Role of the Media in Climate Change Communication in the Northwest Region of Cameroon

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1 Introduction: Some Facts About the Northwest Region of Cameroon

The Northwest Region is the third most populated region in Cameroon. It is located between 6° 20′ N–6° 33′ N and 10° 30′ E–10° 50′ E coordinates, with a surface area of about 17,300 km^2. The capital city is Bamenda. The region saw an increase in its population from about 1.2 million in 1987 to an estimate of 1.8 million in 2010 (Ngonga and Tume 2015). The population density of 99.12 pers./km^2 is higher than the national average of 22.6 pers./km^2. The urban growth rate is 7.95%, higher than the national average of 5.6%, while the rural growth rate is approximated at 1.16% (Lambi 2001). The region was created in 1972 with five administrative divisions—Bui, Donga-Mantung, Menchum, Mezam and Momo. Today, it has seven divisions

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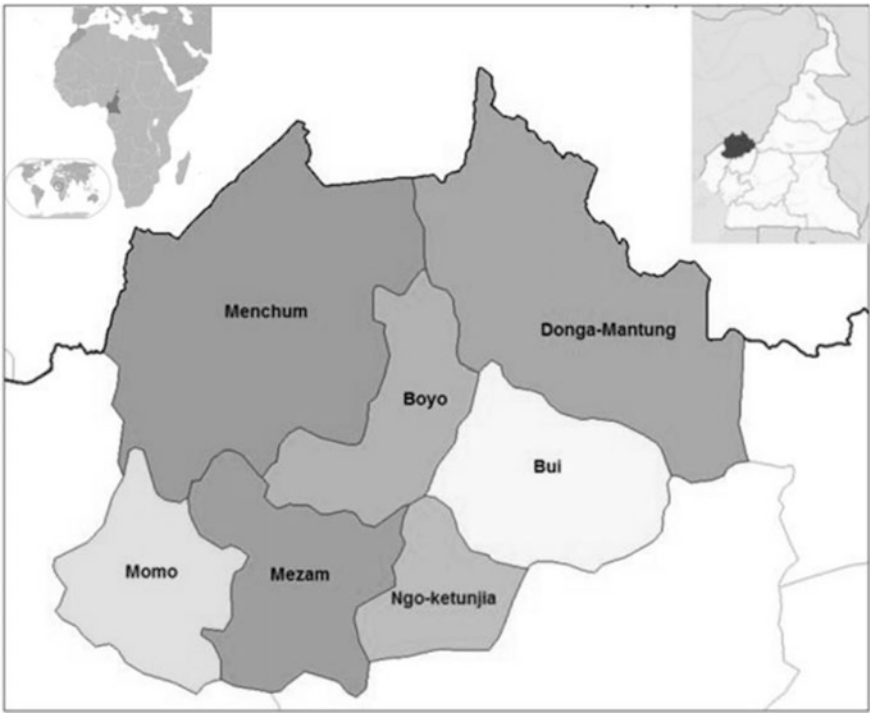

Fig. 1 Location of the Northwest Region of Cameroon. *Source* Wikipedia

(Fig. 1). The additions are Boyo—carved out of the Menchum and Ngoketunjia, split off from Mezam. Each division is further separated into sub-divisions. The basic unit of local government is the council. There are thirty-two councils in the region.

The Northwest Region of Cameroon is a part of the mountainous grassland savanna zone of Central and West Africa with the '*Aw*' climate type (tropical grassland). The high altitude farming zones with volcanic soils are rich in organic matter with an annual average rainfall of about 2500 mm. The area has great potentials for intensive agriculture (Molua and Lambi 2007). The government, Non-Governmental Organizations (NGOs), the media and socio-cultural groups have taken up initiatives to sensitise the population in the fight against climate change. For an ordinary farmer who lives in a rural area and for most people in town, the issue of climate change is not a strange phenomenon. The people relate their visible experiences of changing weather patterns to global warming. This makes them more engaged with the media in discussions that enable them to make sense of the perceived and visible changes. The fact that people speak about global warming all the times means that there is a new message circulating in society that changes the way people perceive the world and their relationship with the environment.

Cash flows from international donor organisations for many NGOs in the Northwest Region of Cameroon have shifted their policies to work on climate change related issues. Part of these projects are sensitisation and awareness campaigns in which people are discouraged from burning their land and cutting down trees (de Wit 2011). Moreover, at the grassroots level, planting trees has become an imperative in the call for thinking globally and acting locally. However, NGOs do not operate in isolation but rather jointly implement their activities. In November 2009, an association called Cameroon Traditional Rulers Against Climate Change (CAMTRACC) was launched. Inspired by the FAO of the United Nations, traditional rulers of the Northwest Region united to form a solid front at the grassroots level to fight against climate change.

2 Method of Study

In order to ascertain the role of the media in climate change communication, an ethical clearance was obtained from the Regional Delegation of Communication for the Northwest Region of Cameroon to survey media outlets. The instrument used was a questionnaire. A total of 28 media outlets composed of 25 radio stations and 3 newspapers were surveyed. The media outlets were asked to identify themselves by name, type (radio, television or print) and location town. They were also asked to specify their programs on climate as well as other programmes related to the environment. Again, the media outlets were asked how do you engage the public in communicating climate change issues and if the public receptive to climate change issues. Since climate change is linked to several aspects of the environment, another question was directed towards international environmental-related days. An additional question was on the use of social media in disseminating climate change information. The last question was on manifestations of climate change around the local environment. The responses were expressed as percentages and presented in tables. Some of the radio stations are not fully aware of all international days related to climate and the environment. This study therefore, is a sensitisation and outreach activity to inform them. A copy of the questionnaire was retained at each media house to keep them alert of all international days so that they can conduct more investigative journalism for objective reporting and raise more public awareness.

3 Drivers of Climate Change in the Northwest Region of Cameroon

Human activity has caused a variety of changes in different forcing agents in the atmosphere and land surface. A large number of greenhouse gases have increased over time from anthropogenic origin. Atmospheric aerosols have diverse and

complex influences on the climate. Human activity has modified the land cover and changed the surface albedo. Some of the gases and aerosols are directly emitted to the atmosphere whereas others are secondary products from chemical reactions of emitted species. The lifetimes of these different forcing agents vary substantially (Myhre et al. 2013). Anthropogenic land cover change has a direct impact on the Earth radiation budget through a change in the surface albedo. It also impacts the climate through modifications in the surface roughness, latent heat flux and river runoff.

The landscape of the Northwest Region of Cameroon is dominated with remnants of gallery forests under the threat of overgrazing and unsustainable agricultural practices. These stunted highland vegetation is very resistant to prolonged droughts. Slash and burn farming method the destruction of soil organic matter which often leads to bush fires during the dry season. Bushfires can cause severe consequences for the environment including loss of vegetation and wildlife. These fires also cause changes to the atmosphere such as increased levels of CO_2 in the air through large volumes of smoke and ash and localised change in weather. The impact of bushfires on the people of the region is devastating. Some of the affects are lasting health problems, poverty resulting from loss of livelihood, rural exodus, social displacements in families, intra-and inter-community conflicts from competition over scarce natural resources and many other negative effects such as insufficient pasture for cattle. Cattle grazing is not only an environmental unfriendly activity in the Northwest Region of Cameroon. It triggers more pressure on stunted vegetation. Animals also destroy food crops, thereby intensifying farmer-grazier conflicts. This makes the Northwest Region of Cameroon highly vulnerable to climate change like most areas in sub-Sahara Africa.

Climate change-related impacts in the Northwest Region of Cameroon include temperature fluctuations from year to year, desiccation of natural habitats and more frequent droughts and floods. Such changes have a negative impact on agricultural production and food security. Similarly, the sustainability of some rural infrastructure would also be negatively impacted by climate change. The health of people in the area could be worsened by climate variability (drying up of water resources and flooding are closely related to an increase in water-borne diseases such as cholera).

Another driver of climate change in the Northwest Region of Cameroon is the '*water vampires*'—eucalyptus trees which many consider as '*environmental terrorists*'. Eucalyptus plantations have replaced the indigenous trees. They are used for fuel wood and electric and telecom transmission poles in Cameroon and beyond. Following the slumping of coffee prices in the 1980s, coffee plantations were cut down in favour of eucalyptus. The eucalyptus also provides revenue for plantation owners and municipal councils at the detriment of water resources and the environment. Other extremes of climate change in the Northwest Region are urban flooding in Bamenda, landslides, mudflows and rock falls emanating from heavy rainfall. Some of these local realities have been the erratic rainfall, especially the onset of rain at the beginning of the wet season and prolonged dry seasons. These variations in the climate have greatly disrupted the agricultural calendar. These

climatic variations also have negative with multiplier effects like drying up of some annual springs, frequent droughts during the rainy season, increasing local temperatures, poor harvests of staple crops like maize, beans and Irish potatoes, incessant water crisis throughout the year, reduction in volumes of rivers, springs and other water bodies. These alterations constitute the climate change messages that these media houses broadcast.

Since 2012, Cameroon has a National Climate Change Action Plan (NCCAP) aimed at building the capacity of socio-economic actors to adjust to climate change (UNDP 2009; African Development Fund 2013; Egan 2013). A series of adaptation measures include:

- assessment of risk and vulnerability studies to identify the best intervention strategies
- sensitisation and training of traditional rulers (Fons, Chiefs, Aldors), mayors of municipal councils and farmers on environmental protection and climate change adaptation
- knowledge building on climate change adaptation by training many stakeholders
- promotion of improved stoves to ease pressure on wood resources
- increase in the proportion of reforestation of watersheds through analogue forestry
- rangeland improvement activities to reduce bush fires and consequently scale down greenhouse gas emissions.

4 Role of the Media in Climate Change Communication

The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) is widely recognised by academics, journalists, communications experts, governments and civil society organizations to have marked strides in the approach the IPCC communicates its agenda (IPCC 2016). The communication of AR5 saw both greater professionalism at all stages of the process and greater breadth and diversity in the subsequent outreach accomplishments. The results of this can best be seen in the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC) reached at the Conference of Parties in December 2015 (COP-21). This agreement is based on assessments that the IPCC communicated to negotiators through the Structured Expert Dialogue and UNFCCC meetings. The IPCC has also experienced growing calls from policymakers and other users to do more with its communications. Some improvements to IPCC communications came not from the communications team but from the authors of AR5—the use of headlines statements in the Working Groups I, II & III contribution to AR5 and the Synthesis Reports. Other improvements for AR5 included:

- Responding to media questions before completion of the reports
- Media workshops to clarify the workings of the IPCC and how it produces assessments
- Making IPCC communications more professional by working with external communications specialists
- Media training for bureau members and authors
- Systematic planning of interviews with a range of authors, both face-to-face and remotely
- Arranging facilities for broadcasters
- Production of scientifically rigorous but compelling videos, overseen by the working group co-chairs and IPCC Chair
- Ambitious programme of outreach activities all over the world
- Cooperation with third parties producing versions of the report targeting specific sectors in specific regions
- Use of social media to publicise IPCC findings and outreach activities.

This gives the IPCC a strong foundation to build on for its future climate change communications.

In line with the IPCC, Change Communications, a not-for-profit and non-political organisation trained twenty community radio journalists from ten stations in the Northwest Region of Cameroon on the basic concepts of climate change and techniques of reporting it in March 2016. At the end of their training which held in Bamenda, they were expected to produce carefully tailored programs and professionally sound news reports on climate change issues in their respective localities. There is evidence that the information and messages contained in the programs produced so far are timely and useful for the public. Media houses in the Northwest Region of Cameroon produce a variety of climate-focused programs (71.42%) and other environmental-related programs (67.85%) (Table 1).

The public is receptive of these programs, though there is limited use of social media to fully engage the youth in climate change communication. Other stakeholders involved in the training of journalists on climate and environmental reporting in Cameroon include Media Synergy for the Promotion of Biodiversity Conservation and Community Development against Climate Change-Cameroon

Table 1 Climate—environmental focused programs in Northwest Cameroon

Item	Responses	
	% Yes	% No
Daily weather forecast	03.57	96.43
Climate-focused programs	71.42	28.58
Other environmental-related programs	67.85	32.15
Public perception of climate change messages	100.0	00.00
Use of social media to communicate climate change	42.85	57.15

Source Fieldwork, May–July 2016

(MECCOD), Ndop; Earth Journalism Network, Washington DC; Pan-African Parliamentarians Network on Climate Change; Climate Change Radio Network-Bamenda as well as the Pan-African Climate Justice Alliance (PACJA) amongst others.

The media houses in the Northwest Region of Cameroon have interactive programs on climate change and other environmental issues. During such live broadcasts, the public is engaged through phone-in and text messages to contribute to the issues at stake as well as to ask questions and get clarifications from the resource persons in the studios. This is an indication that the public is very receptive to climate change messages (Table 1). The radio stations broadcast a variety of climate and environmental related programs (Table 2). They have more than one climate and environmental related programs. The most popular of the programs is '*You and the Environment*'.

'*You and the Environment*' is aired by Stone FM Community Radio Ndop (Ngokentugia Division), Voice of Moghamo Batibo (Momo Division), Savannah Frontier Radio Ndu (Donga-Mantung Division), Radio Hot Cocoa Bamenda (Mezam Division), City Community Radio Kumbo (Bui Division) and Cameroon Baptist Radio Bamenda (Mezam Division). In addition, three radio stations—Cameroon Baptist Convention Radio Bamenda, City Community Radio Kumbo and Afoni Community Radio Tatum indicated that this program handles a variety of issues including climate change. Two stations—Savanna Frontier Network Nkambe and Savannah Frontier Radio Ndu, both in Donga-Mantung Division transmit programs entitled '*Climate Change*'.

Three newspapers—The GrassLander in Kumbo (Bui Division), The Eye (Mezam Division) and Eden Newspaper (Regional Bureau, Bamenda, Mezam Division) that participated in this investigation run columns—'*Environment and Agriculture*'; '*Climate Messenger*' and '*Green Corner*' respectively. The GrassLander also runs a '*Students*' *Corner*' where secondary students report activities of their schools' environmental clubs.

Other programs include '*Environmental Issues*' by Afoni Community Radio Tatum (Bui Division); '*Emergence*' through Renaissance Community Radio Ndu (Donga-Mantung Division); '*Our Environment*' via Donga-Mantung Community Radio Nkambe (Donga-Mantung Division); '*Environmental Education*' by Jakiri Community Radio (Bui Division); '*Farmers*' *Corner*' by Stone FM community Radio Ndop, Donga-Mantung Community Radio, Savanna Frontier Radio Network Nkambe, Savannah Frontier Radio Ndu and Renaissance Community Radio Ndu. '*The Green Environment*' is broadcast by Abakwa FM Bamenda (Mezam Division). *Reflections on Pope Francis*' *Laudato Si*' is a broadcast of the two Catholic radio stations—Radio Evangelium Bamenda (Mezam Division) and Radio Evangelium Kumbo (Bui Division). Three stations air programs on environmental conservation. These are '*Environmental Conservation*', '*Conserve Kilum Forest*' and '*Environmental Protection*' by Ndefcam Radio Bamenda (Mezam Division), Oku Rural Radio and Bui Community Radio (Bui Division) respectively.

Table 2 Climate—environment-related programs on the media in Northwest Cameroon

Media house	Climate program	Environment program
CRTV Northwest, Bamenda	Nature	Nature
Santa Meteo Radio	Climate and environmental slots	Climate and environmental slots
Ndefcam Radio, Bamenda	Environmental conservation	Environmental conservation
Cameroon Baptist Radio, Bamenda	You and the environment	You and the environment
Rush FM Radio, Bamenda	Daily weather forecast	–
Belo Community Radio	Water forum	My community and I, famine corner
Bui Community Radio, Kumbo	Environmental protection	Bui development forum
The GrassLander Newspaper, Kumbo	Environment and agriculture	Students' corner
Oku Rural Radio	Focus on our environment for our tomorrow	Conserve Kilum forest
City Community Radio, Kumbo	You and the environment	You and the environment
Afoni Community Radio, Tatum	Environmental issues	Environmental issues
Savannah Frontier Radio, Ndu	Climate change, you and your environment	Agriculture-our calling
Renaissance Community Radio, Ndu	Emergence	Apiculture, gardening, organic manure
Voice of Moghamo, Batibo	You and the environment	Water is life
Savanna Frontier Radio Network, Nkambe	Climate change	Farmers' corner
Donga-Mantung Community Radio, Nkambe	Our environment	Farmers' show
Radio Evangelium, Kumbo	Reflections on Pope Francis' *Laudato Si*'	Agricultural Training Program (ATP)
Jakiri Community Radio	Environmental Education	Farmers' corner
Stone FM Community Radio, Ndop	You and your environment,	Hygiene and sanitation, women and changing world, farmers' corner
Abakwa FM, Bamenda	The green environment	The green environment
Radio Hot Cocoa, Bamenda	You and the environment	You and the environment
Radio Evangelium, Bamenda	Reflections on Pope Francis' *Laudato Si*'	–

(continued)

Table 2 (continued)

Media house	Climate program	Environment program
The Eye	Climate messenger	Climate messenger
Eden Newspaper	Green corner	Green corner
Foundation Radio, Bamenda	–	–
Rainbow Radio, Mbengwi	–	–
Sky Sports Community Radio, Bamenda	–	–
Sky FM, Ndu	–	–

Source Fieldwork, May–July 2016

The regional radio station of the Cameroon Radio Television (CRTV) Northwest runs a weekly program—'*Nature*'. This program handles a cross section of environmental issues such as climate change, water resources, environmental impact assessment and urban waste disposal in the city of Bamenda amongst others. This is a weekly live-studio broadcast with resource persons to handle the themes for each program. The presenter of the program in collaboration with the Regional Delegations of Agriculture and Rural Development, Environment, Nature Protection and Sustainable Development carry out field investigations across the entire region on climate change vulnerability, mitigation and adaptation. CRTV Northwest also prepares and broadcast special packages for the following international days because they relate to climate and the environment: world water day, world meteorology day, earth day, international day for biological diversity, world environment day, world day to combat desertification and droughts, international day for the preservation of the ozone layer, world tourism day, world habitat day, international day for natural disaster reduction, world food day, world cities day, international day for prevention of the exploitation of the environment in armed conflicts and international mountains day. Although not all radio stations run programs on climate and the environment, they still have news items on these themes, especially during international days like world water day, earth day, world food day and others.

The media houses also assign their staff to carry out field investigations of some physical evidences of the changing climate. Some of these field investigations include degraded watersheds, drying water bodies, recurrent droughts in agricultural lands, especially at *hollow frontiers* (fertile agricultural lands where farmers move seasonally), unsustainable agricultural practices as well as other anthropogenic-driven environmental changes. In order to effectively pass across the messages, use is made of local languages and Pidgin English to communicate the effects of climate change based on local realities. The outcome of these field investigations culminate in the production of radio documentaries on local vulnerabilities and indigenous adaptations to climate change.

5 Limitations to Climate Change Communication

Climate change is a challenging issue to convey because the long-term average changes set in slowly and imperceptible (Moser and Dilling 2011). Changes in medium-term and long-run have emerged only recently from the daily, seasonal and inter-annual variations. In the same way, not all media houses in the Northwest Region of Cameroon are taking climate and environmental issues seriously. Some of these radio stations were hesitant to participate in the study with the argument that climate change is caused by industrial emissions in the developed countries.

Others who participated in the survey do not run any programs on climate change because of inadequate resource persons to tackle the subject and their inability to hire specialists in climate and environmental issues. These include Sky Sports Community Radio Bamenda, Rainbow Radio Mbengwi, Sky FM Ndu and Foundation Radio Bamenda (Table 2). Again, the general reporting on climate and environmental issues is inadequate (Table 3). Apart from world water day, world environment day and world food day, the rest of the international days related to climate and the environment are under-reported. One reason for this is that the media outlets do not know the dates which these international days are commemorated.

Table 3 Reporting climate and environmental international days

International day	Date	Freq	%
World water day	March 22	28	100.0
World meteorology day	March 23	03	10.71
Earth day	April 22	13	46.42
International day for biological diversity	May 22	06	21.42
World environment day	June 5	21	75.00
World oceans day	June 8	01	03.57
World day to combat desertification and droughts	June 17	11	39.28
International day for the preservation of the ozone layer	September 17	08	28.57
World tourism day	September 27	09	32.17
World habitat day	October 3	10	35.71
International day for natural disaster reduction	October 12	09	32.17
World food day	October 16	16	57.14
World cities day	October 31	04	14.28
International day for prevention of the exploitation of the environment in armed conflicts	November 6	08	28.57
International mountains day	December 11	03	10.71

Source Frequencies and percentages computed from field data (May–July 2016)

Some of the radio stations are not living up to expectation for the purpose for which they were created. For instance, Santa Meteo Radio (Mezam Division) does not broadcast daily weather forecast. They do not also know the date which world meteorology day is commemorated. However, they have news items on the risks of climate change from time to time. Santa Meteo Radio is only aware of world water day, international day for the preservation of the ozone layer and world food day.

Another shortcoming of the media houses is the mastery of the concept of climate change. A significant proportion of the staff in these media houses have limited knowledge of the science of climate and environmental change. Thus, there is need for capacity building and training. Other factors, especially policy options and resistance to change from indigenous communities come into play. Thus, for communication to be effective in leading to active engagement, it must be supported by policy, economic and change of mind-set of the people that will pave the way for the concerns and good intentions to be achieved.

6 Conclusions

Climate change communication is gaining grounds in the Northwest Region of Cameroon. All the media houses surveyed in this study are fully aware of the vulnerabilities and direct impacts of climate change around their local environment. Faced with these evidences, climate communicators have been engaging the public in the fight against climate change. First, they attempt to increase public understanding of the prevailing climatic and environmental conditions and provide more information on the assumption that knowledge is the major stumbling block to action. Second, they resort to fear tactics to motivate positive action, but often, this achieves the opposite effect. Third, they base climate change communication on the credibility of the authorities like the IPCC and other climate scientists. The local media insists and make it clear that their reporting is based on scientific framing of climate change as the most convincing story, irrespective of the differences among audiences. Finally, the local media in the Northwest Region of Cameroon try to reach the masses through traditional communication channels. Communication on climate change is only part of the picture. Raising awareness and discussing issues does not directly result in behaviour change or policy action.

Future Prospects There is need for more interactive radio programs on climate and the environment especially for the media houses that do not air such programs. Journalists need more capacity building and training on climate change and environmental reporting. Journalism clubs should be encouraged in schools where students can disseminate environmental issues to their peers. Radio quizzes should aired during all climate and environment related international days. Socio-cultural, religious gatherings like churches should be used as communication channels on the dangers of unsustainable activities like poor agricultural methods. During international days, sketches and poems should be used as a means to get across

climate change messages. Hands-on-the ground projects like tree planting should be encouraged through communities and NGOs. Traditional address systems (*Town Cryer*) should be used to sensitize the rural populations on the dangers of their activities like overgrazing, slash and burn farming and bush fires. Newspapers have a duty to dedicate columns for climate and the environment. Use of local languages to reiterate causes of climate change, vulnerability and adaptation should be aired frequently through radio stations. Posters in public spaces on the dangers of climate should take precedence. Sensitisation and workshops at grassroots should be encouraged. The youth should be fully engaged in climate change communication through popular social media and community forums.

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