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On the place of climate in the process of development and according to observations made in two boundaries provinces in Cameroon

Dr. Mengue Mbom Alex
University of Yaounde I, Higher Teachers' Training College
PO Box 47 Yaounde (Cameroon)

Phone: +237 761 20 65 or + 237 959 10 86
Email. almengue@yahoo.fr

Abstract:

This paper tries to show in a convincing way the existingrelationship between climate as factor and the process of development. The space on which our observations are based offers very favourable climatic conditions but a low level of development compare to its real potentialities. The essential part of the economic activity in certain localities in South - west province is observed in dry season which only lasts three to four months. This situation obliges a great part of the working population to migrate to find employments elsewhere. The forsaken localities are marginalized more and fall into ruin.

Thanks to the analysis of the available data on our studied zone and thanks to remote sensing, the link which exists between climate and the process of development is clearly established. The role of the climate is dual. We think that the climate is a factor of enhancement. Its real influence depends on the total context in which it acts. This influence can be positive and in this case the climate becomes an element which supports the development.

On the other hand where political, technological, social choices do not totally cop with the global context, including natural environment, the effects of the climate can be devastators; it thus deviate an agent of destruction and a factor of under development and poverty.

Key words : Cameroon, Climate, economy, impact, mobility.

Introduction: an overview of Cameroon:

Our main objective is to specify the role of the climate in the development process. In fact observations done in different countries and regions of the world are proving that bad climatic conditions do not favor development. What many persons are unaware is that the better climatic conditions also can be factors for under development. We are now going to examine the case of the southwest and northwest provinces in Cameroon to prove it. These provinces are limited to the west by Nigeria and the atlantic ocean and to the east by three other provinces: Littoral, Western province and the Adamaoua.

Cameroon lies in the heart of Africa, precisely on the boundary between west and central Africa. This territory is triangular in shape, stretching about 1200 km to the north 800 km wide from a base. It covers an area of 475 000 Km2.

Thanks to it geographical location, Cameroon is experiencing the whole range of inter-tropical zone climates. The three main climatic regions are: the southern equatorial region, the Sudanese region and the sudano – sahelian region.

Generally climate refers to the average atmospheric conditions of a place or an area over a chosen time. It includes components such as latitude extent, rainfall, temperature, winds, clouds, sunshine etc.

In Cameroon, the following factors are partly responsible for the variety and the originality of the climate:

Rainfall: which is higher on the coast than Inland, and in the south more than in the north, and which increases with altitude.

Temperature: It is higher in north than in south.

Air masses: These are south –east monsoon trade winds (wet), and the north-east “harmattan” trade winds (dry).

The study area combines the South West and the North West provinces of Cameroon. It is crossed from south to north by the geological fault on which the continents of South American and Africa separated million years ago. Several volcanic mountains were formed along this fault, among which the mount Cameroon: the highest Mountain in west Africa (4095 m). It is then characterized by high and low lands.

This space is under the influence of the equatorial monsoon climate, with a nine if not a ten – month long rainy season (from March to November. The maximum rainfall occurs in July or August). The so call dry season is very short (from December to February), but very important economically.

Two subtypes can be distinguished: a coastal variant and a subtropical mountain variant.

The coastal or seaboard variant is found over all the low – lying maritime plains. The main feature is the very high rainfall (between 2000 and 15000mm per annum) and an average temperature of 22 °c. Cape Debunscha for example, near Limbe town, offers the heaviest rainfall in Africa. This precipitation brings along cloudiness, and constant humidity (a mean of more than 85%).

On the western and north western highlands, the subtropical mountain variant is observed. Here temperatures drop to a mean of 19°c and relative humidity varies between 40 and 70%.

This general heavy rainfall sustains a green forest in southwest province; and gives way to vast grassland in west and northwest provinces.

The soils are predominantly ferriferous, volcanic and alluvial.

Presentation of cases showing links between climate and Economic activity

In southwest province as well as in northwest, the main stay of the economy, with about 75 % of the total active population involved, is agriculture. Nevertheless, in order to keep live going, other forms of economic activities are observed: rearing, hunting, small scale business, petty trading.

The exercise of these activities is gender related and varies in time (MBAH S.A., 2000). Crops are cultivated both for consumption and for commercialisation. Cash crop production such as coffee, cocoa, rubber, banana, oil palm, is mostly practiced by men. In contrary, food crops such as cassava, yam, maize, groundnut, including other vegetables are sowed, weeded, harvested, stored, preserved, processed, transported and marketed by women. Women also assist their husbands and the rest of the people involved in cash crops related activities. They play a very important role in the development process because they are always involved in the production or commercialisation of many economic activities in our study area.

Positive influences of Climate in local economy:

The climatic elements such as rainfall, temperature and wind have an impact on the economic development of the study area.

Here the generally hot and humid climate is conducive for the growth of some cash and food crops.

The rainy season is meant for planting and weeding, while the dry season is a period for harvesting and trading. For such a logic, Clearing takes place during the dry months (December and January), followed by cultivation with the beginning of the first rains.

The rainy season brings also floods and alluvial soils when the rivers and streams overflow their banks. These soils are fertile and mostly cultivated in the dry season.

Small scale business activities are more favourable and profitable during the dry season because of the bad state of road network. The existing earth roads are very seasonal and pliable only during the dry season.

The agricultural practices have resulted to different types of environmental degradation. Soil erosion has been caused by both physical and anthrop genetic factors: the main physical factors are wind, precipitation and topography, while the human factors include clearing, over grazing and over cropping.

Negative influences of Climatic in local economy:

In their every day life, farmers are conditioned to adapt their activities to seasons. But many irregularities have been noted over the years, where the rainfall starts earlier than expected after a dry season or prolongs into the period expected to be dry season. Such situations led to consequences which discourage the farmers.

Impact on economic activity

Duration

When the rainfall starts earlier than expected after the dry season, farmers are sometimes obliged to plant earlier. Such situation can lead to the drying up of many crops.

Prolonged rainy season can also affects the quality of the crops. This is caused by too much cold that retards the ripening of some crops, but also results to their rotting up. As such, most farmers complain that the quality of their cocoa or coffee is low due to excessive rainfall. In addition, it always distorts the general implementation process of the farming calendar, be it cash or food crops (Alungekane E.N., 2001).

Intensity

High day temperature of about 28 °c, coupled with the very dry wind that blows across the studied area during the dry season sap the energy of the people and then impose the need to rest. That is why many farmers are obliged to ground their activities during the dry season, from 11 h to 2 pm, and wait for the sun to subside. This affects their activities. As a result farms remain small and less productive.

The removal or burning of the roots of plants by farmers for easy cultivation makes the soil particles very loose. Moreso, the direct sun light heats this soil, rendering it dry, looser and lighter. Consequently, it becomes more easily carried away by the wind or by the water (wind and water are then agents for erosion). In this area, violent winds use to destroy also houses and break down crops. This often leads to shortages during harvest and post harvest periods.

The climate also favours the prolific reproduction and spread of harmful animals and insects which affect agricultural productivity. For example: grasshoppers, capsids, mosquitoes, monkeys and rodents such as rat moles and squirrels.

Impact on Trading and moving

Due to the hilly nature of the study area, road construction is not easy and even when the roads are constructed; they suffer from serious erosion in the rainy season. This is because the roads pass on hilly slopes and the hills are good surfaces for erosion. This causes the development of rills, gullies and landslides.

In this area transport modes vary from human porterage which is the prevailing mode in the area to, hand – pushed trucks, vehicles and planes. Roads, river or inland waterways and airways are used. Each of these modes has its operational characteristics and developmental problems (Arrey T.S., 1999).

The generally bad state of roads for example can be attributed to different physical and human factors (Azamah V.M.M., 1999): climate and topography and soils of this area, the presence of a thick ever green equatorial forest, inadequate and untimely maintenance, lack of community dynamism, insufficient financing.

In the heart of the rainy season (August – September), when most harvesting of farm products is carried out, excessive rains cause evacuation problems by rendering the already poor road network more deplorable. During this period, transporting products from the farms to homes and from homes to markets is very difficult.

Thus, food crops remain in abundance at the farms, while there is scarcity in homes and markets. In fact parts of the studied zone are only accessible by footpath because the vehicles used for transportation are scarce. Thus, the few available are rather too expensive to hire by individual farmers, businessmen or rearers. The Transporters even segregate between the passengers they carry. They prefer male passengers who will push their vehicles whenever they get stuck in mud. Sometimes they pass the night on the road if the vehicle is hooked up in mud. This slows down considerably the economic activity which is then at a stand-still.

More over, during the rainy season, transportation between Cameroon and Nigeria is very much facilitated by the River Manyu (Tabot E.A., 1999). This is because the river is quite navigable during this season. Unfortunately this increases uncontrolled trade between the two neighbouring countries.

Rural exodus as ultimate solution and general consequence:

The ultimate solution found by the youth to the climatic problems is migration to towns. This active population group which should promote local development is moving out, thus abandoning the task to old people, wives and children.

The way population in the south west and north west provinces behave cops with a general logic that one can observe in Africa and about which have already mentioned (Mengue, 1995 and 1997, p.29). To solve a problem, the conceivable solutions are first sought locally. Migrations, which are very often temporary, are only accepted if local solutions failed, or when different kinds of pressures (political, socioeconomic and cultural) become very constraining. The individuals that migrated return very often in their local area when the problems that justified their diparture are solved.

Conclusion and discussion

Thanks to the analysis of the available data on our studied area and thanks to remote sensing, the link which exists between climate and the process of development is clearly established. The role of the climate is dual.

We think that the climate is a factor of accompaniment. Its real influence depends on the total context in which it acts. This influence can be positive and in this case the climate becomes an element which supports the development.

On the other hand where political, technological, social choices do not totally cop with the global context, including natural environment, the effects of the climate can be devastators; it thus deviate an agent of destruction and a factor of under development and poverty.

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