

## World congress on CLIMATE CHANGE AND ECOSYSTEM

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**Greenhouse gas emissions and poverty alleviation nexus in the economic commission of West African states****Chi Aloysius Ngong***University of Nigeria, Nigeria*

**Purpose:** Climate change is a widely recognized reality. The climate change is a grave hazard to poverty alleviation process that can undo several years of developmental hard work. Researchers indicate that landless rural poor are highly vulnerable to food insecurity due to food price increases due to poor yields caused by climate change factors. Literature assesses how climate change shocks affect natural resource-based populations. The studies emphasize that causality from climate change to poverty is not only about biophysical effects on natural resources but mediates from socio-cultural and institutional factors. Hence, this paper investigates the nexus between greenhouse gas emissions and poverty alleviation in the Economic Commission of West African States between 1985 and 2020.

**Methodology:** This research applies the panel autoregressive distributed lag and Granger causality techniques. Greenhouse gases emitted comprises of carbon dioxide, nitrous oxide and methane are the explanatory variables. The gross domestic product per capita measures poverty alleviation as the response variable.

**Findings:** The results reveal that carbon dioxide non-significantly relates to gross domestic product per capita positively while nitrous oxide and foreign direct investment impacts gross domestic product per capita positively. Methane negatively impacts the gross domestic product per capita.

**Implications:** The governments should use the international conventions to regulate greenhouse gas emissions' effects on environmental degradation regionally and globally. The study underscores that countries should diversify to cleaner energy sources. This would reduce greenhouse gas emissions in the atmosphere. Massive technological investment is required to mitigate the greenhouse gas emissions'negative impacts on the environment which create poverty. This policy implication ensures environmental sustainability and reverses the ugly trend of greenhouse gas emissions on poverty.

**Biography**

Chi Aloysius Ngong, student at Department of Banking and Finance, University of Nigeria, Enugu Campus. then joined the research group of environmental sustainability and reverses the ugly trend of greenhouse gas emissions on poverty in West African States. After research and studies, he has published many articles.