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An Appraisal of the Measures Adopted Within the Context of Sustainable Development to Combat Climate Change

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Abstract

Climate change has continuously been regarded as a major environmental threat, which has hampered the realization of sustainable development in Cameroon. In response to the scourge of climate change, the State of Cameroon has adopted several measures. The measures adopted in Cameroon have not only been vital in fighting climate change, but have also contributed to fostering sustainable development in Cameroon. The research methodology used in this work is qualitative, and it further employs the doctrinal research method, which analyses primary and secondary data sources. This paper therefore appraises the measures adopted against climate change in Cameroon, specifically within the context of sustainable development. Cameroon has recorded successes and has also faced challenges in the journey of promoting sustainable development, these aspects will be examined in the subsequent paragraph starting with the successes recorded.

Keywords: climate, climate change, sustainable development

1. Introduction

Climate change has over the years been recognized as a contemporary environmental and public health threat in 21st century. Not only has climate change hampered on the realization of human rights, but also it has further hampered on the realization of sustainable development in contemporary societies. The scourge of climate change has over the years been known to be accompanied by a multiplicity of effects, which have posed a threat to sustainable development, thereby affecting economic growth, social equity and environmental integrity. For example, climate change has continued to affect economic stability, as extreme weather events such as floods droughts and hurricanes disrupt agriculture, leading to food shortages and increased prices. This situation has hampered on the ability of societies, especially low-income societies to achieve economic resilience and stability.

2. Successes Recorded in the Promotion of Sustainable Development in Cameroon

Several successes have been recorded in the promotion of sustainable development in Cameroon. The measures adopted in Cameroon against climate change have contributed to this level of success recorded in the promotion of sustainable development in Cameroon. These successes include; enhancement of agricultural productivity, improved access to energy, improved health quality, job creation/employment opportunities amongst others. These successes are examined below as follows:

2.1 The Enhancement of Agricultural Productivity

One of the core measures adopted in Cameroon in a bid to combat climate change is reforestation. Reforestation is vital in that it increases the number of trees, which serve as carbon sinks that absorb excess carbon dioxide in

the atmosphere and purify the air. Additionally, reforestation plays a crucial role in enhancing agricultural productivity by improving soil fertility, water availability and climate resilience. It is worth noting that reforestation efforts in Cameroon not only help with carbon sequestration but also enhance biodiversity, improve soil quality and increase agricultural productivity. Trees also contribute to soil fertility by adding organic matter through leaf litter and root decomposition.[1] In addition, tree roots contribute to agricultural productivity in that they help stabilize soil structure, reducing erosion and nutrient loss.[2]

Furthermore, trees planted as part of reforestation efforts in Cameroon have been vital in that they play a significant role in maintaining the water cycle by regulating ground water recharge and reducing surface runoff. Tree roots have over the years contributed to increasing soil porosity, allowing water to infiltrate and be stored for longer periods, which is beneficial to crops.[3]

Reforestation efforts in Cameroon therefore have not only contributed to the fight against climate change but have contributed to enhancing agricultural productivity by improving soil quality. This has facilitated the realization of sustainable development, as farmers have been able to increase productivity and ensure food security for Cameroonians.

In an interview conducted with a farmer in the Bokwai-Buea, the interviewee expressed the opinion that reforestation has made a big difference in his farming activities. The interviewee explained that after planting trees in an unused land around his farm, the soil quality improved and his crop yields have increased. According to the farmer, these trees drop leaves, which later decompose and make the soil rich in organic matter thereby improving soil fertility. The interviewee further expressed the opinion that in recent times, he has noticed that his crops look healthier as the trees around his farm attract birds and other beneficial insects that help control pests. The interviewee however acknowledged that the major challenge faced with tree planting (reforestation) vis-à-vis its role in enhancing agricultural productivity is that the trees take time to grow; however, to the interviewee; he found that integrating trees into his farm has resulted in more benefits than losses.[4]

2.2 Improved Access to Energy

One of the core measures adopted to combat climate change in Cameroon is the implementation of renewable forms of energy such as hydroelectric energy and solar energy. It is worth noting that national electricity access has significantly improved in Cameroon in recent years, reaching approximately 70% as of recent reports.[5] This increase has over the years been attributed to various projects, including the construction of hydroelectric dams and the implementation of photovoltaic projects across various parts of Cameroon.[6] The enhancement of these forms of renewable energy have been vital in that they have facilitated sustainable development as they have improved access to energy for diverse activities including industry and manufacturing, enabling the operation of local businesses, which in turn stimulate economic activities, thereby contributing to income generation and reducing poverty levels.[7]

Improved access to renewable energy in a bid to combat the effects of climate change has further contributed to sustainable development in Cameroon. That is, it has provided reliable electricity supply, which has contributed to enhancing the operation and functioning of essential services such as healthcare and education, particularly in rural areas where there has historically been a continuous lack of access to power supply. For example, hospitals and health facilities can now store vaccines and certain types of medicines and students can actively study at night, thereby contributing to better educational outcomes as compared to when electricity supply is limited.[8]

In an interview conducted in January 2025, the interviewee expressed the opinion that renewable energy, notably solar energy has played a vital role in enhancing security, as the recent installation of solar panels in the streets

[1] Foley J.A. et al, (2011). Solutions for a Cultivated Planet. *Nature Journal*, *478*(7369), pp. 337-342.

[2] *Ibid.*

[3] Ellisson D. et al, (2017). Trees, Forests and Water: Cool Insights for a Hot World. *Global Environmental Change Journal*, *43*, pp. 51-61.

[4] This information was derived based on an unstructured interview with a farmer at Bokwai Buea on February 8, 2025.

[5] Chu Donatus et al, (2023). Driving the Clean Energy Transition in Cameroon: A Sustainable Pathway to Meet the Paris Accord and the Power Supply/Demand Gap. *Frontiers in Sustainable Cities*, *5*, pp. 1-23.

[6] *Ibid.*

[7] Fotsing Metegam Isabelle Flora, Njomo Donatien, Rene Tchinda & Oumarou Hamandjoda, (2019). Impact of Sustainable Electricity for Cameroonian Population through Energy Efficiency and Renewable energies. *Journal of Power and Energy Engineering*, *7*, pp. 11-51.

[8] *Ibid.*

has resulted in lighting the Town of Buea.[1] The interviewee stated that at first, people could not freely move late at night because of insecurity (the constant aggression in the dark by thieves) since the streets had no lights. Now with the lighting of the streets by solar panels, even if there is electricity failure, the streets are lighted thereby bringing security to the town of Buea. The interviewee further expressed the opinion that solar energy is vital for it brings security, making people to go on with their various activities hinge free. The interviewee ended by suggesting that the government should take steps to improving access to energy by installing solar panel in all the quarters not only in Buea but also in the other towns of Cameroon.

In another interview conducted in February 2025, the interviewee expressed the opinion that renewable energy, notably solar energy has in recent months played a vital role in enhancing his education, as the installation of solar panels has resulted in fewer power interruptions in his residence.[2] The interviewee stated that in the second semester of the 2023/2024 academic year, he had a project, which required him to study at late hours of the night, and he was able to efficiently work on his project because of power stability derived from solar energy installed at his home.

The interviewee further expressed the opinion that solar energy is vital for educational pursuits as he feels secure and confident, knowing that he can embark on his studies with good lighting and access to online resources using his computer whenever he feels like carrying out academic research. The interviewee further stated that since the installation of the solar panels at his residence, he has felt more energized, with an increased zeal to study, which has ultimately leads to the improvement of his grades at school. The interviewee ended by suggesting that the government should take steps to improving access to energy for students by not only installing solar panels in student residential areas, but also in the university campuses for this will create a better learning environment not just for studying at night, but also for fostering innovative ideas that promote sustainability among students.

2.3 Improved Health Quality

It is no doubt that there exists a symbiotic relationship between health and sustainable development as health outcomes significantly influence economic stability and social equity. Sustainable development emphasizes on the need for health systems that are not only equitable but also efficient in ensuring that all individuals have access to quality health care without financial restraint.[3] It is worth noting also that health is not merely the absence of disease, but encompasses social dynamics, lifestyles and environmental elements that contribute to the overall wellbeing.[4]

Sanitation is a fundamental determinant of health influencing a wide range of outcomes. According to the World Health Organization (WHO), sanitation has a relationship with health in that poor sanitation can lead to the spread of infectious diseases such as cholera, dysentery, typhoid, intestinal worm infections and polio.[5]

One of the measures adopted to combat climate change in Cameroon is the improvement of waste management. This measure adopted to combat climate change has over the years impacted on sanitation as a determinant of health in that it has improved the sanitary state in Cameroon, thereby promoting the health of Cameroonians. It is worth noting that improved waste management practices in response to climate change in Cameroon has over the years directly improved sanitation and hygiene reducing the prevalence of hygiene-related diseases. In fact, according to the WHO, improves waste management practices decreases the incidence of diarrheal diseases, which are prevalent in areas with inadequate sanitation.[6] Councils have also over the years played a pivotal role in improving the sanitary conditions of various cities across Cameroon. They have done so specifically through the institution of specific days in various towns and cities around the country for businesses and private citizens

[1] This information was derived based on an unstructured interview with businessperson having a store at the O.I.C. market in Buea, on Wednesday 15/01/ 2025.

[2] This information was derived based on an interview with a Student at the Faculty of Health Science, University of Buea, on Wednesday 19/02/2025.

[3] Margaret E. Kruk *et al*, (2018). High Quality Health Systems in the Sustainable Development Goals Era: Time for a Revolution. *Lancet Global Health Journal*, *5*(6), pp. 1196-1252.

[4] Ivy Panda, (2020). Health Promotion and Sustainable Development. Available online at: https://ivypanda.com/essays/health-promotion-and-sustainable-development. (Accessed on February 25, 2025).

[5] WHO, (2024). Sanitation. Available online at: https://www.who.int/news-room/fact-sheets/detail/sanitation#:~:text=Poor%20sanitation%20is%20linked%20to,the%20spread%20of%20antimicrobial%20resistance. (Accessed on the 24/02/2025).

[6] WHO, (2024). Diarrhoeal disease. Available online at: https://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease. (Accessed on the 24/02/2025).

to keep their businesses and premises clean, which is a measure not only to protect the environment, but also to promote quality health.

For example: the Foumban Council has set aside Thursdays of every week as a general clean-up day in the Foumban Municipality; the Mamfe Council has set aside the first Thursday of the month as a day for the general clean-up of the town; the Kumba City Council has set aside the first Thursday of every month as a general clean-up day in Kumba; The Limbe city council has set aside the third Wednesday of every month as a general clean-up day in the town of Limbe; the Buea Council has set aside the first and last Wednesday of every month as the general clean-up day within the Buea municipality; and the Douala City Council has set aside Thursdays of every week as a general clean-up day, just to name a few. These specific days set aside by councils across Cameroon have over the years had an impact on sanitation and the right to health as a whole, as these cleaning activities have contributed to the general reduction of diseases by eliminating breeding grounds for pests and pathogens such as mosquitoes that transmit diseases like dengue and malaria. Another impact of these cleaning campaigns instituted by councils is that it has served as a tool of education, sensitising the public on waste management, recycling, and the importance of environmental stewardship, fostering sustainable behaviour.

In order to understand how sanitation improves the quality of health, the researcher conducted an interview with a Sanitation officer of the Limbe City Council. During the interview, the interviewee reiterated the fact that the health of the people of the town of Limbe has greatly improved due to the general cleanup campaign put in place by the Limbe City Council for businesses and private citizens to keep their businesses and premises clean. He said that that the specific day set aside for the environment of Limbe is the third Wednesday of every month. He further said that, the environs of Limbe had cases of cholera outbreak and other illnesses due to poor sanitation in the past but this is not the case now. The interviewee said that HYSACAM, a private waste management Company also helps to keep the town clean. He said that, the problem faced as far as sanitation in Limbe is concerned is lack of equipment due to limited financial resources and the lack of responsible behaviour from the citizens. The interviewee said that, apart of the challenges, the environment of Limbe is protected and the hospitals do not have cases of illnesses due to sanitation therefore healthcare has greatly improved in the Limbe Municipality. He further said that, the government should provide more financial resources and sensitize the population on the relationship between sanitation and health so that the environment can be protected and to promote quality health.[1] All these have contributed to improving the quality of health, which is fundamental for sustainable development in Cameroon.

2.4 Job Creation/Employment Opportunities

The measures adopted in Cameroon to combat climate change have significantly contributed to the creation of jobs which is fundamental for achieving sustainable development. Employment has over the years been vital for the realisation of sustainable development in that it contributes to economic growth, poverty reduction and social stability by providing individuals with the means to meet their basic needs and contribute to societal wellbeing.

The fight against climate change in Cameroon has doubt led to substantial investments in renewable energy as public electricity generation from renewable sources has increased from 41.56 GWh in 2015 to 66.3 GWh in 2019 reflecting a positive move towards the promotion of renewable energy.[2] It is worth noting that this shift towards renewable energy sources has not only enhanced energy security but has also created jobs in the renewable energy sector, including roles in the construction, operation and maintenance of renewable energy facilities.[3]

An example of a renewable energy entrepreneur who has recorded enormous success as a result of renewable energy is Soukaina Bouba Dalil who exemplifies the employment potential within the renewable energy sector. In 2019, she founded a company named *Energie D'Afrique* as a result of the desire to promote renewable energies, within the context of a gross energy deficit in Cameroon.[4] Presently, the company has several employees who are actively engaged in the transformation of agricultural farms into biogas, which is used for heating/drying, as a bio fertiliser to boost soil yields as part of the circular economy.[5] The company has over the

[1] This information was derived based on an unstructured interview with Sanitation Officer working with the Limbe City Counsel, on Wednesday 15/11/ 2024.

[2] ATMFP, (2024). Implications of Climate Policies over the Past Ten Years in Cameroon. Available online at: https://camepi.org/agriculture-and-trade/the-impact-of-green-policies-over-the-past-ten-years/?utm_. (Accessed on the 03/03/2025).

[3] *Ibid.*

[4] Initiatives Climat, (n.d.). Energie D'Afrique Plus Entrepreneur Verts-Femmes. Available online at: https://www.initiativesclimat.org/Porteurs-d-initiatives/Energie-d-Afrique-Plus. (Accessed on the 03/03/2025).

[5] *Ibid.*

years not only provided employment but has also enabled families with little access to energy and gas to produce their own energy (biogas) from waste from agricultural activities and some of this biogas is used to dry certain fruits such as cocoa and mango.[1]

In an interview conducted in March 2025, the interviewee expressed the opinion that the shift to renewable sources of energy has been a blessing because it has provided employment to him, which has made it easier for him to cater for his family. The interviewee further stated that recently, about 70% of his projects are related to renewable energy, especially the installation and maintenance of solar panels. To the interviewee, this shift to renewable energy has opened up many opportunities not just for him but also for several electricians in the Buea municipality.[2] The interviewee further expressed that the job market for electricians is changing, and that the demand for electricians who specialise in renewable energy will continue to grow, resulting in more job opportunities for electricians. The interviewee further stated that with the advancement in technology and increasing awareness about climate change, he foresees a massive expansion in the renewable energy sector.[3] The interviewee ended by recommending that the state should establish learning institutions where people will be trained in bid to develop their skill vis-à-vis the use of renewable sources of energy.

From the above paragraphs, it is evident that that measures adopted to combat climate change in Cameroon have not only been vital for environmental protection, but have also been vital for the achieving sustainable development in Cameroon through the creation of jobs.

Apart of the successes recorded by Cameroon in fighting climate change to promote sustainable development, the country faces serious challenges in the said domain, lack of awareness on environmental sustainability, which are examined below as follows:

3. Challenges Faced by Cameroon in Fighting Climate Change to Promote Sustainable Development

Several measures have been adopted in Cameroon to combat climate change in a bid to promote sustainable development. However, there exists some challenges which have over the years been faced. These challenges include among others; population growth and increased deforestation, limited financial resources, weak Institutional/Governance framework, limited technological capacity, corruption/bad Governance, fragmented legislations, inadequate penalties for environmental crimes, examined in the subsequent paragraphs.

3.1 Population Growth and Increased Deforestation

Urbanization and population growth in Cameroon have been a major challenge towards the country's fight against climate change.

In recent years, Cameroon has undergone rapid transformation, manifested in the form of significant shifts of its population from rural to urban areas. In fact, according to the World Bank, the percentage of Cameroon's population living in urban areas has increased from 39.5% in 1990 to 56% in 2020.[4] This rapid urbanization has resulted in a wide range of environmental challenges such as climate change. One of the primary consequences of urbanization in Cameroon is that it has resulted in the expansion of cities through the clearing of forested lands which have contributed to climate change. Also, the concentration of economic activities and transportation in urban areas has resulted in a significant increase in greenhouse gas emissions, thereby increasing the country's overall emission rates.

Rapid urbanization in Cameroon has also been accompanied by a corresponding increase in population. According to the United Nations, Cameroon's population is projected to reach 36.4 million by 2030 from 27.2 million in 2022.[5] Population growth has over the years intensified pressures on the environment, thereby serving as a major challenge towards the ability of the State of Cameroon to adapt to and contain the scourge of climate change.

Despite Cameroon's efforts to curtail climate change and its undesirable repercussions, the problem of persistent

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[1] Food and Agriculture Organization, (2024). Women SME Accelerator Programme. Available online at: https://agrifood.net/wp-content/uploads/2024/01/SME-Accelerator-Website-Profile_Soukaina-Bouba-Dalil.pdf. (Accessed on the 03/03/2025).

[2] This information was derived based on an interview with an electrical engineer in Buea on 02/03/2025.

[3] *Ibid.*

[4] World Bank, (n.d.). Cameroon City Competitiveness Diagnostic. Available online at: https://documents1.worldbank.org/curated/en/838941529565340570/pdf/Cameroon-City-Competitiveness-Diagnostic.pdf. (Accessed on the 19/02/ 2025).

[5] United Nations, (2022). World Population Prospects. Available online at: https://population.un.org/wpp/DataSources/120. (Accessed on the 19/02/ 2025).

deforestation serves as a huge setback to her strives. The increase in the rates of deforestation in Cameroon can be attributed to factors including: demographics (that is, population growth and pressure), economic changes (especially market growth and economic structures), just to mention a few. Statistics show that deforestation decreased with some oscillation until 2014 and continues to increase until today.[1]

It is recorded that, in 2010, Cameroon had a natural forest that extended to 30.4Mha, covering over 66% of its land area. However, in 2021, she lost 167Kha of her natural forest, which absorbs about 150Mt of carbon dioxide emitted.[2] Between the years 2015 to 2018, deforestation was said to have accounted for the loss of between 40.000 to 80.000 hectares of primary forest on an annual basis.[3]

Hence, with the increased rate of deforestation in Cameroon, the success rate of her fight against climate change is lessened. The implications of population growth and deforestation in Cameroon extend to sustainable development goals as rapid population growth hinders efforts to improve health, education, and economic stability making it difficult to implement sustainable practices. Also, deforestation undermines the livelihood of communities that depend on forests for their economic activities such as agriculture, forestry and tourism. The loss of biodiversity not only hampers on efforts to protect the environment but also leads to decreased agricultural productivity.[4]

3.2 Lack of Awareness on Environmental Sustainability

One of the major challenges in the fight against climate change in Cameroon and most sub-Saharan African countries is the lack of awareness, which impedes on the goal of addressing climate change in decision-making regarding climate change and in the actions of non-governmental actors. This problem arguably stems from the fact that in countries like Cameroon, issues concerning the environment is not addressed in the professional institutional system. The outcome of such a situation is that when Cameroonians rise to positions of authority, they have limited ideas and knowledge on matters concerning the environment.

Over the years, there has been an argument that some of the environmental-related cases brought before the judges may not be well handled because most of the judges are not trained in this area of the law.[5] Consequently, some judges have problems in handling such cases especially when they come before them for the first time. This problem is principally as a result of the fact that the National School of Administration and Magistracy (ENAM) where magistrates are trained in Cameroon does not provide trainees with a course on environmental law, which makes them face challenges in practice when environmental cases are brought before them. In order to ensure that judges effectively discharge their functions, they need to attend capacity building seminars and refresher courses on environmental law.

Lawyers on their part are not so different from the magistrates. Lawyers are auxiliaries of justice and they have a vital role to play in the protection of environmental rights before the courts. In Cameroon today, there are limited lawyers specialised in environmental law. This has over the years been a contributing factor to the inefficient enforcement of environmental legislation in Cameroon. Some of the reasons why there exist fewer environmental lawyers include: firstly, environmental law is a new and contemporary discipline introduced to the syllabuses of universities; secondly, most lawyers are not always interested in attending workshops or seminars on environmentally-related issues; and lastly, environmental law litigation is not lucrative because the fines levied against the defaulter is paid to the state and not the lawyer and very few lawyers are willing to render free services.[6]

The lack of public awareness has been accompanied by a corresponding lack of public engagement in the fight against climate change. The limited engagement of civil society organisations, community based groups, and the private sector in Cameroon's climate change efforts has been a major challenge as it has reduced the overall effectiveness of the country's efforts to combat climate change. Combating climate change requires collective

[1] WWF, (n.d.). Deforestation Front; Cameroon, available at https://wwfint.awsassets.panda.org/downloads/deforestation_fronts_factsheet_cameroon.pdf. (Accessed on the 20/02/2025).

[2] GFW, (n.d.). Cameroon Deforestation Rates and Statistics, available online at https://www.globalforestwatch.org. (Accessed on the 20/02/2025).

[3] EUREDD Facility, (n.d.). Cameroon, available online at https://euredd.efi.int/countries/cameroon/. (Accessed on the 22/02/2025)

[4] Mekou Youssoufa Bele et al, (2011). Forests and Climate Change Adaptation Policies. *Journal of Mitigation and Adaptation Strategies for Global Change*, *16*, pp. 369-385.

[5] Zaelke. D, (2005). Making Law Work: Environmental Compliance and Sustainable Development. Available online at: https://www.ecolex.org/details/literature/making-law-work-environmental-compliance-and-sustainable-development-volumes-i-and-ii-mon-074246. (Accessed on the 22/02/2025).

[6] *Pro bono* services.

efforts from both the state and private stakeholders as such private stakeholders can play a crucial role in raising awareness and advocating for policy changes. The limited involvement of these private sector stakeholders in Cameroon's efforts against climate change has over the years been a major challenge faced in the fight against climate change in a bid to promote sustainable development in the country.

3.3 Limited Financial Resources

Another challenge faced in the fight against climate change in promoting sustainable development in Cameroon is that of limited financial resources. It is no doubt that finance is a requisite for an effective fight against climate change and its effects. As a developing country, the state of Cameroon has continued to face economic challenges, including high rates of poverty, debt burdens and reliance on foreign aid. This obvious lack of financial resources has the effect of constraining the government's ability to invest on climate change initiatives. In fact, according to the United Nations Development Program (UNDP), Cameroon Requires an estimated $3.8 Billion per year to effectively address climate change but the government only allocates about $20 million annually to climate related programs.[1]

While Cameroon has been able to secure funding from global climate finance mechanisms such as the Green Climate Fund, the availability of these funds is often inconsistent and subject to the priorities and agendas of international donors, which may not often align with the specific needs of Cameroon. Hence, limited finance remains a major challenge in the fight against climate change in Cameroon.

3.4 Weak Institutional/Governance Frameworks

The existence of weak institutional/governance frameworks is another challenge faced in the fight against climate change in a bid to achieve sustainable development in Cameroon. In Cameroon, there exists a lack of a cohesive and well-coordinated national strategy as well as a clear fragmentation of responsibilities across the various government agencies. This situation has hindered the country's ability to tackle climate change in a comprehensive and coordinated manner.

The Ministry of the Environment, Nature Protection and Sustainable Development (MINEPDED) is the primary government institution charged with the responsibility for environmental protection and development of climate change related policies and initiatives. The ministry's limited resources and capacity often result in a reactive rather than a proactive approach to climate change.

In addition, the National Observatory on Climate Change (NOCC) which is charged with the responsibility of assessing the socio-economic and environmental impacts of climate change and proposing measures to prevent, and mitigate/adapt to the adverse effects of climate change has continued to face several challenges impeding on its mission such as the unavailability of state of the art equipment necessary for weather monitoring stations, data analysis tools, and climate modelling capabilities.

In addition, the lack of collaboration between MINEPDED and other ministries and governmental agencies relating to the environment such as the Ministry of Forestry, Ministry of Agriculture, and the Ministry of Energy has been a major challenge encountered in the fight against climate change in Cameroon. Such a lack of cooperation has over the years resulted in a fragmented response to climate change, thereby weakening Cameroon's resilience to climate change.

3.5 Limited Technological Capacity

The Paris Agreement on Climate change recognizes the importance of fully realizing technology development in order to improve resilience to climate change and reduce greenhouse gas emissions.[2] Technology within the climate change context is necessary to ensure a shift from the fossil fuel era to environmentally friendly technology in areas such as transportation, agriculture, and industry.[3]

Cameroon as a developing country lacks access to the latest technologies that can help adapt and mitigate the effects of climate change. Cameroon's technological infrastructure and research development capabilities are underdeveloped, and this has further been compounded by the limited level of investment in science and technology. This lack of technology in Cameroon has been due to factors such as: limited financial resources, inadequate infrastructure, and a lack of technical expertise. The lack of state of the art technology in Cameroon has in recent years proven to be a major challenge in Cameroon's efforts to combat climate change in a bid to

[1] UNDP, (n.d.). Climate Change Adaptation. Available online at: https://www.adaptation-undp.org/explore/western-and-central-africa/cameroon. (Accessed on the 22/02/ 2025).

[2] Article 10 (1), Paris Agreement on Climate Change, 2015.

[3] Tamukum Princewill. A, (2023). Capacity Building on Climate Change in Cameroon: A Legal Appraisal. Available online at: https://ic-sd.org/wp-content/uploads/2023/10/2023submission_165.pdf. (Accessed on the 23/02/2025).

achieve sustainable development.

3.6 Corruption/Bad Governance

Corruption is a cankerworm which has eaten deep into the African society as most African countries today are known for their high levels of corruption. Corruption refers to the violation of the obligations of probity, fidelity, and impartiality in the exercise of public service to the detriment of the user.[1] Corruption is said to have taken place when an individual is paid to perform or refrain from performing his duty either with gifts, promises or presents.[2] Corruption is also deemed to have occurred when an individual pays a compliant professional to do his work or refrain from doing so.[3] Corruption and fraud are legally, morally, and socially condemned in the society because it is the denial of the constitutional or legal principles of equality of citizens in rights and duties, and free rendering of public services etc.

Corruption is one of the worst most widespread forms of behaviour which is inimical to the administration of public affairs.[4] Despite the world recognition of the ills of corruption, the practice has been on the rise in society. For two consecutive years, Cameroon was classified by Transparency International as the most corrupt country with the lowest corruption perception index. As of June 2024, Cameroon is classified as the 21st most corrupt country in Africa with a corruption perception index of 27.[5]

Corruption remains one of the hindrances to the success of the fight against climate change in Cameroon. A number of those charged with the responsibility of ensuring the protection of the environment however demonstrate corruption tendencies. This is true with both some forestry as well as judicial officials. For instance, noted by the Congo Basin Forest Partnership, 'For several decades in Cameroon, corruption had made its bed on Cameroon's forest canopy, promoting illegality in the sector with serious consequences for the environment, local communities and the State's budgetary revenues.'[6] When forestry officials demonstrate such corrupt tendencies, illegal deforestation becomes the order of the day, and by extension, climate change becomes the price.

Unfortunately, the problem of corruption also stretches to the judicial sector in Cameroon. As Carlson Emmanuel notes,[7] corruption within the Cameroonian judiciary is 'fairly common.' He proceeds to cite a number of instances which prove his stance. As he explains, the allusion of the Head of State to the judiciary in condemnation of corruption is indicative of the prevalence of the vice within the judicial arm.[8] He further cites Justice Endeley's appeal to the public to cease from corrupting judicial officers. As Justice Endeley said, 'If you do not offer to corrupt him, he will remain uncorrupted; if you do not subject him to tribal or social pressures, he will remain free to judge in obedience to his conscience…' As Justice Endeley continued, 'all too often, one came up against judicial officers who looked on their office as a means of self-aggrandisement… There are judicial officers whose sense of justice and fair play was polluted by downright corruption, or by pressure arising from social, tribal or professional affinities, or by complicity with certain interests with mercenary motives.'[9]

The corrupt nature of officials charged with the responsibility of enforcing, protecting and adjudicating on environmental laws regulating matters such as climate change therefore remains a huge setback to the successful implementation, enforcement and protection of these laws.

3.7 Fragmented Legislation

In Cameroon today, several environmental statutes are made subject to implementation decrees from the

[1] Friedrich-Ebert-Stiftung, (n.d.). Corruption in Cameroon. Available online at: https://library.fes.de/pdf-files/bueros/kamerun/07797.pdf. (Accessed on the 25/02/2025).

[2] *Ibid.*

[3] *Ibid.*

[4] Fonja Julius, (2019). The Law in Cameroon and the Vexing Problems of Groundwater Pollution. *Scholars International Journal of Law, Crime and Justice*, *2*(4), pp. 96-109.

[5] The Nairobi Law Monthly, (n.d.). Top 30 Most Corrupt Countries in Africa. Available online at: https://nairobilawmonthly.com/20-most-corrupt-countries-in-africa-according-to-the-latest-corruption-index-study/. (Accessed on the 25/02/2025).

[6] CBFP, (n.d.). Cameroon's Anti-Corruption Unit Hard at Work-Corruption Perception Index in Cameroon's Forestry Sector Slumps, available at https://archive.pfbc-cbfp.org/news_en/items/LCC_cam.html. (Accessed on the 25/02/2025).

[7] Carlson Anyangwe, (1987). *The Cameroon Judicial System* (Yaoundé: CEPER).

[8] *Ibid.*

[9] *Ibid.*

President or Prime Minister, which take a long time to be made. Therefore, such legislations remain unimplemented until their implementation decrees are made. For example, pursuant to Section 17 of Law No. 96/12 of 5th August 1996 Relating to Environmental Management, the promoter or owner of any development, project equipment or labour, which is likely to endanger the environment, is obliged to carry out an environmental impact assessment.

Whosoever defaults or breaches the provision will be punished with a fine from two million FCFA to five million FCFA with imprisonment of from six months to two years.[1] However, based on Section 17(4) of same law, the terms and conditions for implementing the provisions on impact assessment shall be laid down by an enabling decree. It is however unfortunate that decree is still awaited, thus making the penal provisions unenforceable.[2]

The challenge of fragmented legislations is also evident in a number of other environmental legislations. For example, Law No. 2003/006 of 21 April 2003 to lay down Safety Regulations Governing Modern Biotechnology in Cameroon stipulates that 'the modalities for inspection and controls shall be laid down by regulations.'[3] Therefore, pursuant to that provision, inspectors or controllers cannot work under the Biosafety law except the enabling legislations are made available. It is heart-breaking that this enabling legislation is still awaited. Despite that, Sections 56, 60 to 64 provide a range of environmental offences to be investigated and prosecuted by inspectors who have been sworn.

This problem of fragmented legislations is also evident in the Mining Code, the Water Law and 1994 Forestry, Wildlife and Fisheries Regulations.[4] Conclusively, the impracticable nature of these environmental laws owing to fragmentation of legislations serves as a huge setback to the success of Cameroon's fight against climate change.

3.8 Inadequate Penalties for Environmental Crimes

Despite the severity and high degree of threat of environmentally unfriendly behaviours, the penalties often attributed to environmental crimes do not reflect the dangers they cause. For example, logging under personal authorization in communal forests for gainful purposes, or the act of logging beyond the period or quantity granted is punishable with just a fine of 5.000 to 50.000 FCFA or imprisonment for up to ten days or both such imprisonment and fine.[5] Similarly, the unauthorized felling of protected trees is punishable with a fine from 50.000 to 200.000 FCFA or imprisonment of for twenty days or both such imprisonment and fine.[6]

In *Ministry of Environment and Forestry v. Tame Soumedjong Henry and SOTRAMILK Ltd*,[7] where the respondents were engaged in the production of milk, they demonstrated a number of environmentally unfriendly behaviours. They discharged milky substances into streams, burned plastic yoghurt cases and other waste into the air just to mention a few. In response, the applicant prayed the Court to make the following orders: (1) an order restraining the respondent from polluting natural waters by discharging milky waste or other effluent into streams. (2) an order restraining the respondents from further polluting the atmosphere by burning plastic yoghurt cases and other waste into the open air; (3) an order restraining the respondent from further polluting the environment in general or perpetrating any environmentally harmful activities in the operation of SOTRAMILK Ltd (Milk Processing Factory) at Nkwen, Bamenda; (4) an order requesting the respondent to rehabilitate the polluted areas with the applicants supervision and a report to be sent to the Court by the applicant to that effect; (5) and for such further and other orders as the Court may deem fit to make in the circumstances.

The Court on its part upon finding the actions of the respondents harmful and contravening to the law, made the following two orders, (1) that the respondent from then restrained from further discharge of milky waste or industrial sewage into the stream. (2) And that the respondent takes steps to rehabilitate the polluted areas near the factory under the strict supervision of the applicant. The cost of rehabilitation was borne by the respondents.

Concerning the applicant's prayer 2, the motion was rejected by the Court for failing to propose a better option

[1] See Section 79 of Law No. 96/12 of 5th August 1996 Relating to Environmental Management in Cameroon.

[2] See Sama Nchunu Justice, Criminal Law and Environment, Prosecutors, Inspectors and NGOS in Cameroon, available at https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.608.1093&rep1&type=pdf. (Accessed on the 26/02/2025).

[3] See Section 34(3) of Law No. 2003/006 of 21 April 2003 to Lay Down Safety Regulations Governing Modern Biotechnology in Cameroon.

[4] *Ibid*, note 78

[5] See Section 154 of the Law N0. 94/01 of 20 January 1994 to Lay Down Forestry, Wildlife and Fisheries Regulations.

[6] Section 154 of the Law N0.94/01 of 20 January 1994 to Lay Down Forestry, Wildlife and Fisheries Regulations.

[7] CFIBa/145CM/02-03.

of eliminating the said plastic cases apart from burning. Prayer 3 was as well rejected for being so wide as to render the respondent vulnerable to its violation at every minute of their operation. Thus, as the Court noted, if prayer 3 was granted, it would be tantamount to telling the respondent to close down the factory which is irrational.

The decisions of the Court in the latter case are, however, commendable. Despite that, considering the degree of threat which environmental crimes pose, one would have expected to see a more vigorous ruling from the Court in such cases. Therefore, the inadequacy of penalties provided for perpetrators of environmentally harmful behaviour contributes to the setbacks to the fight against climate change by Cameroon.

4. Conclusion

Climate change has been a contemporary environmental hazard which almost every member of the international community is grappling with in contemporary times. Through a participatory approach between the state and private stakeholders, several practical measures have been adopted in a bid to combat climate change and promote sustainable development. Several successes have to this end been recorded in the fight against climate change and the promotion of sustainable development such as: enhancement of agricultural productivity; improved access to energy; improved health quality; and job creation. Despite these successes, several challenges have been faced in the fight against climate change in a bid to promote sustainable development, *inter alia:* Population Growth and Increased Deforestation; Lack of Awareness on Environmental Sustainability; Limited Financial Resources; Weak Institutional/Governance Frameworks; Limited Technological Capacity; Corruption/Bad Governance, amongst others.

References

ATMFP, (2024). Implications of Climate Policies over the Past Ten Years in Cameroon. Available online at: https://camepi.org/agriculture-and-trade/the-impact-of-green-policies-over-the-past-ten-years/?utm_. (Accessed on the 03/03/2025).

Carlson Anyangwe, (1987). *The Cameroon Judicial System* (Yaoundé: CEPER).

CBFP, (n.d.). Cameroon's Anti-Corruption Unit Hard at Work-Corruption Perception Index in Cameroon's Forestry Sector Slumps, available at https://archive.pfbc-cbfp.org/news_en/items/LCC_cam.html. (Accessed on the 25/02/2025).

Chu Donatus et al, (2023). Driving the Clean Energy Transition in Cameroon: A Sustainable Pathway to Meet the Paris Accord and the Power Supply/Demand Gap.' *Frontiers in Sustainable Cities*, *5*, pp. 1-23.

Ellisson D. et al, (2017). Trees, Forests and Water: Cool Insights for a Hot World. *Global Environmental Change Journal, 43*, pp. 51-61.

EUREDD Facility, (n.d.). Cameroon, available online at https://euredd.efi.int/countries/cameroon/. (Accessed on the 22/02/2025)

Foley J.A. et al, (2011). Solutions for a Cultivated Planet. *Nature Journal*, *478*(7369), pp. 337-342.

Fonja Julius, (2019). The Law in Cameroon and the Vexing Problems of Groundwater Pollution. *Scholars International Journal of Law, Crime and Justice*, *2*(4), pp. 96-109.

Food and Agriculture Organization, (2024). Women SME Accelerator Programme. Available online at: https://agrifood.net/wp-content/uploads/2024/01/SME-Accelerator-Website-Profile_Soukaina-Bouba-Dalil.pdf. (Accessed on the 03/03/2025).

Fotsing Metegam Isabelle Flora, Njomo Donatien, Rene Tchinda & Oumarou Hamandjoda, (2019). Impact of Sustainable Electricity for Cameroonian Population through Energy Efficiency and Renewable energies. *Journal of Power and Energy Engineering*, *7*, pp. 11-51.

Friedrich-Ebert-Stiftung, (n.d.). Corruption in Cameroon. Available online at: https://library.fes.de/pdf-files/bueros/kamerun/07797.pdf. (Accessed on the 25/02/2025).

GFW, (n.d.). Cameroon Deforestation Rates and Statistics, available online at https://www.globalforestwatch.org. (Accessed on the 20/02/2025).

Initiatives Climat, (n.d.). Energie D'Afrique Plus Entrepreneur Verts-Femmes. Available online at: https://www.initiativesclimat.org/Porteurs-d-initiatives/Energie-d-Afrique-Plus. (Accessed on the 03/03/2025).

Ivy Panda, (2020). Health Promotion and Sustainable Development. Available online at: https://ivypanda.com/essays/health-promotion-and-sustainable-development. (Accessed on February 25, 2025).

Margaret E. Kruk *et al*, (2018). High Quality Health Systems in the Sustainable Development Goals Era: Time

for a Revolution. *Lancet Global Health Journal, 5*(6), pp. 1196-1252.

Mekou Youssoufa Bele et al, (2011). Forests and Climate Change Adaptation Policies. *Journal of Mitigation and Adaptation Strategies for Global Change*, *16*, pp. 369-385.

Tamukum Princewill. A, (2023). Capacity Building on Climate Change in Cameroon: A Legal Appraisal. Available online at: https://ic-sd.org/wp-content/uploads/2023/10/2023submission_165.pdf. (Accessed on the 23/02/2025).

The Nairobi Law Monthly, (n.d.). Top 30 Most Corrupt Countries in Africa. Available online at: https://nairobilawmonthly.com/20-most-corrupt-countries-in-africa-according-to-the-latest-corruption-index-study/. (Accessed on the 25/02/2025).

UNDP, (n.d.). Climate Change Adaptation. Available online at: https://www.adaptation-undp.org/explore/western-and-central-africa/cameroon. (Accessed on the 22/02/ 2025).

United Nations, (2022). World Population Prospects. Available online at: https://population.un.org/wpp/DataSources/120. (Accessed on the 19/02/ 2025).

WHO, (2024). Diarrhoeal disease. Available online at: https://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease. (Accessed on the 24/02/2025).

WHO, (2024). Sanitation. Available online at: https://www.who.int/news-room/fact-sheets/detail/sanitation#:~:text=Poor%20sanitation%20is%20linked%20to,the%20spread%20of%20antimicrobial%20resistance. (Accessed on the 24/02/2025).

World Bank, (n.d.). Cameroon City Competitiveness Diagnostic. Available online at: https://documents1.worldbank.org/curated/en/838941529565340570/pdf/Cameroon-City-Competitiveness-Diagnostic.pdf. (Accessed on the 19/02/ 2025).

WWF, (n.d.). Deforestation Front; Cameroon, available at https://wwfint.awsassets.panda.org/downloads/deforestation_fronts_factsheet_cameroon.pdf. (Accessed on the 20/02/2025).

Zaelke. D, (2005). Making Law Work: Environmental Compliance and Sustainable Development. Available online at: https://www.ecolex.org/details/literature/making-law-work-environmental-compliance-and-sustainable-development-volumes-i-and-ii-mon-074246. (Accessed on the 22/02/2025).