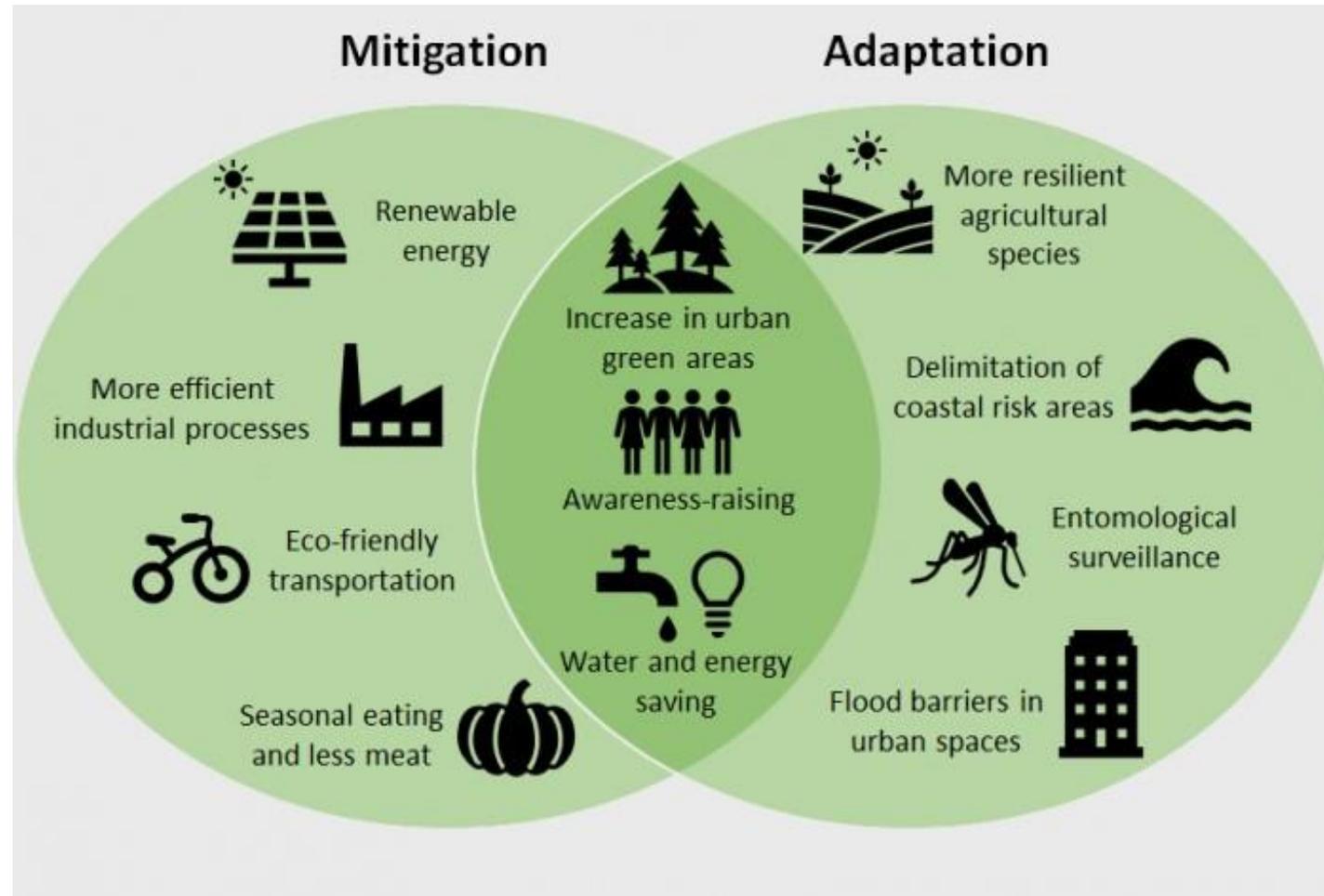
| LOCAL EXAMPLES | CLIMATE CHANGE EFFECTS | ADAPTATION EFFORTS |
|---|--|---|
| 2. Desertification in Northern Nigeria | Northern regions of Nigeria, like Kano and Borno, are experiencing desertification, where once-fertile land turns into desert due to prolonged droughts and soil degradation, worsened by climate change. This affects farmers' ability to grow crops and raise livestock. | To adapt to desertification, communities are using techniques like water conservation, crop rotation, and reforestation (planting trees). They are also learning about drought-resistant crops and improving irrigation methods to make the most of available water. These efforts help them maintain their livelihoods and protect the land. |

LOCAL EXAMPLES OF CLIMATE CHANGE EFFECTS AND ADAPTATION EFFORTS

CONT'D...

| LOCAL EXAMPLES | CLIMATE CHANGE EFFECTS | ADAPTATION EFFORTS |
|---|--|--|
| 3. Changing Rain Patterns in the Niger Delta | <p>In the Niger Delta region, climate change has caused unpredictable and changing rain patterns. This affects farmers who rely on rain to grow crops like rice, yam, and cassava. The irregular rains can lead to poor harvests and food shortages.</p> | <p>Farmers in the Niger Delta are adapting by exploring new planting techniques, such as using early-maturing crop varieties that need less rain or practicing rainwater harvesting. They are also getting support from organizations and the government to access better farming practices and tools to cope with the changing weather.</p> |

MITIGATION AND ADAPTATION MEASURES OF CLIMATE CHANGE IMPACTS



DO'S AND DON'TS' MITIGATION AND ADAPTATION MEASURES OF CLIMATE CHANGE IMPACTS



ROLES OF AN INDIVIDUAL IN CLIMATE ACTION

The following are some of the individual roles in climate change action;

- Reduce energy use
- Save water
- Reduce, reuse, recycle
- Plant trees
- Conserve resources
- Limit car trips
- Protect wildlife
- Reduce plastics
- Educate others
- Support renewable energy
- Promote sustainable agriculture
- Support climate policies
- Save the oceans
- Reduce food waste
- Lead by example
- Be prepared

CLIMATE CHANGE ACTIONS



**SAVE ENERGY
AT HOME**



**WALK, CYCLE OR TAKE
PUBLIC TRANSPORT**



**EAT MORE
VEGETABLES**



**CONSIDER YOUR
TRAVEL**



**THROW AWAY
LESS FOOD**



**REDUCE, REUSE, REPAIR
AND RECYCLE**



**CHANGE YOUR HOME'S
SOURCE OF ENERGY**

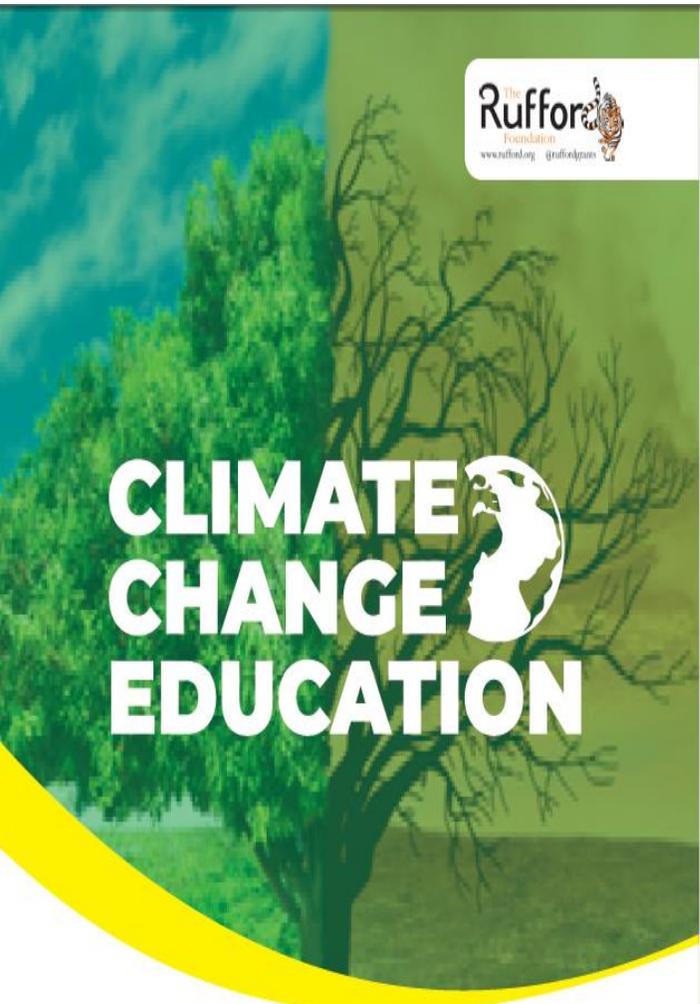


**SWITCH TO AN ELECTRIC
VEHICLE**

APPRECIATION

WE APPRECIATE
THE RUFFORD
FOUNDATION FOR
FUNDING THIS
PROGRAMME





THANK YOU
FOR
LISTENING

