



Cities and climate change: How can we respond?

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Abstract:

Climate change is a global phenomenon that largely impacts urban life. Rising global temperatures cause sea levels to rise, increases the number of extreme weather events such as floods, droughts, and storms, and increases the spread of tropical diseases. All these have costly impacts on cities' basic services, infrastructure, housing, human livelihoods, and health. At the same time, cities are a key contributor to climate change, as urban activities are major sources of greenhouse gas emissions.

Only with a coordinated approach and action at the global, regional, national and local levels, can success be achieved. It is essential, to make cities an integral part of the solution in fighting climate change. Many cities are already doing a lot by using renewable energy sources, cleaner production techniques and regulations or incentives to limit industrial emissions. Cutting emissions will also reduce local pollution from industries and transport, thus improving urban air quality and the health of city dwellers.

According to the IPCC special report on global warming of 1.5°C (2019), the world population is rising especially in small and medium-sized cities in low-and moderate-income countries. The urban population projected to increase by 2 billion by 2050, 360 million people live in urban coastal areas and 3 billion people will live in slums and informal settlements by 2050.

Climate Change risks concentrate in cities leading to heat stress, flooding, infectious and parasitic disease, new disease vectors, air pollution, water scarcity, landslides, and fire. These risks could expose and amplify pre-existing stresses such as poverty, exclusion, governance especially in African and Asian countries where urbanization rates are highest.

Cities are at the frontline of adaptation, measures such as disaster risk reduction and management, flood and drought early warning systems. Regional differences in adaptation spending should be adopted where developing cities spend more on health and agriculture-related while developed cities spend more on energy and water.



Mitigating Climate change impacts on cities requires a holistic approach; urban economies need more energy-intensive due to higher per capita income, mobility, and consumption. Rising demand for electricity in cities can drive system transition. Replacing paraffin, wood and charcoal in informal settlements improves air quality, reduces fire-risks and deforestation, which increases adaptive capacity and raises demand.

Biography:

Ifeka Adolphus Chinenye is a meteorologist by profession with Nigerian Meteorological Agency, Abuja. He holds a B.Sc. in Geography and Meteorology and M.tech. in Meteorology respectively. Adolphus has over 8 years of working experience as a Meteorologist. He has been involved in weather observation and forecasting of the world climate most especially West African Meteorology and Climate Systems. Currently, a Ph.D. student in Meteorology with the Department of Meteorology and Climate Science at Federal University of Technology Akure, Ondo State, Nigeria.

Publication of speakers:

- Ifeka Adolphus Chinenye et al; Land use/land cover change detection in some selected stations in Anambra State
- Ifeka Adolphus Chinenye et al; Trend analysis of precipitation in some selected stations in Anambra state
- Ifeka Adolphus Chinenye et al; Evaluation of Onset and Cessation of Rainfall and Temperature on Maize Yield in Akure, Ondo State, Nigeria

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