



## Linkage Theory and Regional Security: Assessing the Interrelatedness of Climate Change, Human Mobility, and Violence in West Africa

ABODUNDE OMOTAYO JACOB (Ph.D.)

Department of Political Science and International Relations  
University of Abuja, Nigeria

Email: [abodunde.omotayo@uniabuja.edu.ng](mailto:abodunde.omotayo@uniabuja.edu.ng)

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### **Abstract**

Research has established severe effects of climate change and how it can serve as a catalyst for remote and immediate causes of violent conflict, obviously climate change is not the only cause of violent conflict, these research indicated that it has direct and indirect outcomes on local, national and even Sub-regional Security, the west African migration is very explicit, unlike North Africa or central America, most migratory movement within this region are intra- regional, the West African sub-region is considered a “natural expansion tank” of West African mobility, these paper is an attempt to establish the nexus between climate change, migration and violent conflict in the sub-region, the paper adopt the linkage theory as its theoretical framework, it allow interconnectivity of different data sources to gain inferential insight that could not be gained by analyzing climate change alone, it enable us to uncover the relationship between basic research variables on the basis of the indicator that are relevant to the research questions, the paper relied heavily on secondary sources of data using content analysis as a tool of cross – examining the interrelatedness of climate change, migration and violent conflict in the West African sub-region, these paper adopted the expo-facto research method and relied heavily on secondary data sources, with the aid of content analysis tool, a synthesis of relevant literature was established, findings indicate howbeit, that factors underlying conflict are multi-causal and should be given a thought, the paper however concluded that climate change migration are important perspective from which security concerns in the sub-region should be confronted.

**Keywords:** ECOWAS; Migration; Climate Change; Conflict; West Africa

### **Introduction**

West Africa is a relatively flat low-lying region. The United Nation defines Western Africa is composed of sixteen countries of Nigeria, Benin, Burkina Faso, Cape Verde, The Gambia, Ghana, Guinea, Liberia, Ivory Coast, Guinea- Bissau, Mali, Mauritania, Niger, Senegal, Sierra Leone, Togo as well as Saint Helena with a total land area of about 8 million square kilometers. the region can be sub-divided based on climate and vegetation characteristics into five ecological belts from the humid southern

coast to the Sahara as Guineo-Congolian, Guinean, Sudanian, Sahelian and Saharan belts (Arbonnier, 2002)

West Africa is one of the most vulnerable regions in the world to climate change, with its low lying coastal areas, desertification, and changing weather patterns, these environmental changes have significant implications for human migration and the onset of violent conflict, and these ecological regions play key roles as regional units for land use planning in the region. they are defined according to criteria that integrate various components of the natural and socioeconomic landscapes, namely biophysical factors including climate, geology, hydrology, soils, vegetation and other human factors including habitat type, land use and others. the geological variety is one of the remarkable aspects of West Africa and is composed of ancient Precambrian rock made up of mountain massifs and highlands such as Tibesti, Air, Adrar des Ifoghas and Fouta Djallon.

Alluvial valleys in Senegal and Ghana, low plateaus and sandy plains throughout the Sahel, rolling hills in Togo, and Rocky Mountains with tops exceeding 1,500 meters in Guinea and 1,800 meters in Niger are some of the landscape's defining features (CILSS, 2016). these rocks are exposed across roughly one-third of West Africa and are a portion of Africa's enormous continental platform, which has an average elevation of 400 meters in West Africa.

Major rivers that originate in Guinea's Fouta Djallon highlands, such as the Niger, Gambia, and Senegal rivers, drain the West African region. Another significant body of water in the area, which includes portions of Niger, Chad, Nigeria, Cameroon, and the Central African Republic, is Lake Chad, the region is distinguished by an anticyclonic high-pressure area that is centered over the Sahara and propels the harmattan during the winter months, which run from December to March. (Arbonnier, 2002)

### ***Theoretical Review***

West Africa is home to the ten most climate-vulnerable countries, where displacement often results from excess rain fall and land degradation, as the loss of arable lands and pastures fuels conflict. Violence between farmers and herders, from Mali to Nigeria, exacerbates instability and livelihood, of recent the Lake Chad Basin is one of the world's most threatened natural resources, with its shrinking waters having displaced around 4.5 million people over the last 50 years, including IDPs, refugees, and returnees. (Ahmed Kingimi, 2024)

The outcomes of global temperature rise on the lake are evident, with decreased and irregular rainfall, recurring droughts, low water levels, and the loss of native plant and animal species. Water scarcity has severely impacted farming, fishing, and pastoral livelihoods, leading to food insecurity, limited livelihood options, all leading to migration, migration leading to rising intercommunal tensions and violence in the host communities all of which drive further displacement.

As posited by Ahmed. K, (2024), Since late August, parts of West and Central Africa, including the Lake Chad Basin, have experienced catastrophic rainfall, as indicated in a Reports that at least 1,500 people have lost their lives, and more than 1 million have been displaced across Nigeria, Chad, Cameroon, and Niger, Borno State in Nigeria was particularly affected when a dam burst, flooding the city of Maiduguri and displacing 70% of the its 870,000 inhabitants, with at least 269 fatalities. this disaster was driven by climate change-induced extreme rainfall, compounded by human actions that have degraded the environment, recent updates indicate that, 414,000 people have been displaced and 30 lives lost due to the floods,9 marking it as Borno's worst flood disaster in three decades, according to the UN, Hundreds of thousands of displaced persons are now sheltering in Bakassi Camp and other centers, which until last year primarily housed those fleeing the Jihadist insurgency. these four camps currently host around 6,000 individuals, while thousands more remain in urgent need of assistance. Conditions in the camps are dire, marked by hunger, inadequate medical care, long waits for doctors, and a prevailing sense of despair. Health professionals are increasingly concerned about outbreaks of waterborne diseases, such as cholera, as the city's sewer system deteriorates. (Shanna Handbury,2024).

There have been several attempts to comprehend the underlying social, economic, cultural, and political elements responsible for conflicts in West Africa and their resulting dynamics in the quest for peace and sub-regional stabilization, however, the claim that a number of factors, including poor governance, population composition and migration, climate change, and demography, have had significant effects on the sub-region's conflict dynamics and ought to be important considerations in any analysis for formulating future policy options and this has not received much attention from academics. This paper aims to address the information gap in establishing the relationship between climate change, migration and conflicts or violence in the sub-region, such connections are frequently left to speculation in the absence of strong empirical support. We hypothesized that this apparent lack of analytical input has undermined international and sub-regional efforts to develop comprehensive and sustained intervention plans that fully address one of the root causes of the conflict in West Africa.

### Migration pattern in the West African Sub-region

West Africa is one region of Sub-Saharan Africa that is highly noted for intense human mobility. Traditionally, the patterns of intra-West Africa migration have been rooted in the economic performance and the availability of economic opportunities for migrant populations in the recipient countries. Throughout the sub-region's history, expulsion and deportation policies against migrants in the event of any economic down-turn have been notable. As early as 1958, for instance, Côte d'Ivoire expelled more than 1,000 Beninese and Togolese whilst Chad expelled thousands of Beninese. In 1964, about 16,000 Beninese were again expelled from Côte d'Ivoire; in 1967 Senegal expelled Guineans. Ghanaian fishermen were expelled from Sierra Leone, Guinea and Côte d'Ivoire in 1968. (Adepoju. 2005)

Following the implementation of the Alien Compliance Order in Ghana, an estimated half- a-million West Africans mostly from Burkina Faso, Niger, Liberia and Nigeria were expelled in 1969. The largest of such expulsion of aliens, however, occurred in 1983 and 1985 when Nigeria embarked on mass expulsion of aliens, these statistics establish the extent of intra-regional migration which dates back to the pre-colonial era and heightened at the turn of the twentieth century, the statistics also highlight the ease with which migrants become objects of harsh ad hoc political policies of recipient states. Between 1988 and 1992, for instance, more than 6.4 million migratory movements were recorded by Burkina Faso, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, and Senegal together (Adepoju.2005)

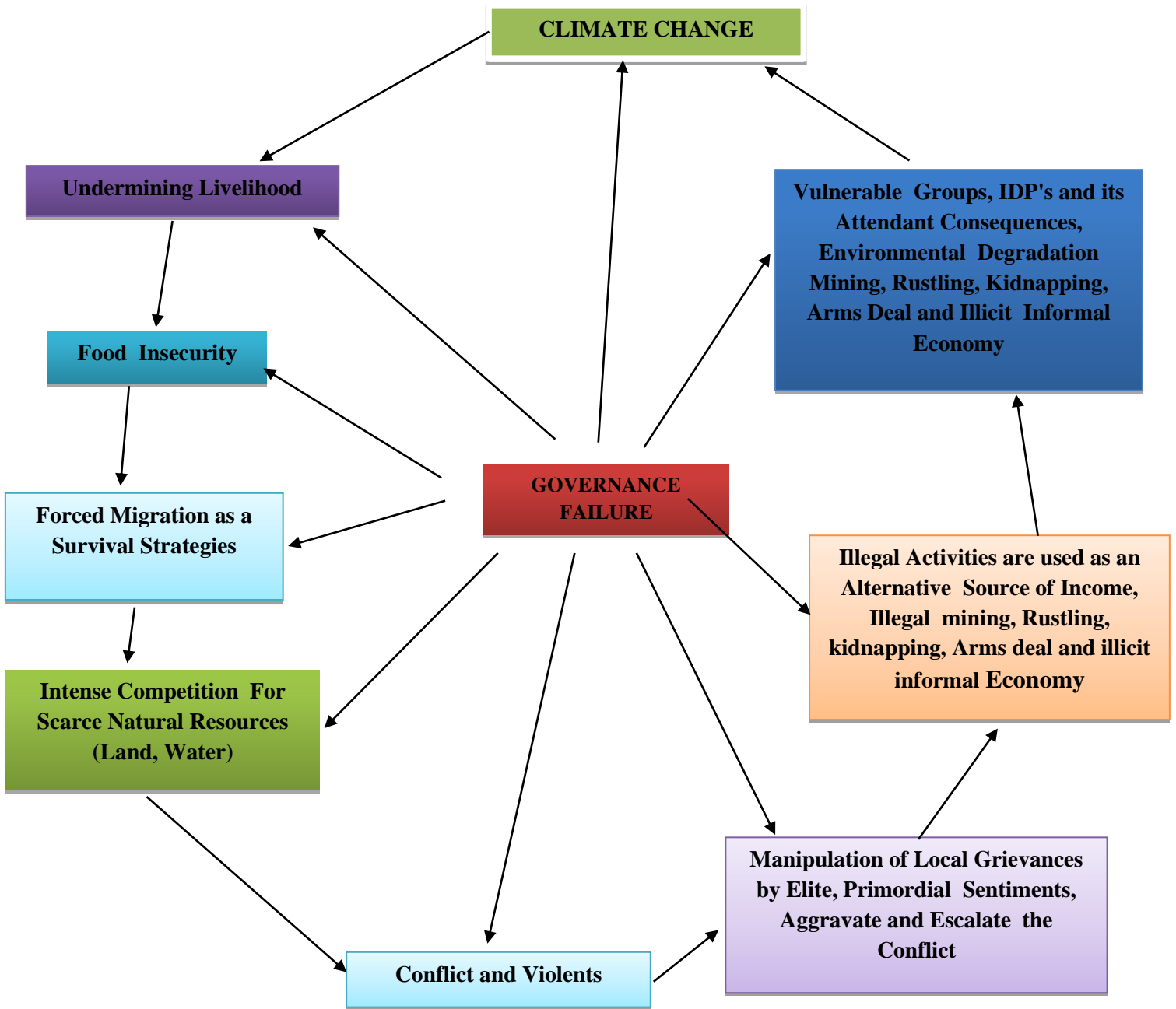
**Table 1.1 Stock of immigrants by country of destination and top five countries of origin**

No	Country of destination	Immigration		Top five countries of origin				
		Frequency	Percent	First	Second	Third	Fourth	Fifth
1	Benin	394,276	3.25	Niger	Togo	Nigeria	Côte d'Ivoire	Ghana
2	Burkina Faso	723,989	3.46	Côte d'Ivoire	Mali	Ghana	Togo	Niger
3	Cabo Verde	15,788	2.84	Guinea- Bissau	São Tomé & Príncipe	Senegal	Portugal	Russian Federation
4	Côte d'Ivoire	2,564,857	9.72	Burkina Faso	Mali	Guinea	Liberia	Benin
5	Gambia	215,659	8.92	Senegal	Guinea	Guinea- Bissau	Mali	Mauritania
6	Ghana	476,412	1.53	Togo	Burkina Faso	Nigeria	Côte d'Ivoire	Liberia
7	Guinea	121,437	0.92	Sierra Leone	Liberia	Mali	Côte d'Ivoire	Senegal
8	Guinea- Bissau	17,945	0.91	Senegal	Guinea	The Gambia	Liberia	Portugal
9	Liberia	87,947	1.74	Côte d'Ivoire	Guinea	Sierra Leone	Ghana	Nigeria
10	Mali	485,829	2.40	Côte d'Ivoire	Burkina Faso	Guinea	Mauritania	Senegal
11	Mauritania	182,286	3.92	Senegal	Mali	Guinea	Algeria	France
12	Niger	348,056	1.44	Mali	Nigeria	Burkina Faso	Benin	Togo
13	Nigeria	1,308,568	0.63	Benin	Ghana	Mali	Togo	Niger
14	Senegal	274,929	1.64	Mauritania	Guinea	Mali	Guinea- Bissau,	Sierra Leone
15	Sierra Leone	53,746	0.67	Guinea	Liberia	The Gambia	Nigeria	Ghana
16	Togo	279,936	3.38	Benin	Ghana	Nigeria	Niger	Côte d'Ivoire

Sources: <https://www.un.org/development/desa/pd/content/international-migrant-stock>

Top (5) countries of origin: <https://www.knomad.org/data/migration/immigration>

**CLIMATE CONFLICT CYCLE IN WEST AFRICA**



*Source: Field Survey, 2025*

## Climate Change and its Implication on the West African Sub-region

Unprecedented changes in temperatures and precipitation are projected by the late 2030s and early 2040s in both the Sahel and tropical West Africa. temperature are expected to rise 3–6°C above late 20th century levels in the intermediate and worst case emissions scenarios In the Sahel, annual precipitation decreased throughout the 1900s, leading to recurrent extreme droughts that had severe consequences for local ecosystems and communities. (Mobjörk et.al. 2020).

While future precipitation in the western Sahel is expected to decrease overall, more frequent storms and extreme rainfall in other parts could increase the risk of floods, rising temperatures are expected to increase the frequency and intensity of droughts, in agricultural regions between the Sahel and the coastline, higher temperatures, increased evaporation and decreasing precipitation are projected to accentuate the risk of water stress, particularly in the dry seasons. (USAID .2018). From Senegal to Nigeria, rising sea levels will affect densely populated coastal regions vulnerable to waterborne diseases, heavy rainfall, floods and coastal erosion. the physical effects of climate change interact with existing social, economic and political vulnerabilities to increase the risk of violent conflict. Governance is a critical variable in climate vulnerability, as it can create or accentuate inequalities that worsen the effects of climate change on specific groups as the case in North East Nigeria.

High dependent on agriculture is an important feature of climate vulnerability in West Africa. Agriculture, mainly informal and subsistence farming, makes up approximately 42.7 per cent of total regional employment, Livestock are a cornerstone of the regional food economy, contributing as much as 25 per cent of the total combined GDP of Burkina Faso, Mali and Niger. (Niang, et al. 2018).

Agricultural sector governance also informs climate vulnerability. Population growth and an expanding commercial agricultural sector alter land use and land cover, while more intensive use of natural resources can exacerbate environmental degradation and water availability. this increases exposure to the negative effects of climate change, including rising temperature and more erratic rainfall, on water resources and crop and livestock health.

Climate change also affects the sustainability and productivity of traditionally women led activities and, due to the extra time spent collecting water and firewood, can increase the domestic workload of women and girls. Gender disparities in education, mobility, land and asset ownership and access to financial resources affect the livelihood security of women and their households. For example, although women make up approximately 43 per cent of the agricultural labour force across Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Guinea, Mali and Senegal, only 8 per cent of agricultural landowners are women. (McOmber.2020).

Climate vulnerability is also informed by the volatile security situation in some parts of West Africa, with insecurity and armed conflict affecting local and national capacities to mitigate and adapt to the effects of climate change, Multiple armed groups are active in some zones. In the Sahel this includes the Islamic State in the Greater Sahara (ISGS) and Jama'at Nasr al-Islam wal Muslimin (JNIM); while in the Lake Chad region Boko Haram and the Islamic State in West Africa Province (ISWAP) have a significant presence. As a consequence, regional and international counter insurgency operations have been ongoing, but have not been able to eliminate armed groups but rather relocate them.

Community defence groups have also mobilized in response to insecurity, leading to a rise in violent intercommunal attacks and forced displacement in Burkina Faso's CentreNord and Soum, Mali's central Mopti, Niger's northern Tillaberi region, and Nigeria's North West zone.

In Nigeria's Middle Belt, conflicts between farmers and herders have escalated into planned community attacks that sometimes surpass the lethality of Boko Haram. Some Parts of West Africa face complex humanitarian emergencies linked to violence, internal displacement, poverty and food insecurity. the number of people in need of assistance in the Sahel and Lake Chad more than doubled between 2019 and 2021, while the number of internally displaced persons (IDPs) registered in West Africa increased

from under 2 million in 2014 to more than 7 million in 2021; including over 3 million in Nigeria alone (Nsaibia.2020)

### **Ecogas Interventions on the Implication of Climate Change**

This Economic Community of West African States (ECOWAS), as result of a long consultation process with the institutions, departments and specialist agencies of ECOWAS, Member States (MS) and specialist regional institutions, and on the other hand the culmination of several years of intervention and action by ECOWAS in the fight against climate change. Currently representing just 1.8% of world greenhouse gas (GHG)<sup>2</sup> emissions, ECOWAS countries' contribution to global warming is minimal. however, the African continent is at the centre of the climate change challenges of this first half of the 21st century. According to the most alarming scenarios, West Africa will experience, by 2060, a temperature increase of +2.3 °C, or a warming of +0.6 °C per decade. Precipitation will be more erratic and will lead to an increase in the frequency and intensity of the extreme weather conditions already being experienced in our region: floods, increased variability of rainfall, coastal and soil erosion in river basins, extremely long pockets of drought among other corollaries, with dramatic human and economic consequences for all economic sectors and for the most vulnerable sections of the population, particularly, women, young people and the elderly. faced with the seriousness of the impacts to come, especially violent conflict. (ECOWAS. 2020).

“Acting Together”, within the framework of regional solidarity, is an absolute necessity to allow our region to reduce its vulnerability and to face, collectively, the risks induced by climate change, which, by definition, know no borders. ECOWAS, building on its past experience of implementing the strategic programme for reducing vulnerability and adapting to climate change (ECOWAS. 2020).

The region's economy is based mainly on the exploitation of natural resources. It has been demonstrated that between 2001 and 2018, climatic conditions explain about 40% of the variation in productivity of cultivated land in West Africa, this makes climate change, in combination with other main challenges, a major exacerbating factor of the vulnerabilities that already exist and a major threat to prospects of sustainable development. (ECOWAS.2020)

According to the African Development Bank (AfDB), the impact of climate change on the continent could reach US\$50 billion a year by 2040, with a further 30% shrinkage in GDP between now and 2050<sup>12</sup>. Furthermore, according to a recent study carried out by the West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL) for ECOWAS, estimates foresee a reduction in GDP of 3.7% or 11.7% by 2050 in the low and high warming scenarios respectively. The economic losses stemming from climate impacts will come mainly from agriculture and infrastructures (transport, energy, buildings, etc.). Coastal countries are likely to suffer the most significant economic effects as regards infrastructures. (Ecogas 2020).

In the light of the implication of climate change Ecogas has developed varieties of programme, protocols, collaborations in mitigating the impact of climate change and its implications, they are but not limited to

- Ecogas Environmental Policy (ECOWEP)
- Ecogas Directorate of Environment
- Ecogas Multilateral Environmental Agreement
- Sub-regional Action Programme to Reduce Vulnerability to Climate Change (SRPA/CC)
- Minamota Convention on Mercury
- Paris Climate Agreement
- Nagoya Kuala Lumpur Supplementary Protocol
- Ecogas Climate Regional Strategy

The mitigation and adaptation objectives as well as the implementation measures provided in this strategy relate to the ECOWAS intervention sectors, and follow an approach of strengthening of existing sectoral policies and programmes already initiated by the Community, in order to

- further integrate concerns related to climate change,
- contribute to the problem solving of common or cross-border issues,
- raise their level of ambition and/or improve the conditions for their implementation in terms of financing.

### **Achievement of ECOMOG in Combating Conflict in the West African Sub –Region**

The end of the Cold War witnessed intensification of intrastate conflicts in the West African sub region. Prior to this era, the West African sub-regional body, Economic Community of West African States (ECOWAS), had used traditional conflict resolution mechanisms to resolve conflicts. these notwithstanding, with the outbreak of conflict in Liberia in November 1989, ECOWAS employed ECOWAS Ceasefire Monitoring Group (ECOMOG), a military intervention force, in August 1990 as another conflict resolution mechanism. the end-state of ECOMOG was to stop the carnage, destruction of property, and create the conditions for diplomacy and dialogue to be employed hopefully resulting in a long-term political settlement. Since then, ECOMOG has been employed on four subsequent intervention operations in the countries of Sierra Leone, Guinea Bissau, Côte d'Ivoire, and Liberia for a second time. (Christopher, 2000). Charles Taylor led Liberian rebel soldiers of the National Patriotic Front of Liberia (NPFL), who entered Liberia from Cote d'Ivoire in December 1989 with the intention of toppling President Samuel Doe's government. In an attempt to promote a diplomatic resolution, ECOWAS established a Standing Mediation Committee (SMC) as part of its regional reaction to the conflict as the fighting intensified and the international world showed little interest. (Christopher, 2000).

On August 7, 1990, the SMC began the process of integrating a military monitoring group (ECOMOG) into Liberia due to a lack of diplomatic progress. To subdue the warring parties and oversee the implementation of a cease-fire, disarmament of the parties, halting of weaponry imports, and prisoner release, ECOMOG was dispatched. In order to "assist the ECOWAS Standing Mediation Committee in supervising the implementation and in ensuring the strict compliance by the parties with the provisions of the cease-fire throughout the territory of Liberia," 3,000 West African troops were sent to the country's capital, Monrovia, on August 24, 1990.

Nigeria, which supplied the majority of the soldiers, Ghana, Guinea, Senegal, Gambia, Mali, Benin, Cote d'Ivoire, Uganda, Tanzania, Niger, Burkino Faso, and Sierra Leone were among the other contributing countries, for instance, the force had 8,430 soldiers in February 1995, divided into 10 battalions; 4,908 of these were from Nigeria, 1,028 from Ghana, 609 from Guinea, 747 from Tanzania, 760 from Uganda, 359 from Sierra Leone, and 10 each from the Gambia and Mali. The force peaked in 1993 at about 16,000 soldiers, and by early 1997, it had grown to about 11,000 soldiers. ECOMOG carried out a number of missions during its deployment, including as peacekeeping, mediation, cantonment, disarming factions, and safeguarding humanitarian aid. (Christopher.2000)

ECOMOG's intervention efforts returned democratic rule to Liberia in 1997 when free and fair parliamentary and presidential elections saw Charles Taylor elected president. The achievement of Ecowas in the deployment have been favourably compared by some commentators with the failures of Western Operations in Somalia and therefore an example for the rest of the World to follow "the ECOMOG Magic"(Berman, 2000).

Though the intervention in Sierra Leone did not resolve the crisis, the timely involvement of ECOMOG enabled the UN to smoothly take over the operations. Notwithstanding the fact that the entire subregion is relatively unstable due to turmoil in Côte d'Ivoire, Liberia and Sierra Leone, no one knows what the situation would have been like in the subregion without the numerous ECOMOG operations in the past. Indeed, ECOMOG's objective in all these intervention operations has not been to resolve the conflict but to stop the humanitarian sufferings and create the conditions for a long-term political

settlement peace. Since these were achieved in all the operations, ECOMOG can be said to have been successful. This probably justifies why the subregional body, ECOWAS, continues to employ it as part of its conflict resolution mechanisms (Berman, 2000).

### ***Discussion of Findings***

From the forgoing our findings indicate that West Africa contribute 1.8% of world greenhouse gas (GHG)2 emissions, ECOWAS countries' contribution to global warming is minimal. However, the African continent is at the center of the climate change challenges of this first half of the 21st century

From the paper it is obvious that conflicts in West Africa are Multi-causal, including poor governance, population composition and migration, climate change, and demography, have had significant effects on the sub-region's conflict dynamics and ought to be important considerations in any analysis for formulating future policy options.

### ***Conclusion***

Howbeit factors underlying conflicts in West Africa are Multi-causal and should be given attention.

- Migration in West Africa is a form of survival strategy adopted by settlers when environmental factors turn harsher
- Climate change exacerbate livelihood condition
- Pastoral mobility pattern is interchanging
- Exploitation of local grievances by the elite is imminent.

### ***Recommendation***

The paper however recommends that there should be more synergy among member States in tackling the vagaries of Climate Change and ECOWAS should do more in the years to come in formulating conflict prevention policy initiatives that will disaggregate the Multi-dimensional nature of west African conflict so as to properly preempt policy orientation and if adaptation fails, industrialization is the answer.

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