

CLIMATE CHANGE: YOUTH CALL TO ACTION FOR ENVIRONMENTAL SUSTAINABILITY

Being a paper delivered by Taiwo Adewole during the celebration of International Youth Day 2008 in Abuja, organised by British Council and VSO

Climate Change or Global Warming

The term *climate change* is often used interchangeably with the term *global warming*, but according to the National Academy of Sciences, "the phrase 'climate change' is growing in preferred use to 'global warming' because it helps convey that there are [other] changes in addition to rising temperatures."

Climate Change: What is it?

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from:

1. Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
2. Natural processes within the climate system (e.g. changes in ocean circulation);
3. Human activities that change the atmosphere's composition (e.g. through burning fossil fuels) and the land surface (e.g. deforestation, reforestation, urbanization, desertification, etc.)

Global warming is an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns. Global warming can occur from a variety of causes, both natural and human induced. In common usage, "global warming" often refers to the warming that can occur as a result of increased emissions of greenhouse gases from human activities

Climate and Weather

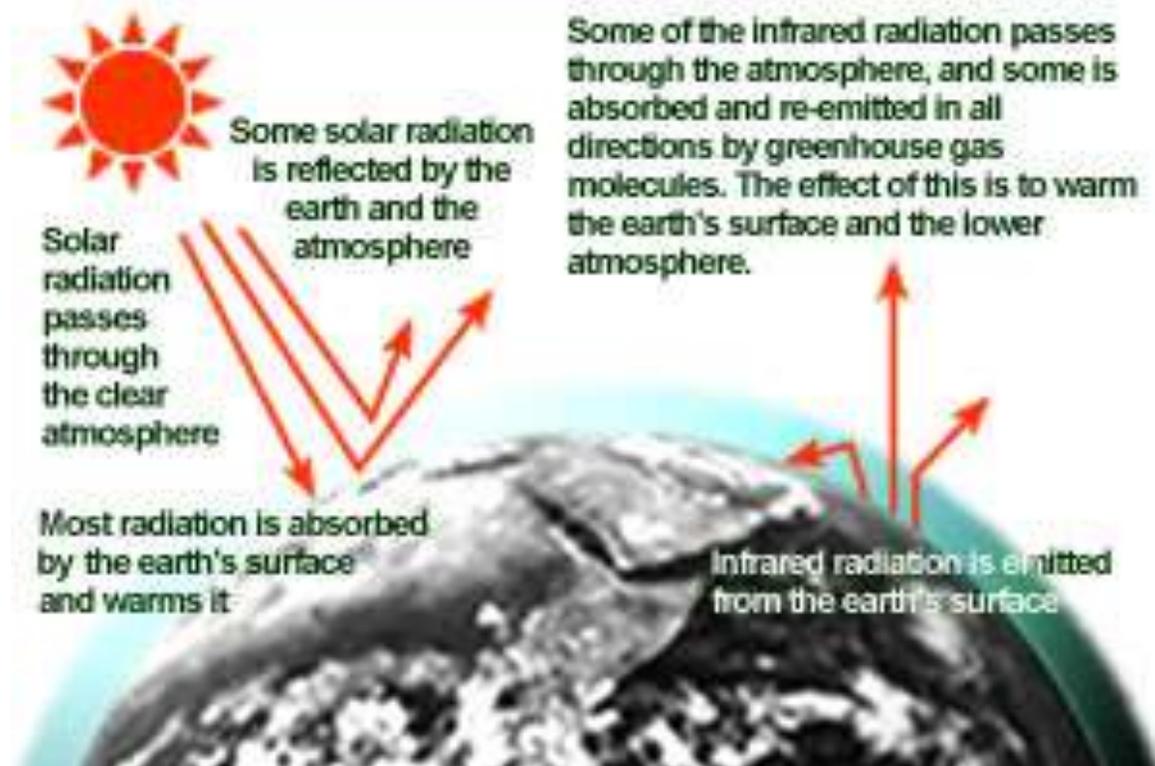
- *Climate* describes the total of all weather occurring over a period of years in a given place. This includes average weather conditions, regular weather sequences (like winter, spring, summer, and fall), and special weather events (like tornadoes and floods). Climate tells us what it's usually like in the place where you live.
- *Weather* describes whatever is happening outdoors in a given place at a given time. Weather is what happens from minute to minute. The weather can change a lot within a very short time. For example, it may rain for an hour and then become sunny and clear. Weather is what we hear about on the television news every night. Weather includes daily changes in precipitation, barometric pressure, temperature, and wind conditions in a given location. What is your weather like today?

What is the climate system?

- **Atmosphere:** - The atmosphere covers the Earth. It is a thin layer of mixed gases which make up the air we breathe. This thin layer also helps the Earth from becoming too hot or too cold, much like clothing does for us

- **Oceans:** - Oceans regulate temperature – energy absorbed or lost by the oceans results in a smaller surface temperature change than would occur over land. The atmosphere and ocean constantly exchange energy and matter. For example, water evaporates from the oceans into the atmosphere. This moisture then falls back to the Earth as precipitation – rain, snow, sleet, and even the morning dew on the grass.
- **Land:** - Land covers 27 percent of Earth's surface, and land topography influences weather patterns. For example, the weather in areas covered by mountains can be completely different than the weather in areas where the land is mostly flat.
- **Ice:** - Ice is the world's largest supply of freshwater. It covers the remaining 3 percent of Earth's surface including most of Antarctica and Greenland. Because ice is highly reflective and because of its insulating properties, ice plays an important role in regulating climate.
- **Biosphere:** - The biosphere is that part of Earth's atmosphere, land, oceans that supports any living plant, animal, or organism. It is the place where plants and animals, including humans, live. Large quantities of carbon dioxide are exchanged between the land-based biosphere and the atmosphere as *plants take in carbon dioxide and give off oxygen, and animals inhale oxygen and exhale carbon dioxide.*

The Greenhouse Effect



could make the Earth warmer than usual. Even a little extra warming may cause problems for humans, plants, and animals.

The role of youth and climate change:

Climate change is real and it will affect us all. The world is getting warmer and human Activity is a major cause of this. Many people care about global warming, but as young people, we are the next generation and we feel that we have the most at stake. While many individuals and some governments are beginning to take action, experts agree that current efforts are way too feeble to solve the problem

We as youth should aim to transform public attitudes to climate change. There is a need to engage students of all ages to help spread campaign about climate change. NGO's and Government agencies need to provide ideas, resources and information to help students and teachers in schools, colleges and universities to run projects and promote practical solutions to climate change in their own communities.

Issues to be noted by the youth:

- Global temperatures will rise by 1.5 to 2 degrees Celsius. There will be as yet unimaginable devastation through flooding, changes in weather patterns, desertification and uprooting of entire populations. We will survive (we the youth), but what then?
- If we do nothing, then the temperature rise could be 5 degrees within a century, at which point the survival of our species will be in the balance. Perhaps it is too late even to prevent this.
- We have to act soon, we have to think big and we have to work together. Humans are bad at all of those things, especially the last (working together). And the window of opportunity is closing very quickly indeed. We probably have less than a decade to get it right.

*"You must be the change
you wish to see
in the world."* Mahatma Gandhi

Addressing climate change is too important to be left to someone else. You can start now to make a difference by taking three simple steps to reduce your environmental impact.

1. Replace all your light bulbs with low energy bulbs.
2. Only boil as much water as you need.
3. Recycle your paper and cardboard.
 - a) Encourage establishment of carbon sinks
 - Urban green space
 - Reforestation
 - Agro-forestry
 - b) Reduce sources of greenhouse gas emission
 - The Energy Sector
 - Promote clean energy technologies

- Establish economic incentives for green fuel and clean technologies
- Promote energy saving in the public and private sector

c) Waste Management

- Promote appropriate and cost-effective recycling technologies
- Promote waste-to-energy projects
- Reduce Methane emission from sewage



Offset Your Carbon Emissions

What is Carbon Offsetting?

Carbon Dioxide is the gas produced by burning fossil fuels and is thought to be the major cause of global warming. The best way to tackle this is to reduce the carbon dioxide we

produce as far as possible. Inevitably we won't be able to eradicate carbon emissions totally so carbon offsetting is the next best thing. This is where we pay for projects to reduce carbon dioxide somewhere else to compensate for the carbon dioxide we have produced. In this way we become 'carbon neutral' Examples of such projects are replacing light bulbs in a developing country with low energy ones (to reduce their carbon emissions) or to plant trees to absorb more carbon dioxide from the atmosphere.

Can you become Carbon Neutral?

First, reduce your carbon dioxide emissions as much as possible. This can be done by Using Energy efficient light bulbs, insulating you home, turning down the thermostat and switching off appliances as much as possible. If you can, install renewable energy sources such as solar power, wind power or biomass.

Efficient Lighting Examples:



Bi-x



Globe



Reflector



Spiral

