

THE SOCIO-CULTURAL IMPLICATIONS OF CLIMATE CHANGE IN CAMEROON

Prof. Corneliue M. Lambi

Faculty of Social & Management Sciences, University of Buea, Buea.

Email: lambimc@yahoo.com

ABSTRACT

Climate change impact has remained a serious threat to man and more particularly in the water-stressed environment of north Cameroon where in most cases, man struggles for bare survival by eking out a living from a harsh or hostile climatic environment. In this region, the socio-cultural impacts can be devastating as has been shown by the El Nino events of the 1970s and the mid-1980s when the Sahelian droughts struck with implacable ferocity thereby exposing the constant vulnerability of man in the Sahelian marginal precipitation zones to the whims and caprices of climate variability. The socio-cultural impact of climate change could be perceived through the windows of mass migration and the emergence of environmental refugees, rural unemployment of the agrarian populations, underdevelopment and the reinforcement of rural poverty, and threats to regional food security. While the cultural aspects that conserve the environment serve as an insurance against climate change impact should be encouraged, the good life culture continues to degrade and expose our environment to the caprices of climate change in much the same way as the cultural resignation to the concept that climate change is an act of the gods to be endured.

Key words: Socio-cultural, impacts, climate, change, Cameroon

RÉSUMÉ

L'impact de changement climatique demeure une menace sérieuse à l'humanité et plus particulièrement dans la région sèche du nord Cameroun où dans la plupart des cas, l'homme lutte pour une simple survie dans un environnement climatiquement hostile. Dans cette région, les impacts socio-culturels peuvent être négativement énorme comme a été montrées par les événements d'EL Nino des années 70 et du milieu des années 80 où les sécheresses Sahélienne ont frappées avec la férocité implacable exposant ainsi la vulnérabilité constante de l'homme dans ces zones de précipitations marginales Sahélienne aux caprices de la variabilité de climat. L'impact socio-culturel du changement climatique peut être aperçu par les fenêtres du déplacement massive des réfugiés environnementaux, le chômage rural des populations agraires, le sous-développement et le renfort de la pauvreté rurale, et des menaces pour la sécurité régionale de nourriture. Tandis que les aspects culturels qui conservent le environnement et qui restent comme une assurance contre l'impact de changement climatique devrait être encouragée, la culture de bonne vie (good life concept) continue à dégrader et exposer notre environnement aux caprices du changement climatique plus ou moins de la même façon comme la démission culturelle au concept que le changement de climat est un acte des dieux à supporter.

Mots Cles: Socio-culturel, impacts, climatique, changement, Cameroon

INTRODUCTION

In the wake of the growing economic malaise today, the caprices of climate change generally have a negative impact on man and human infrastructures. In so doing, these negative impacts turn backwards the arms of development. Perhaps, this kind of developmental downturn which negates positive outcomes is better captured by the expression that "we cannot go back on the work that has been done by failing to go on with the work that is to be done." Although there has been development, there is still a greater need for more development in order to meet the needs of the teeming world population. Climate change disasters come only to eradicate what had been achieved rather than leaving mankind to forge ahead with the more pressing imperatives of new development.

The relevant government ministries, the NGOs and the local stakeholders, who make determined efforts to bring relief to the victims whose lives are thus affected scarcely, have anything good or praiseworthy to write home about other than the fact that the victims were given the rudimentary facilities of basic survival. That, indeed, is not an attractive story to tell or write home about.

Today, the phenomenon of climate change remains a major threat to the socio-economic advancement of most communities. The growing importance of climate stems from man's endeavours to establish a suitable interface between our capricious climatic conditions today and the resources on which man is himself dependent. This phenomenon which has been described as a "prisoner's dilemma, a free-rider problem and the tragedy of the commons all rolled into one" (Duncan, 2009) is one of the most urgent contemporary issues and possibly the hardest to tackle (Crate and Nuttall, 2009). Although climate change remains the most important challenge of the 21st Century, a consideration of climate change issues in recent years has focused largely upon the physical impacts which it could have and our need to adapt human activities in order to mitigate the undesirable impacts.

While considerable attention has been paid to broad mitigation and adaptation issues, relatively little has considered the effect of climate change on social and cultural systems and how these systems can best be organized to mitigate and adapt to the changing climatic situation. Nonetheless, the impacts on culture are likely to be just as catastrophic as those on biodiversity (Crate & Nuttall, 2009).

There is considerable evidence that climate change will directly affect people as communities are displaced, communal lands are degraded and sacred sites are lost. In addition, it is likely that climate change will affect intangible cultural heritage including customs, practices, traditional knowledge and Indigenous languages, only to name a few (Crate and Nuttall, 2009). It thus threatens indigenous and traditional communities.

Social Dimensions of Climate Change

The socio-cultural impacts of climate change can largely be discerned through the window of the prevailing economic perspective. The search for better socio-economic and socio-cultural enhancement remains a continuum of human activities. So it is a large undertaking without a start or an end.

Although there are several social dimensions of climate change, this paper examines the socio-cultural aspects which stem from the threatening sporadic paroxysmal occurrences. These range from the alarming and growing numbers of climate related refugees, the problem of underdevelopment due partially to destruction, threats to regional and national food security, rural unemployment due to the loss of economic production, cultural perceptions of climate change issues, culture and policy perspectives and "The Good Life Concept".

Climate Change Refugees

Society obviously depends on climate. Just as wars create their own refugees and generate the mass movement of people, climate change has produced its own refugees. It is perhaps one of the most tragic occurrences that provoke the massive displacement of people in the sahelian zone of West Africa. So the increasing trends of global warming have opened up a continuous southward migratory tides and an increase in departures of more herdsmen towards the more favourable southern grazing lands (Boutrais, 1973). Because of the harsh and extremely severe droughts from 1969 to 1973 which left a devastating toll on herds of cattle and livestock in the sahelian zone of West Africa, there were massive movements of people towards the southern less affected sahelian margins.

Climate change is likely to have far-reaching and catastrophic social impacts and will affect communities in different ways (Earth Watch Educational Resources). Previous climatic episodes as shown by the devastating droughts of the 1970s and the mid-1980s saw the massive displacement of many sahelian people of West Africa, who, having lost their herds of cattle and sheep and consequently their *raison d'être* trooped southwards into the capital cities in search of food aid from

government and international organisations. This was the period when many Western Newspaper Tabloids carried the captions which said that "Millions Are Dying In West Africa".

Droughts are perhaps the greatest cause of deaths in the sahelian regions of Africa because they are always associated with severe food insecurity as was the case in the 1970s and mid-1980s. Food production such as grain harvest in these dry water-stressed environments is often at risk. The African sahel and savanna regions are particularly vulnerable in this regard.

On the other hand, Mozambique in February 2000, witnessed unprecedented widespread flood magnitudes which inflicted untold social and environmental damage on nearly 800.000 people through the lack of adequate sanitation and drinking water. In much the same way, in June 2000, floods forced some 6000 people out of their homes in the low income areas of the Mexican Chalco valley. So the history of massive forced movements is here to stay given the increasing threats today arising from global warming and climate change.

Vulnerability to climate change impacts depends on differences in geography, technological resources, governance and wealth. Ironically, it is often the world's most impoverished nations that are most vulnerable to the effects of climate change - nations that have the least resources to adapt and cope with these effects. Communities in developing countries which are making little or no direct contribution to climate change are likely to be among the most affected. In this respect, it has been estimated that by 2050 there will be more than 250 million people who will be forced to flee their homes due to drought, desertification, sea level rise and extremes of weather or climatic events.

UNDERDEVELOPMENT

While underdevelopment remains a problem for many rural communities in Cameroon, (Figure 1) climate change comes to reinforce the vicious cycle of underdevelopment and poverty. As man looks at the bright side of climate as the source and mainstay of agricultural production, the severe and negative manifestations of climate are scarcely envisaged. Yet crazy bursts of climatic elements extreme rainfall and extreme temperatures bring some unwelcome disasters. Consequently, climate change as shown by extreme

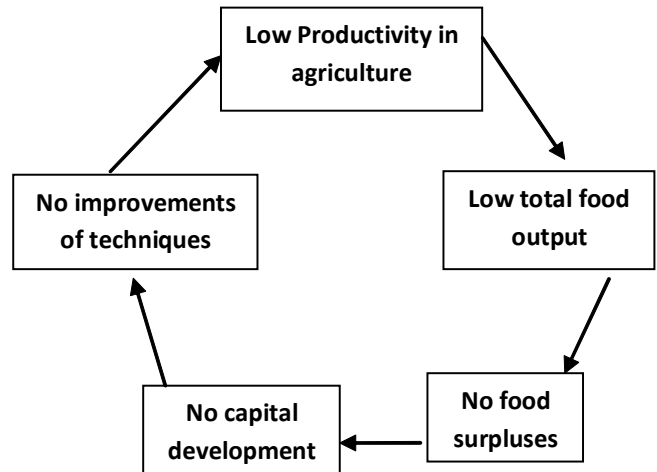


Figure 1: The vicious cycle of underdevelopment
Source; Graves, Lidstone &Naish (1988)

A hydro-climatological event as floods and drought has created additional stress on water supplies which are essential for mankind and ecosystem sustenance. Much of our electricity for the cities and industries in developing countries comes from hydro-electric dams. With climate change, economic and industrial production is significantly affected as less energy is available during droughts when stream flow decreases. A drop in stream flow accounts for the epileptic supply of electricity, which in turn, impinges on our industrial and economic production. Climate change has left significant signatures of either more or less than expected rainfall which results in crop failures, the prevalence of disease vectors, floods and droughts and their attendant effects as well as shrinking water resources.

Furthermore, in the rural communities characterized by low incomes and low technological inputs, drought occurrences lead to a great fall of the water table. Ground water is disappearing and many rivers are running dry. In the circumstances, both surface and ground water resources become scarce. As the peasant communities do not have the technology of tapping water from the deep seated aquifers, and do not even have the financial resources to pay for such technology, they spend several hours each day in search of water from available distant water sources.

Field data from several parts of the Far North Region shows widespread evidence of abandoned settlements arising from the harsh dry spells which make water availability an urgent social crisis. Unless the ground water parameter is feasible and taken into due consideration, the construction of new homes and hamlets outside the traditional setting usually meets with failure and consequent abandonment because of water

stress, a situation that is usually worsened by unwelcomed extreme climate change events.

Perhaps the lean phreatic water table for the Far North Region of Cameroon has a better story to tell. Ndenecho and Fonteh (2012) hold that climate change which is associated with floods and droughts will reduce the volume of water which will be available for ground water recharge. And socially, traditional irrigation is dependent on the availability of surface water resources. The use of surface water is compatible with their cultural and indigenous knowledge systems. But the replacements of the traditional system by the modern one would require large capital investments for the construction of the engineering infrastructures. Government assistance is needed in this respect given the expensive costs of construction.

THREATS TO FOOD SECURITY

In Cameroon where more than 60% of the economically active population is engaged in the agricultural sector (Yahmed, 2000; Lambi, 2009) climate variations particularly with reference to rainfall amounts and rainfall intensity become an issue of public concern. In the northern water-stressed part of the country, the onset of the rains represents an important event for the economic livelihoods of the agricultural population. This is very significant because Cameroon is largely dependent on rain-fed agriculture and its poor economic state makes it more vulnerable to climatic shocks. So when potable water becomes a problem during drought occurrences, the question of water for the irrigation of thirsty agricultural lands simply blows in the wind. The relatively drier and water-stressed savanna and the Sahelian regions north of the Adamawa Highlands are, indeed, agriculturally vulnerable sectors of Cameroon. These threats are only getting worse. Moreover, the seasons are becoming largely unpredictable. Hence, the much needed rainfall for crop cultivation becomes less reliable thereby threatening food security.

Climatic data for this Sudano-Sahelian region has shown several episodes of drought (Table 1 and Figure 2), most of which coincided with the El Nino events that have affected much of the Sahelian region of West Africa (Lambi, 2010). Here, the variation of rainfall from year to year and sporadic floods and droughts are significant in Cameroon's arid lands in transition (Ndenecho Lambi, 2010). Unfortunately, given the cultural background and the cultural perception of the Cameroonian sudano-sahelian population, the application of elaborate irrigation systems except for

the Lake Chad Basin and the valleys adjacent to the main rivers that run across the region, appear for now to be projects or innovations for the future. So their food supply systems remain vulnerable in the wake of the recurrent climatic fragilities.

One of the areas where climate change has led to acute food insecurity remains the Horn of Africa which has been well known for the occurrence of droughts. And in 2011 for example, it experienced the worst drought in 60 years, a situation which was indeed catastrophic for the agro-pastoral populations of north-eastern Kenya. Hunger struck the area. Water resources dried up and it was a big disaster for the agro-pastoral and nomadic communities which depend on their livestock for their survival (Oneko, 2012). Much earlier in 2008, millions of people across the same Horn of Africa were exposed to the negative impacts of climate change when crops failed and livestock died due to droughts. And with the rising global food crisis, it left some 7million people in Ethiopia, Kenya, Somalia and Somaliland fights against hunger and destitution. Food security in this region is deteriorating as a result of increasing droughts. These examples provide significant signposts to all stakeholders that they must put in place some mitigating measures which could serve as safety valves to reduce food vulnerability in the Sahelian north.

So in order to ensure that people have enough food, the agricultural landmark must be rising to cope with the increasing population growth. Moreover, such an occupational landmark must also be environmentally sustainable since mother earth has the Herculean task of providing food and shelter for all mankind. While much higher yields in food production are essential to overcome the problem of hunger and starvation arising from the unexpected caprices of our weather and climate, the purchasing power of the poor, vulnerable rural farmers also needs to be ameliorated. However, worldwide experience has unfortunately shown that in times of such natural disasters, economic speculation through market pricing sometimes accentuates matters by driving up costs. These are all unfortunate scenarios which impact considerably on the social livelihoods of the rural poor.

The socio-economic and the human development needs of our rural communities are also well known. So there is a need to help them improve their agricultural production and thereby improving on their socio-economic opportunities.

Table 1: Rainfall Variability between 1934 and 1984

Location	Lowest rainfall		Highest rainfall		Variability
	Year	Amount (mm)	Year	Amount (mm)	Percent
Guider	1946	682.6	1982	1181.0	73.0
Lam	1967	615.6	1978	1280.3	108.0
Maroua	1944	548.1	1981	1032.0	88.3
Mora	1941	390.0	1938	1117.0	186.4
Waza	1969	381.9	1970	879.3	130.2
Kaele	1945	380.3	1955	1162.9	195.1
Doukoula	1983	558.2	1953	1261.7	126.0
Bago	1984	400.6	1975	933.6	133.0
Yagoua	1934	480.9	1953	1213.5	152.3

Source: Beauvilain (1985)

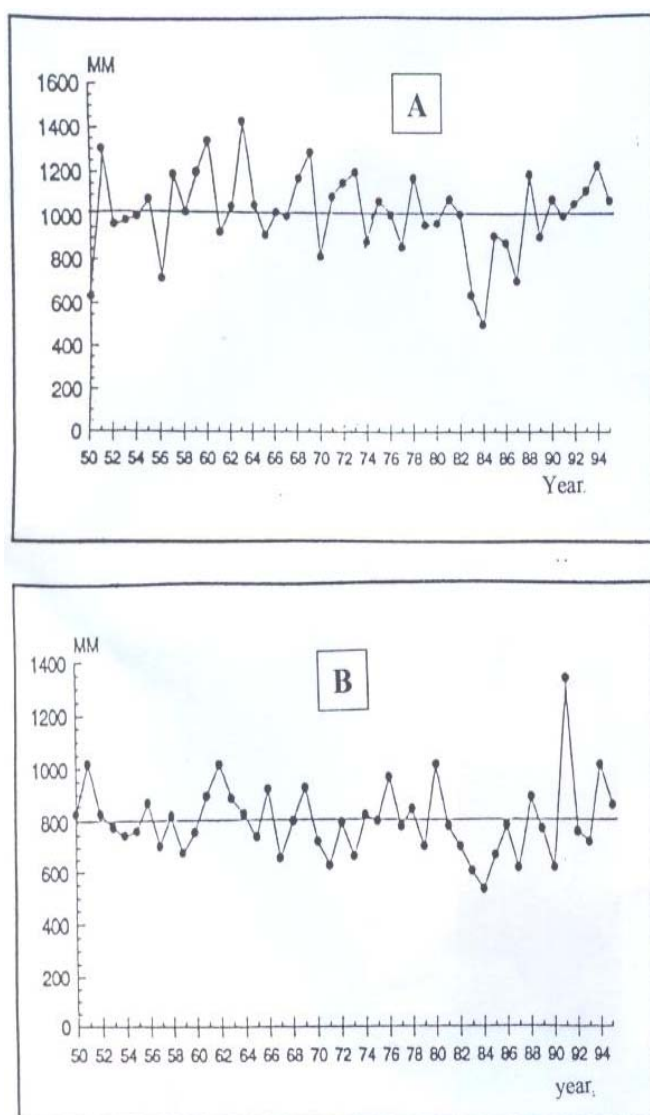


Figure 2. Evolution of Annual Rainfall in some Stations.

A=Garoua from 1950-1995 & B=Maroua from 1950-1995

(After Donfack, Boukar and M'Baindoun, 1996)

RURAL UNEMPLOYMENT

While rising unemployment is the order of the day, climate change which affects the productive capacity of the peasants, comes in to exacerbate the unemployment of women and the youths who are closely attached to this economic sector. Furthermore, the dearth of many social and economic infrastructures in the face of a deteriorating natural environment characterized by over-exploitation and a rapidly changing climate all tend to hold grim prospects for the rural population who are the major stakeholders in agricultural production. And since agriculture remains their dominant life-line and holds a much greater potential for poverty alleviation, the need for environmental sustainability in order to ensure an improved socio-economic status of the rural world cannot be overemphasized. So climate change scenarios remain an all time threat to our agricultural communities which are characterised by low income levels and low economic and agricultural productivity.

CULTURAL SETTING

A strong connection exists between cultural institutions and conservation policies. Indeed, some indigenous cultural practices that can be helpful for conservation should be encouraged. This could represent an excellent opportunity in the climate change management dispensation. Some of these include the 'Sacred Forests' or the home of the gods. The indigenous belief that the forest was the sacred home of the gods and so must be protected served as an effective conservation measure in the traditional societies. However, as this cultural value is now trampled upon giving way to extensive deforestation, the threats of climate change have become more apparent today and would evidently continue to do so until man realizes the close relationship between forest conservation and climatic stability. Deforestation of vulnerable water catchments due to logging is an important factor in the creation of

droughts and floods. In an effort to halt the continuous savanisation and sahelisation processes in the drier parts of northern Cameroon, the government of Cameroon has given the afforestation programs much prominence as shown by its tree planting programs. However, there is no way afforestation in this region can be done on a scale that would be sufficient enough to restore its former conducive status. Thus, it is perhaps necessary to indicate that the clamour for sustainable development can only effectively succeed if mankind gets back to its roots and adapts a more environmentally humane picture in his pursuit of socio-economic advancement.

CULTURAL PERCEPTIONS

Droughts and floods are natural realities in human society. However, various anthropogenic activities have caused environmental transformations thus reinforcing the magnitudes of their occurrences. Regrettably, in ignorance arising from cultural perceptions, these climate-induced or climate accelerated hazards are considered to be the natural acts of the gods which should be endured. With such cultural perceptions which push man's significant contributions to the reinforcements of these phenomena to the background and consider them as acts of the gods to be endured, the search for viable alternatives to mitigate their impacts blows in the wind. Yet, man's role in changing the face of the earth remains overwhelmingly dominant. This simplistic perception that the gods know best implies that the rudimentary causes by man which contribute to global warming and reinforce climate change such as the burning of vegetation, overgrazing, the search for fuel wood and the cultivation of marginal lands may not even constitute part of their mitigation agenda.

THE GOOD LIFE CULTURE

Perhaps one outstanding problem today should be our definition of what constitutes "the good life." This concept should, indeed, be revisited because humans turn to live in an illusion or culture of plenty. Almost invariably, what we view as a good life is essentially a life of high consumerism which is essentially unbearable for environmental sustainability. The high degree of consumerism has been achieved all in the name of a high social status. The misconception that belonging to a high social bracket means owning fleets of cars, houses, buying more and more clothing for our wardrobes. This consumerism pattern drives the industrialists crazy as they, on a daily basis strive to make more profits thereby giving room for more emission of greenhouse gases, and the exploitation of

our natural resources. This good life culture or perception that dominates our thinking today needs to be revisited as the perpetuation of this awkward philosophy remains a strong panacea for climate change reinforcement.

CULTURE AND POLICY PERSPECTIVES

From a policy perspective, cultural diversity which is associated with specific cultural uniqueness could serve as a major asset or hindrance in policy formulation. Problems could arise in situations where a single policy framework takes care of some cultural peculiarities and promotes them for better mitigation and adaptation outcomes. Indeed, the policies enacted for climate change mitigation to socio-economic activities as communities strive for sustainable development can only be better handled by the aspect of culture particularly in areas of little cultural diversity. As the impacts of climate change affect individuals and communities, mitigation policies can also meet resistance from some institutional, cultural, and from individual influences which determine the patterns and the amounts of consumption, the impacts of climate change on individuals and societies, adaptation processes, and management attempts.

Climate change in Cameroon is threatening socio-cultural systems and it only requires sound policies to prepare Cameroon's socio-cultural systems for a more resilient societal development. With the climate change problem in mind, sound policy options would be essential in harnessing the natural resources for better outcomes in order to meet the needs of the nation and the wider community. There is little doubt that climate change now threatens human culture and heritage, but society can contribute to climate change solutions. Choices must be made which ensure that future activities are consistent with and supportive of the sustainable use of both cultural and biological diversity. As many indigenous and traditional people depend directly upon nature and natural resources, they have to adapt to climate change variations. Thus, safeguarding certain cultural practices is an important part of that solution and it offers environmental, economic and socio-cultural benefits (Techera, 2010).

CONCLUSION

In order to ensure a sustainable agricultural occupation in the dry north region of Cameroon, the need for the construction of more dams and dikes and other associated irrigation devices would be required. However, given the enormous construction costs of such engineering structures that would provide a partial

solution to the water problems arising from the global warming phenomenon, government funding for such development projects would be most essential. Without such high cost inputs from the state, climate variability or climate change could certainly leave a negative impact or legacy on the agricultural landscape of the Sahelian northern region of Cameroon.

REFERENCES

American Psychological Association, APA (2009): Psychology & Global Climate Change: Addressing a Multifaceted Phenomenon and Set of Challenges. A Report of the American Psychological Association

Boutrais, J. (1973); Une consequence de la secheresse. Les migrations d'leveurs vers les plateaux Camerounais. Droughts in Africa 2, African Environment, Special Report 6

Duncan, E. Getting Warmer. The Economist, 5 December 2009, 2

Earthwatch Educational Resources (2010): Climate Change: Section 3, Climate Change: The Social and Economic Impacts. www.earthwatch.org.

Graves, Lidstone & Naish (1988): People and Environment: A World Perspective, Heinemann Educational Book Ltd, London, P84.

Lambi, C.M. (2009): A Global Perspective of the African and Cameroonian Economy. In Lambi (Editor), Cameroon: A Country at Crisis Crossroads,

An Athology in the Social Sciences, NAB VENTURES Bamenda, Cameroon. P11 -32

Lambi C.M (2010): The Environment and Development Frontier in Sub-Saharan Africa: Some Global Lessons. NAB VENTURES, Agwecam Printers, Bamenda, Cameroon.

Ndenecho, E.N. & Lambi, C.M. (2010): Cameroons Arid Lands in Transition: A Case Study of a Fragile Environment at the Ante-room of Desertification, Journal of Applied Social Sciences, Vol. 9, No. 1, pp 6 - 22.

Oneko, J. (2012): Hunger in the Horn of East Africa, Development and Cooperation, Vol. 39, No. 3, pp. 110-111.

Susan A. Crate and Mark Nuttall (Eds), Anthropology and Climate Change: From Encounters to Actions, Left Coast Press, 2009, p.12.

Techera, E. J (2010): Cultural and spiritual impacts of climate change. <http://www.inter-disciplinary.net/wp-content/uploads/2010/06/Techera-paper.pdf>

Yahmed, D.B (2000): ATLAS OF AFRICA. First Edition, Belgium.

Received: 23/05/13

Accepted: 15/07/13