



**INTERNATIONAL MASTER'S PROGRAMME IN ENVIRONMENTAL
SCIENCE (LUMES)**

September 26th 2003

**Combating food insecurity in Northern Cameroon: Challenges and
Opportunities**

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M.Sc. Thesis

ACKNOWLEDGMENTS

My sincere gratitude goes to my supervisor, Alia Ahmad for guiding me throughout the writing of this thesis despite her other commitments. More appreciations go to Bodil Elmqvist for her generous and useful comments. Thanks a lot because despite your tight schedule you still managed to squeeze some time out and read through this work.

I am particularly indebted to the entire LUMES staff and administration. The staff for the new knowledge I have acquired and the administration for granting me financial assistance to travel to Cameroon and collect data for the write up of this work. I do appreciate your immense contribution

My heart felt gratitude goes to my brother, prof. Humphrey Abeh for making it possible for me to go through this course both financially and morally. Special thanks also go to my entire family, especially, Mr./Mrs. Robert Abeh, Phebe Abeh and Acho Abeh for their support. My love also goes to my cousin in London, Miss Anne Mah and kids for the love they showed to me during my stay with them. The same goes to Mr./Mrs. Victor Nkweti of London.

Additional thanks go to all the respondents of the North province who furnished me with the necessary information for the write up of this thesis. Mr Blomene(MINEDUC), Mr.Ousman Karim (WFP), Mr.Lazare (Office cerealier) and Mr. Rou Mathieu (MINEPAT).

Many thanks go to the staff and administration of ODECO-Cameroun, particularly the Director, Mrs. Sylvie Christel Mbog and the Director of programmes, Mr.Jonas Mva for permitting me to use their premises and resources during my stay in Cameroon, and for facilitating my data collection process.

To my LUMES mates, I say thanks a lot for making my stay in Sweden less boring.

I am very much grateful to my friends for their different contributions throughout my study period, Nji Stephen, Tamu Veronica, Demgne Honorie and Nyambi Beltus.

I give glory and honour to the Almighty God for granting me wisdom, courage and protection throughout my life.

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Abbreviations

- MINAGRI: Ministry of Agriculture
- MINEPAT. Ministry of the Economy and Territorial Planning
- MINEFI: Ministry of the Economy and Finance
- MINAS: Ministry of Social Affairs
- MINEDUC: Ministry of National Education
- MINTP: Ministry of Transport
- IFPRI: International Food and Policy Research Institute
- FAO: Food and Agricultural Organization
- UNDP: United Nations Development Programme
- WFP: World Food Programme
- WFS: World Food Summit
- SSC: Sub Saharan Countries
- WDR: World Development Report
- USAID: United States Agency for International Development
- PSSA: Special Programme for the fight against Food Insecurity
- FEWS: Famine Early Warning Systems
- ODECO: Organisme de Développement, de Formation d'Etudes et de Conseils

ABSTRACT

Up to date, many still question the occurrence of food insecurity in Cameroon. This paper discusses the causes and consequences of food insecurity in Northern Cameroon, specifically in the North and Extreme North provinces. Results from the study-conducted show that food insecurity in this region is caused by natural, economic and socio-cultural factors. These factors are so interlinked and mutually reinforce each other that resolving one does not revert the problem, thus the need for a multidisciplinary approach that will take into consideration all the causal factors. The study also reveals that food insecurity has caused several adverse environmental impacts in the region. Individuals and households have developed differing coping strategies, which range from the collection of Non-timber forest products, stealing, begging migration to other places in search for jobs and borrowing of foodstuff from households with surpluses. Despite these coping strategies, the situation has remained almost unchanged for decades. The analysis suggests that combating economic, socio-cultural and political factors is paramount in enhancing a sustainable food security in the region. Besides, this has to be accompanied by a better policy formulation that will allow for transparency and accountability in the planning and implementation processes.

Keywords: Food insecurity, Causes, Consequences, coping strategies

CHAPTER 1: INTRODUCTION

I.1. Study Area

In 2001, the total population of Cameroon was estimated at 15 731 000 inhabitants. Current annual population growth rate stands at 2.6%. The total surface area is 475 650km². There is a high diversity of cultures with English and French spoken as the official languages and about 250 tribal languages. The South and the North of Cameroon show remarkable differences in terms of culture and dietary intake. In the North, about 75% of the dietary intake consists of cereals while in the South; the diet mainly consists of tubers, vegetables and some cereals, especially rice and maize. For several decades now, agriculture has been a very important sector that has always contributed significantly to the national economy. In 1999, it contributed 42.4% of the national GDP. About 61% of the total population is agriculturist. In 2001, the national poverty rate was 40.2% compared to 50.5% in 1996 (MINEFI, 2002). Statistics show that, the North province with headquarters in Garoua and the Extreme north with headquarters in Maroua (see fig.1 below) are the most populated and most poor with high illiteracy and infant mortality rates -135 per 1000 and 85 per 1000 in the Extreme North Province (ENP) and North Province (NP) respectively (MINEPAT, 2001).

Fig.1: Map of Cameroon



The NP has an estimated population of 2,139,000 inhabitants with an annual growth rate of 5.8%. About 67% of this population is rural with a density of 65-persons/km². Women represent 51.14% while men represent 48.86% of the total population. It has a surface area of 66 333km², representing approximately 14.12% of the total national surface area. Its vegetation varies from sudano-guinean in the south to sudano-sahelian and sparsely distributed steppes in the north of the province. Average temperatures range between 18°C-45°C while annual precipitation levels range between 500-1250mm (MINAGRI, 2001 and MINEPAT-2002).

The ENP is the most poor and most populated with a population of about 3,426,200 persons, representing about 18% of the total national population. It has a dominant rural population with an urban population of approximately 19%. It has a density of 74 persons/km². Its surface area is approximately 342,620 km²-equivalent to 7.2% of the total national surface area. Its vegetation is dominantly sudano-sahelian. Annual rainfall levels range between 435-810mm and temperatures can be as high as 45°C during the months of February, March and April (MINEPAT/ UNDP, 2000 and WFP, 2002).

The table below shows the poverty indices of the ten provinces of Cameroon. The table shows higher rates for the ENP and NP, that is, 49 % and 44% respectively as compared to the other provinces.

Table I: Poverty index of the different provinces in Cameroon

Province	Poverty index of urban population (%)	Poverty index of rural population (%)	Poverty index of total population (%)
Extreme north	35	53	49
North	28	49	44
Adamaoua	26	43	37
East	21	33	30
Center	11	21	16
South	12	20	18
South - west	13	24	21
North - West	16	29	26
West	14	24	21
Littoral	11	21	13
Total	16	35	28

Source: MINAGRI/WFP: Analysis of the food security and vulnerability situation in Cameroon, 2001.

The principal occupations of the inhabitants of this region include agriculture, livestock rearing and commerce. About 70% of the inhabitants is agriculturist but much of the agriculture is for subsistence with little or no surplus for marketing. The most cultivated cereals include Sorghum (red and white species), millet, maize, and rice; cotton is the main cash crop cultivated. The staple cereals are sorghum, millet and maize. Rice is produced on a large scale, especially in the ENP but very little of it is consumed due to the dietary habits of the inhabitants. There are seasonal streams called “mayos”.

1.2. Background

Most African countries are plagued by food insecurity; with the most affected countries being those in the Sahel region. This region is known to be ecologically fragile due to the high level of natural resource degradation and the vulnerability of its population. Cameroon being a country in the Sahel is not exempted from this problem. Many may deny the fact that food insecurity in Cameroon is problematic because it is not often considered as one of the hunger “hotspots” in the region such as Chad, Niger, Sudan and others (USAID, 2003). Nevertheless, the problem of food insecurity in Cameroon is real and it is more noticeable and frequent in the Northern and East provinces of the country. The fact that national food availability is ensured does not guarantee equal regional availability and distribution of the food at the household and individual levels. As such, Cameroon cannot be said to be food secured because not all its households and individuals have constant access and the means to afford for food. In fact, food is the principal basic need to all humans. The lack of food or insufficient food intake can impart enormous consequences to individuals such as low faculty development, low productivity, poor health, morbidity and eventually mortality in both children and adults.

The genesis of food insecurity in Northern Cameroon was in 1968/69 agricultural years when there was great shortage in cereal output. The situation further intensified in 1973/74, the period of the Sahel drought crises. At the end of the Sahel crisis, the affected countries formed an association known as the “Permanent Inter-state committee for Drought Control in the Sahel”(CILSS). This association evaluated the situation in Cameroon and realized that the problem was less serious because it occurred only in two provinces as compared to other countries, which were affected almost entirely. So it was decided that food should be transferred from the south where there is abundance to the North, which is deficient, thus Cameroon was not admitted to the Association. The strategy adopted by the government at that time was to relocate some inhabitants from the ENP to the NP that had more fertile soils and a low-density rate. Today, this has resulted to an increase in the population of the NP causing a higher carrying capacity of the land. Since then, frequent conflicts have occurred between the indigenes and immigrants who are often denied access to fertile land and other opportunities within the society. As of now, national under nutrition rate is estimated to be between 20-34%. This rate is much higher in the Northern region where cereals constitute about 75% of the diet all year round. According to the FAO, a high intake of cereals, tubers and roots indicates “a relatively poor diet in terms of diversity”. Therefore, there is a high probability that people who rely much on such diets are undernourished and are most likely to be deficient in most micro and macro-nutrients that are essential for good health.

The question many pose today is why food insecurity in the North and Extreme north provinces is still a big issue despite the fact that about 61% of the entire Cameroonian population practice agriculture. (FAO, 2001, Office Cerealier, 2003 and MINEPAT/UNDP, 2000).

1.3. Objective of study

The main objective of this thesis is to identify the major causes and consequences of food insecurity in Northern Cameroon and to come up with some recommendations on policy measures that could be put in place to enhance a sustainable food security in the region. The study equally seeks to demonstrate that better policy formulation and implementation is crucial in enhancing food security.

To achieve these objectives, the following questions will be answered;

1. What are the factors responsible for food insecurity in this region, their consequences and the coping strategies developed by the people?
2. What has been and is being done to mitigate the problem, i.e., which projects or programmes have been implemented and what is their focus?
3. Is it possible to achieve sustainable development under such circumstances where people are striving to meet up with their basic needs?
4. What future strategies should be considered in redressing the problem?

1.4. Hypotheses

1. Socio-cultural and economic factors are paramount in averting food insecurity in the region as compared to natural factors.
2. Food insecurity is persistent in the NP and ENP because strategies formulated to resolve the problem have not been effectively targeted and implemented.
3. Poverty is the major cause of food insecurity and underdevelopment in Northern Cameroon, thus reducing poverty will enhance food security and promote development.
4. Food insecurity and poverty are the main causes of environmental degradation leading to changes in vegetation cover over the years.

1.5. Rationale

Food insecurity crises have been quite recurrent in Northern Cameroon for decades yet; no concrete measures have been taken to redress the problem. Partly because less research has been conducted to get a better insight of the problem. Besides, much research in the past was limited to the climatic (natural) conditions prevailing in the region. However, to better understand and redress the issue, consideration has to be made of all the forces involved-social, economic, cultural and natural. Therefore, understanding the interactions that exist between these forces that cause food insecurity and household coping strategies may help policymaking. Thus this document will act as a push to the

government, the general public, donor organizations and other interested parties in the domain to intervene in one way or the other in seeking appropriate solutions to the problem.

1.6. Scope and Limitations

The discussion of this thesis is limited to an analysis of the various factors responsible for food insecurity in the NP and ENP of Cameroon and their consequences, with the most important being, natural, economic and socio-cultural factors. It focuses more on the interaction between these factors. Nonetheless, the aim is to portray the fact that food insecurity can only be combated using a multidisciplinary approach because it involves the interplay of economic, socio-cultural and natural factors, which are rather inseparable. Thus, targeting one of the factors does not guarantee or enhance a sustainable food security. There are some limitations with regards to the methodology used. For example statistics were collected from different ministerial departments and in some cases, these statistics differed because of the absence of a good database. Other departments could not provide statistics needed for the same reason.

CHAPTER II: METHODOLOGY

2.1. Materials

The tools employed in the write up of this work include field survey and interviews. Both primary and secondary data have been used. Primary data was collected through interpersonal communication with authorities from the government, NGOs and international organizations such as the world Food Programme (WFP), which works to enhance sustainable food security in Northern Cameroon. Secondary data was collected from ministries and ministerial departments working in the same light. Apart from these two sources, more information was gotten from reports, books and articles in libraries and on the web. Further information comes from the personal experience and field observations of the author after being involved in some development studies that were conducted in this region in the past. Part of the results on household survey studies conducted by ODECO-Cameroun for WFP-Cameroon is used in this study. This is especially the case with the coping strategies adopted by households. Another important tool employed is that of systems thinking. In this method, a causal loop diagram of the various factors related to food insecurity is created to show the interactions between them. A case study carried out in the NP is used to better assess and analyse the situation. The results of this case study are presented in chapter four.

2.2. Methodology

The target respondent group was the heads of ministerial departments, and organizations that are working in the domain of food insecurity. These include, the Ministry of Agriculture (MINAGRI), Ministry of Social Affairs (MINAS), Ministry of Transport (MINTP), Ministry of National Education (MINEDUC), Ministry of the Economy and Territorial Planning (MINEPAT), the *office cerealier* (cereal office), and WFP. The choice of this category of respondent was based on the fact that they work closely in collaboration with the local communities concerned, as such they have a good knowledge of the problem and pleas of the victims. Thus they were better placed in responding to the questions posed. There are quite a great number of other ministerial departments and organizations that would have been contacted but it was not possible due to time and other constraints. In some cases, the persons responsible were not available at the time of the study. A similar study could not equally be carried out in the ENP because the high social unrest in the region could not permit this writer to travel there. During the study, a questionnaire was designed to suit the different data required for the study. The content of the questionnaire was explained to the respondents who later on filled it. In all, twelve authorities responded. It is worth mentioning that the information collected was not limited to the questions posed in the questionnaire. Interviews were equally conducted on other aspects, which were deemed necessary for the study. The analysis done in this paper is based on the results obtained from the questionnaires and from the interviews. However, some secondary data is used to complement, compare and contrast some views. All these departments provided general information related to food insecurity, however, specific information was

gotten as follows. MINAGRI was targeted to get information and statistics about agricultural production and capacity building programmes. Agricultural units like the PNVRA (National Agricultural Extension Programme), PSSA (Special Programme for the Fight Against Food Insecurity) also provided information on the current food security situation of the province. Information on the rate of education in the province was gotten from MINEDUC and MINEPAT. MINAS and MINEPAT provided information on social issues, MINTP provided information on infrastructure while WFP provided information on relief work.

The main tool for the analysis is the livelihoods approach which is a method of thinking that incorporates the identification of the causes and effects on the vulnerable –in this case food insecurity. This approach provides a guide to the development of strategies that could improve the situation. The data was analysed using the SPSS tool and excel spreadsheets. The results are spread using charts and tables.

2.3. Critique to methodology

Different people, depending on their socio- cultural, economic, and political status perceive the concept and definition of food insecurity from different angles. The World Bank definition emphasizes on constant access to enough food by all for an active and healthy life. Meanwhile from the interviews conducted, some people view food insecurity as poverty; others feel that it is the lack of cattle, land and the denial to freedom of expression. Nevertheless, all these boil down to increased well being because if people have enough assets (human, social, natural and man-made), they are better equipped to combat food insecurity, overcome poverty and improve on their well being. The fact that food insecurity in this region affects mostly the rural implies that their perception would differ greatly from that of the urban dwellers. It does not exclude the fact that urban households experience food insecurity as well. In fact some of them are worse off when compared to rural dwellers. Likewise, some of the respondents in this study occasionally experience food shortages because they earn low income that is insufficient to meet up with their family commitments. Apparently, the results of this study would have differed to an extent and in some aspects if it were equally conducted at the household levels in both milieus. Furthermore, it would have been much better if the study were conducted in both provinces to better depict and bring out the differences in the severity of the problem because it is obvious that both are not affected to the same extent. Information for both provinces is necessary because it will better orientate any interested persons or organizations that are willing to intervene in redressing the problem. Although, the alarm has been raised, there is need for an in-depth study in the future.

CHAPTER III. THEORETICAL FRAMEWORK

3.1. Definition of food security

Many definitions of food security have been developed. However, there are some, which have been widely used than others. This is the case with that developed by the World Bank in 1986. Base on this definition, food security implies “access by all people at all times to enough food for an active, healthy life”(World Bank, 1986 as in Salih, 1995). From the nutrition point of view, Salih, 1986, defines the food security of a country, region or household as its ability to meet up with its “target consumption levels on a yearly basis”.

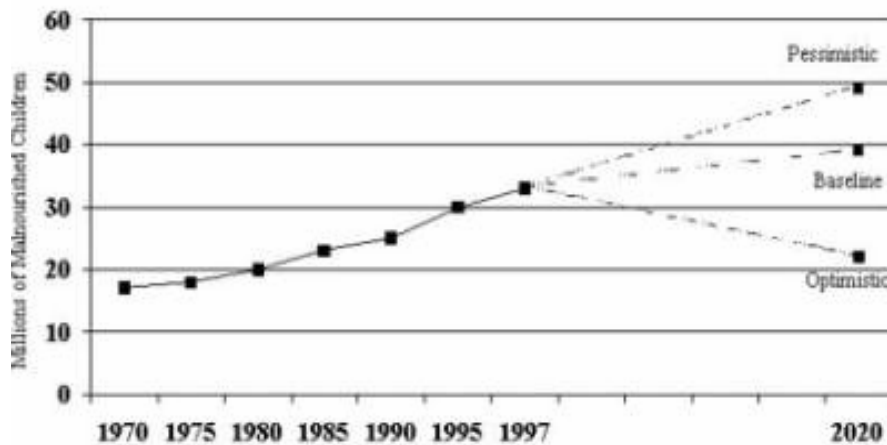
Food insecurity can either be chronic or acute (transitory). According to Salih, 1995, “transitory food insecurity is a temporary decline or shortage” in the food needs of a country, regions or households. The declines may be due to fluctuations in the production of food, changes in incomes and food prices. On the other hand, chronic food insecurity occurs when there is persistence in food declines. Thus food insecurity can be defined as a situation in which households and individuals are neither able to access nor afford for food for an active and healthy life. Despite the diversity in these definitions, most of them evolve around some common themes, which are very important in the measurement and analysis of food insecurity. These themes include availability and accessibility and affordability, otherwise known as the forces of demand and supply or the entitlements at the disposal of individuals and households to produce or command food (Dreze and Sen, 1989). Food security can either be ensured through production, purchase, and public food distribution from food aid. However, for individuals to have access to this food, they must have the opportunities of either producing the food or purchasing it in the case where they cannot produce. This is why food insecurity does not apply only to food insufficiency and availability but also to accessibility and affordability of the food by the needy.

3.2. Concept of food insecurity

In 1974, the Food and Agricultural Organization (FAO) of the United Nations held the First World Conference on food security. During this conference it was agreed that everyone has the “inalienable right to be free from hunger and malnutrition for the development of their physical and mental faculties”. In 1996, another World Food Summit (WFS) of heads of states of FAO member countries was convened in Rome-Italy. The driving forces behind the convening of this conference were, first, to reaffirm their stand on the fact that each citizen has the “inalienable right to be free from hunger and malnutrition” and achieve food security for all. Second, by the fact that the number of hungry and undernourished people across the globe kept on increasing despite the commitments taken by the various heads of states to achieve food security for all (FAO, 1996). The main outcome of this summit was the adoption of the Rome Declaration on World Food Security and the World Food

Summit Plan of Action. The prime objective of this plan was to reduce the number of hungry and undernourished people in the world from 800M to 400M by the year 2015. For the past years, food insecurity has caused high morbidity and mortality of children as well as adults. The current figure for undernourished and hungry people in the world stands at 800M. There are positive steps being taken in some countries with regards to the implementation of this plan of action such as in Asia and Latin America. On the contrary, in Africa, especially Sub-Saharan Africa, the situation seems to be aggravating. FAO estimates predict that if no progress is made, about 680 M people will still remain hungry by the year 2010, with more than 250M of them being in Sub-Saharan Africa. (FAO, 1996 and IFPRI, 2001).

Fig. II: Malnourished children in Sub-Saharan Africa: Alternative scenarios



Source: IFPRI, 1997.

The Sahel region is one of the hunger hotspot in Sub-Saharan Africa. The peak of food insecurity in this region occurred in 1973/74 (Sen, 1981). Empirical evidence has shown that by the year 2020, food insecurity will reduce in all developing countries except for Sub-Saharan Africa. Although total cereal production will increase in SSA, demand will exceed supply in the future as a result of the predicted increases in population within the region (IFPRI, 2002). Other reasons for this decline could be attributed to the socio-economic, cultural and natural conditions prevailing in the region. In addition, policies that govern food production are not being rightly implemented, evaluated and monitored. From economic history, the late 1960s and 70s saw many African countries change their agricultural policies in favour of industrialization (Martinussen, 1999). In most of these countries, government agricultural policies, likewise most research centres tended to focus more on export crops rather than on food crops that are consumed locally (Club of Rome, 1989). This implies that less of their budgets are set aside for the promotion of agricultural development, despite its huge contributions to their national economies. The consequence is that agricultural production; particularly food crop production has been on the decline since the 1970s. Furthermore, these countries have adopted external policies and technologies, which have not been suitable to their own situations. The most prominent being the Green Revolution that could not

succeed in Africa as it did in South Asia because of the lack of proper institutions and infrastructure. The outcome of its failure was the liberalization of the agricultural sector thereby abolishing the provision of chemical inputs, subsidies and financial assistance to farmers (IFPRI, 2001). In 1972, the Cameroon government promoted the production of export cash crops such as cocoa, coffee, rubber and cotton. The driving force was the high prices of these commodities on the international market. Similarly, farm inputs were heavily subsidized at the reach of each farmer. This motivated most of them to grow these cash crops as they earn quite huge sums of money from it. However, when the prices of these crops fell drastically in the mid 1980s, coupled with the Structural Adjustment Programme (SAP) of the IMF and WB, the government uplifted subsidies (Africa environment outlook, 2002). Conversely, today, the European and American agricultural systems remain heavily subsidized because their governments recognise the importance of Agriculture in the economy.

Sen, 1989, argues that the *raison d’être* for the increased number of undernourished and hungry people in the Sahel region is due to the fact that agricultural production does not only serve as a source of food supply to individuals and households but also as a source of income and livelihood to a majority of the population (Sen, 1989). This argument portrays the great role of the economy in enhancing food security. This author further uses this argument to bring out the differences that have occurred between some Sub-Saharan Countries (SSC) and developed countries, which have equally experienced famines in the 1970s. These are the cases of Sudan and Ethiopia (SSC) with Portugal, Hong Kong, and Venezuela (developed economies). According to Sen, the countries with developed economies experienced famines or shortage of food output per head but without any problems, unlike in the SSC. The reason being that, food production is not a major source of income or entitlement in these countries as it is in the SSC. Thus the problem of food insecurity in Africa is highly correlated to its economic malaise (Salih, 1995). The fact that a high percentage of the population depend on agriculture for their livelihoods implies that much of their income comes from the sale of agricultural products. Consequently, if production is low, then they will be obliged to consume the food rather than sell to earn income. This limits their purchasing power to a greater extent during periods of crop failure and consequently their food security.

There is a great link between poverty and food insecurity. According to IFAD (International Fund for Agricultural Development), “poverty is the root cause of food insecurity”, especially at the household level (IFAD, 2001). Thus, poverty in general and income poverty in particular is seen as a major barrier to the enhancement of food security in most African countries. This explains the reason why even when there is much food available on the markets; most people still experience hunger because they lack the financial capabilities to afford for it. In fact poverty and food insecurity reinforce each other thereby creating a “vicious circle”. Environmental degradation and natural resource depletion are directly linked to poverty and high populations. Many have argued that activities of the poor pose insignificant impacts to the environment while others believe

that the poor are the main brain behind environmental degradation in most African countries because they rely on the environment for most of their resources. On the other hand, the poor suffer most from any crisis because they have got less coping strategies to deal with them (Global environment outlook 3,2002). There is a general agreement among environmental experts and social science scholars that social configurations influence land use (Hecht and Cockburn, 1989), thus the relation between social structure and ecological processes is key to understanding the degradation of natural resources. Clover, 2003 argues that Africa is endowed with many resources that are capable of meeting the needs of its citizens. Population pressure might be an aggravating factor to hunger but not the actual cause. She further alludes that, most countries that suffer from hunger in Africa grow food in abundant quantities and tend to export it to other countries that are not in dire need. According to her the problem of food insecurity remains topical today because in the 1970s and 80s, purely technological measures were used to resolve it, and the main focus was on food production rather than on equal food distribution. On the other hand, as population increases, available land for production reduces, because the land is needed for other purposes such as the construction of hospitals, roads and settlements to meet up with the demands of the growing population. Meanwhile due to the absence of improved technology in agriculture, the output per unit of land as well as per capita consumption will reduce; therefore more land will be needed for agriculture (Salih, 1995). Both natural and human activities, especially those that lead to the removal of vegetation cover have led to considerable climate change in the Central African region. Another consequence is the great losses in biological diversity. Human activities include commercial logging, cutting of trees for household fuel wood, overgrazing and clearance in search for more fertile soils for agricultural purposes. Although the contributions made to climate change by African countries is insignificant compared to other countries in the world, global impacts will trigger increased levels in rainfall, soil moisture and runoff in central Africa. Studies carried out by the Inter governmental Panel on Climate Change (IPCC) reveal that fresh water might decrease in the semi-arid regions of Cameroon due to decreased rainfall and high evaporation. Meanwhile “Sea level rise and increased vulnerability to inundation and storm surges will render some of the coastal areas of Central Africa uninhabitable, displace millions of people and threaten low-lying urban areas, such as Douala in Cameroon” (IPCC 1998, IPCC 2001 as in Africa Environment Outlook, 2002).

Since 1973, the Sahelian countries have been experiencing major changes in their climate, especially with regards to vegetation cover and rainfall-which are very crucial in determining agricultural output. Some of the most hit countries were Sudan, Niger, and Chad. Today; the situation seems to persist in some of these countries with little or no improvement. Cameroon being a country in Sub-Saharan Africa and in the Sahel belt in particular is also affected. Food insecurity in Cameroon is recurrent and most severe in the North and extreme north provinces, which are located South of the republic of Chad. These provinces, being neighbours to Chad also experienced the same conditions-especially during the peak of the Sahel crises of 1974. Today, the same

conditions still prevail in these two regions. These provinces are the poorest in the country in terms of natural and socio-economic opportunities. According to the WFP, food insecurity in this region is a cause of deteriorating climatic conditions (droughts, and floods), pests’ infestations, attacks by elephants, less available land for agriculture, low literacy rate of the inhabitants and a high demographic pressure (WFP-2001). Others have attributed it to the non-diversification of food crop production. The following natural disaster periods have been very significant in the region

- 1984/85-severe droughts occurred in the ENP causing 150 000 persons to be at a 100% risk of food insecurity
- 88/89-Huge floods in the NP and ENP resulted to crop and production losses
- 90/91-Severe droughts in the ENP caused food shortages worth 92 000T, affecting 700 000 persons
- 92/93-Elephants destroyed 5 000 ha of cultivated land in the ENP
- 93/94-destructive effects of elephants and droughts caused cereal shortages of about 188 000T
- 94/95-Destruction of crops in the NP and ENP by huge floods
- 94/95-Severe droughts caused a reduction in cereal output in both provinces
- 96/97-Severe droughts destroyed heavily sorghum production areas, causing great cereal losses.

However, very little has been documented with regards to the socio-cultural and economic factors associated with food insecurity in this region. These factors are very important in the analysis of the situation of food insecurity in the region.

3.3. Lessons from history

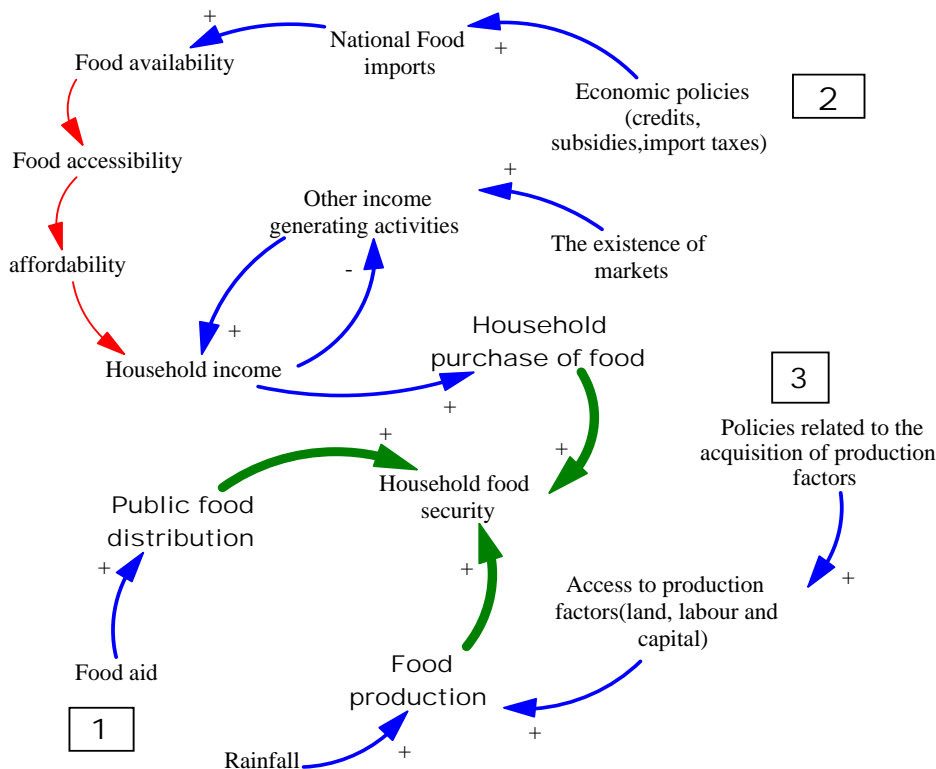
In the mid 1980s, most African countries were hit by unprecedented droughts that caused widespread famines. Some of them include Kenya, Zimbabwe, Tanzania and Botswana. Because the crises were spontaneous, timely intervention was difficult. More over, no response systems had been put in place prior to the occurrence of the crises. Thus the government had to take the responsibility to make sure that its citizens were liberated from hunger. Many initiatives to combat the crises were developed and both the victims and government authorities became actively involved. Strategies such as food for work programmes and food aid were initiated. In other cases like Kenya, community development groups to fight against food insecurity were set up. In fact there was some sort of decentralisation that eased the intervention process to counteract the problem. All these successes were due to government interventions that allowed for transparency and accountability throughout the intervention period. Although in both cases the successes were attributable to the political propaganda of the then presidents, it was worth it because morbidity and mortality rates were effectively reduced. Today, in post independent Tanzania, it is the duty of the administrators of each constituency to combat food insecurity within his jurisdiction. On the other hand, India has experienced several famine episodes, which have been very

catastrophic killing millions of people. However, the 1946 famine known as the Bengal Famine was easily combated first of all because both the poor and the rich were affected and secondly by the fact that these two category of people were well organised and empowered thereby creating favourable conditions for easy mobilisation and collective action. Their mobilisation triggered government intervention that led to the initiation of several strategies that terminated the problem. Until today, no such severe famines has ever stroke India.(de Waal, 1997 and Sen, 1982)These are positive lessons that have to be learned and applied in the case of Cameroon in the nearest future, to instil the notion of responsibility in the authorities concerned.

3.4. Conceptual framework of the study

The figure below summarizes the concepts of food insecurity with particular reference to the household level. Much emphasis is laid on income poverty in particular because this aspect has been identified as the paramount cause of food insecurity in Northern Cameroon. However, the other accompanying factors should not be underestimated given their importance in mitigating the problem. This framework serves as a base for this study.

Fig. III: Causal Loop Diagram of a household food security model



Its dynamics is as described below.

There exist three major ways in which households can achieve food security, that is, through food production, public food distribution and through food purchase. The thick arrows represent this.

From point **(1)**, reading to the left, it shows that if more food aid is made available, then the quantity of food to be distributed to households will eventually increase. Equally, if more public food is distributed, then household food security will be achieved. However, its success depends on the policies that accompany the distribution.

From point **(2)**, reading to the left, the broken lines in this loop represent conditionality. Less harsh economic policies will trigger national food importation, which will increase the quantity of food available in the country. However, availability of the food does not guarantee its accessibility because it might not be equally distributed at the regional and sub-regional levels. On the other hand, if the food is equally distributed, it does not imply that everyone can afford for it. Thus its affordability depends highly on the household income that is set aside for food procurement. Considering that the affected group of persons in this case have low incomes, it implies that household purchase of food is likely to decrease thereby jeopardizing general household food security. Under such conditions, households will be triggered to create other income generating activities that will in turn increase household incomes. Increase household income will again trigger the creation of more income generating activities (balanced loop). However, the creation of income generating activities depends on the existence of markets to sell goods and render services.

At **(3)**: If policies related to the acquisition of production factors are fair enough, then access to production factors by individuals will increase. Increased access to production factors brings about an increase in total food production thereby ensuring a high household food security. Likewise a frequent and acceptable rainfall distribution of increases food production and subsequently household food security.

CHAPTER IV. RESULTS OF CASE STUDY

This case study was conducted in the North Province alone and it was restricted at the level of authorities working in close collaboration with communities that frequently experience food shortages. The results spread below represent the opinions of these authorities. Table II below shows the number of respondents per ministry or organization that were interviewed. All the ministries are the provincial delegations of the North province.

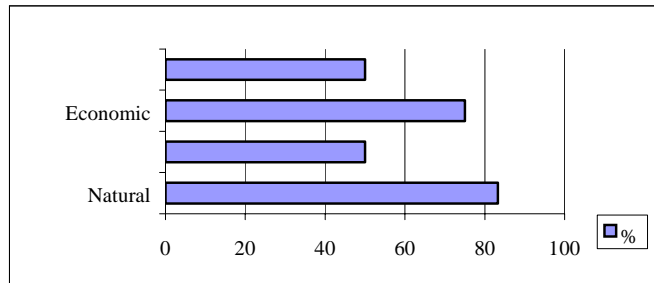
Table II: Ministries and organizations contacted

Ministry/organization
Ministry of National Education (MINEDUC)
Ministry of Agriculture (MINAGRI)
Ministry of Social Affairs (MINAS)
Ministry of Transport (MINTP)
World Food Programme (WFP)
OFFICE CECEALIER (Cereal Office)

In addition, interviews were conducted with other ministerial departments such as MINEPAT (Ministry of the Economy and Territorial Planning) and MINSANTE (Ministry of Public Health).

4.1. Causes of food insecurity in the North province

From the survey, interviews and secondary data collected with respect to this study, it appeared that there are several factors responsible for food insecurity within the region. These can be grouped into natural, economic and socio-cultural factors. Among these, the Natural factors are the most important as they rank highest, representing about 83% –as depicted by figure IV below. These natural causes of food insecurity include, recurrent floods and droughts – i.e., there is either too much rainfall causing floods or low and irregular rainfall causing droughts. Other causes include the devastating effects of predators such as elephants, insects, migratory birds and a predatory weed locally called “striga”. This weed is usually the first plant to germinate after the planting of crops such that it grows faster and overshadows crops thereby preventing them from germinating and growing normally. Quite often young crops are destroyed before they can attain maturity. The economic causes rank second, representing 67%, these include income poverty and the lack of agricultural credit to farmers. Socio-cultural factors rank third, representing about 50% among which are the lack of infrastructure, ethnic exclusion, poor land tenure system, customs and a high demography.

Fig. IV. Causes of food insecurity in the North Province

Other causes in this case still fall in the same categories as natural, economic and socio-cultural but these are more precise. The responses were, low and irregular rainfall, non-organization of farmers into groups-causing illegal sales of crops at low prices, the high speculation of cereal market prices by farmers, the lack of grazing fields and the political orientation of the region. The dry season usually lasts longer for about 7-9 months with several hours (ten) of sunshine per day. From interviews conducted with authorities of the office cerealier, each year, about 10-70% of crops are lost during harvesting. Likewise, almost 60-70% of stored crops are sold every year immediately after harvest due of the urgent need for cash by farmers (to spend on activities such as drinking of alcohol, marriage and other ceremonies).

Nevertheless, the above categories are too broad to determine the most significant causes of food insecurity faced by the population in this region. In this light another question on the principal causes of food insecurity was posed and the responses are as shown on table III below. The importance of each factor is a function of its frequency and percentage.

Table III: Principal causes of food insecurity

Causes of food insecurity	Percentage (%)
Droughts	41.7
Floods	41.7
Poverty	33.3
High demographic pressure	8.3
Lack of finances	16.7
Poor land tenure system	16.7
Unstable prices of cereals on the market	8.3
Effects of agricultural liberalization	8.3
Low literacy rate	8.3
Lack of irrigation facilities	8.3
Lack of agricultural credit to farmers	8.3
Infertile soils	8.3
Lack of infrastructure	8.3
Adverse effects of deforestation and erosion	8.3
Poor management of stocks	8.3
Influence from the political atmosphere in the region	8.3
Effects from cultural norms	8.3

This table shows the same trends as in figure IV above. Floods and droughts, which are natural factors rank highest, followed by poverty which is an economic cause.

Another important cause of food insecurity is that traders from neighbouring countries come into the region and buy much of the food during the harvest seasons. This is promoted by regional trade liberalization of the Central African zone.

4.2. Populations most vulnerable to food insecurity

Most people in this region are vulnerable to food shortages, the results show that the most vulnerable category of persons in order of significance are children (0-20yrs), handicaps, the old, widows, unmarried women and young unmarried girls. Their argument is that children are dependants and most often, their parents are financially incapable to take care of them. Young unmarried girls also fall into this category of children because the marital age of girls in the region is about fourteen years. Handicaps and the old are dependants because they are inactive and can neither engage themselves in agriculture nor in other income generating activities. Most women are vulnerable because of the institutional setting and cultural norms existing in the region. There is high gender discrimination such that women do not participate in any decision making about their own lives-they are merely implementers of decisions taken for them by men. Another aspect associated to vulnerability is that of

social or ethnic exclusion of some groups of individuals, making them more vulnerable. Widows are vulnerable because traditionally, women have no property rights to land so when their husbands’ die their land is taken over by the in-laws (interview).

4.3. Coping strategies

Results from the WFP survey on food insecurity Northern Cameroon show that many households and individuals have developed several and differing coping strategies to mitigate the problem. Firstly, they try to reduce the quantity of food they consume throughout the year so that they do not become much affected during periods of scarcity. During such periods, priority is given to children in a household and then follows the woman and lastly the husband because he is able to go out and it possible that he will not lack something to it –even if it is a glass of “bili-bili”(a local drink produced from either millet or sorghum). Secondly, most men migrate to search for jobs in the southern part of Cameroon or in neighbouring countries such as Nigeria, Chad, Central African Republic and others. Some parents send their children to work for wealthier persons or do other minor jobs in the South of Cameroon and other neighbouring countries. The third and most common strategy is the gathering of None Timber Forest Products (NTFP). Forest fruits, leaves, roots and tree barks are harvested for home consumption or for sale to acquire income. In addition, firewood is also collected and sold on a large scale. Apart form the above strategies employed; individuals and households sometimes borrow foodstuff from those who have surpluses and they repay in kind or in cash during periods of abundance, that is, the harvesting season. While some people develop these coping strategies, others rely more on aid from the government and other relief organizations. Others, especially the handicaps and children engage in begging. Some people have also developed illegal coping strategies such as stealing. Similarly, some women and young girls plunge into prostitution.

4.4. Occurrence of food insecurity

According to the survey, food insecurity occurs all year round but with the peak usually occurring between the months of April and August, which is the rainy season. Due to the poor infiltration capacity of the soils, this period is usually accompanied by huge water logging and flooding. From figure V below, about 58% of the respondents are for the fact that food insecurity in the region is a permanent issue. Temporary conditions of food insecurity is supported by 33% of the respondents. Others represent about 8% of the responses-it implies that the situation varies depending on the frequency and distribution of rainfall.

Fig V: Occurrence of food insecurity

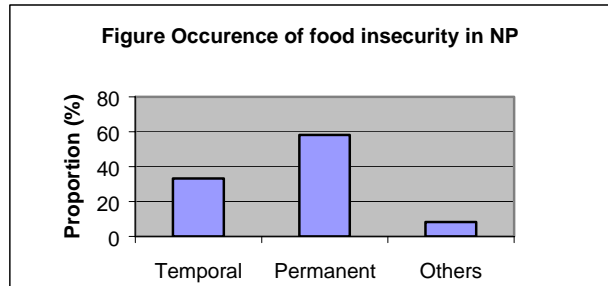
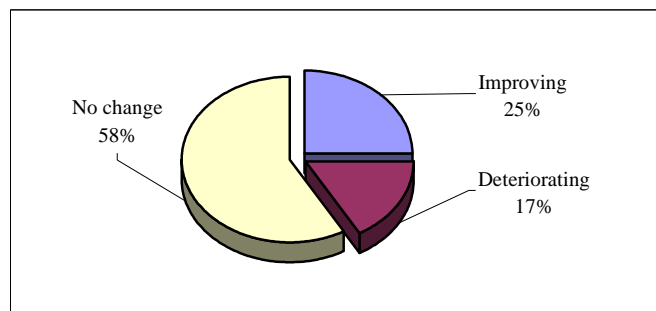


Figure VI below, shows that the state of food insecurity has not changed much since its birth. While 58% of respondents say that there has been no change in the situation, 25% believe there has been some improvement. On the contrary 17% feel that the situation is deteriorating.

Fig. VI: State of food insecurity



4..5. Consequences of food insecurity

For the past years, numerous impacts associated with food insecurity and poverty have emanated in this region. These have caused great havoc to both human well being and the natural environment. For survival purposes most of the inhabitants are obliged to gather Non-Timber Forest Products (NTFP) and cut down trees for fuel wood. The fuel wood is used either for cooking in homes or for sale to generate income. Apart from this, much of the forest is being cleared in search for fertile soils for subsistence farming. Water is becoming a scarce commodity as a result of deforestation, low rainfall and poor infiltration capacity of the soils, thereby reducing the water table level. In fact, currently, both water quantity and quality are problematic. Nowadays, women in rural areas where pipe borne water is lacking have to trek for about 8km to fetch water. The lack of adequate and nutritious food and poor sanitation conditions are manifested in the form of under nutrition, malnutrition and water borne diseases, which cause high morbidity and infant mortality. It also affects the productivity of individuals. Actually, 12% of children between the ages of 0-5 years are malnourished. On the other hand, 35%

of children between the ages of 5 years and above have moderated retarded growth; meanwhile, 15% within this same age group currently suffer from severe retarded growth (MINAGRI-PSSA, 2002).

Because food insecurity is most severe in rural areas, it has greatly led to rural-urban migration in the past years. In the late 1970s, urbanization rate stood at 15%. This figure rose to 39.3% in 2001. In addition, many immigrants are entering the province from the ENP and other neighbouring countries. One of the strategies the government used to combat the 1973 drought was the inception of two projects known as the Northeast and South-East Benoue projects. Financed by the European Development Fund, the main aim was to relocate the vulnerable from the marginal lands in the ENP to the NP. At the end of the implementation phase of these projects in 1994, about two hundred thousand people were relocated. Many others immigrated irrespective of the project. This has created population pressures both in the urban and rural areas resulting to high competition for land between the indigenes and immigrants - of course most immigrants are being deprived of fertile land (MINEPAT/UNDP, 2001).

4.6. Interventions

This section is based on what has been, and is being done and the different actors that have been involved. So far, many actors have intervened in this region in one way or the other to mitigate the problem. These include the government, donor and relief organizations, NGOs, communities and elites on few occasions. Most of them have been involved in activities such as capacity building, construction of community granaries and institutional development.

The results show that, the most influential of these actors is the government, which through international donor organizations and its personal initiatives have set up several development projects and programmes as well as structures to cater for the problem. One of the structures is the “office cerealier” which was created in 1975 with the main role of constructing village granaries for farmers to enable proper storage and conservation of their stocks. It also intervenes in cereal market prices by ensuring price regulation and stabilization. Most often, grain sellers speculate way ahead of market prices and decide to withhold their grains from the market to sell at higher profit rates during periods of lack. In the case where such a scenario occurs, it is the role of the “office cerealier” to redress it to normal. In addition, each year it buys and constitutes a security cereal stock of 15 000 tons to curb any unforeseen famines. In the case of an onset of famine, the stock is either sold at cheaper prices on the markets to stabilize prices, or it is distributed to the victims free of charge, depending on the gravity of the famine. Through the office cerealier, some rural communities today have granaries for storing their excess cereals. The government has also set up some projects in collaboration with donor organizations for the development of the region. Most of the projects focus on capacity building, provision of rural extension services to farmers, promotion of basic education and public health facilities. Cameroon was equally a signatory to the

Lagos Plan of Action signed in 1981. Likewise at the local level, the Cameroon Government has an agricultural policy plan with main goal of achieving food self-sufficiency for all its citizens. (Africa Environment Outlook, 2002). All these plans have been documented and they are an indicator of the relentless efforts made by the government to combat food insecurity nationwide.

An international organization such as the WFP has intervened primarily through the provision of food aid. Currently, WFP has instituted a school-feeding programme in the region. According to WFP sources, this programme has greatly increased primary school enrolment in the province over the past five years. The number of girls is almost equal to that of boys and in some village-schools, there are more girls than boys(interview). Table IV below shows the rapid evolution of primary school enrolment in the north province –a result of the WFP school-feeding programme.

Table IV: Evolution of primary school enrolment in the North province

Years	Boys	Girls	Total	Percentage %
1998	125 334	117 452	242 786	46.12
1999	133 738	125 319	259 017	50.37
2000	142 747	133 754	276 501	68.23
2001	152 434	142 824	295 258	64.88
2002	162 619	152 356	314 975	69.71

Source: North Provincial delegation of education and MINEPAT, 2003.

Apart from the school feeding programme, the WFP in collaboration with the government of Cameroon and other United Nations Organizations units have formulated a country programme with the main goal of enhancing sustainable food security and poverty reduction in the region. The programme that is supposed to run from 2003- 2007 focuses more on women and girl children because they are categorized as the most vulnerable within the society. The main aim is to assist in creating assets for these vulnerable persons. Most of the projects focus on income generating activities, for example, aquaculture. Other accompanying activities will include the construction of community granaries, the construction of mini- hydro facilities and finally the construction of rural roads. All these activities will be executed under the umbrella of food for work strategy. Many locally and internationally (relief organizations) funded NGOs have also intervened in mitigating food insecurity in the province, for example, the Lutheran church. Although no interview was conducted with them, information documented, proved the great role they play in mitigating the problem. Most often, the affected communities have intervened as co-financiers and have contributed in kind on some occasions. About 80% of respondents agree that elites play a very insignificant role in times of crises. These elites are the rich people (Members of Parliament, Ministers and Directors and traditional rulers with large herds of cattle and other business operations) in the province.

4.7. Evaluation of the activities of different actors

When asked to evaluate the activities of the different actors, the responses were as follows

Table V: Evaluation of activities of donors

Response	Percentage
Donors impose projects on communities	41.7
Aid from donors does not reach beneficiaries on time	25
Strategies formulated are not suitable for the resolution of the problem	16.7
The office cerealier is efficient	8.3
Government intervenes partially	8.3

From table V, 41.7% of the respondents believe that donors do impose projects on communities. Which implies that communities are not given the opportunity to take decisions about projects that are of benefit to them. Another 25% of respondents were for the fact that aid (in kind or in cash) from donors does neither reach the beneficiaries on time nor is it well targeted. Quite often victims receive food aid say four months after the period of disaster, either because of too much bureaucracy involved in identifying the victims or some manipulations along the line by the authorities in charge of distribution. Manipulation may be that, distributors stock the food for their selves, give it to their friends or sell it to traders who later on sell it to the people at higher prices. On other occasions some victims do not benefit at al(interview)l. Meanwhile some authorities were for the fact that so far strategies put in place to combat food insecurity have not been suitable enough to tackle the problem.

4.8. Food for progress

This year, 2003, the government of the United States of America donated agricultural commodities to the Cameroon government under the Food for Progress Act. This food consisted mainly of rice equivalent to 24 500 metric tons and worth the sum of 5.1 M US dollars as transportation cost. In fact many people are unaware of this agreement and its usefulness to Cameroonians. By the time of collecting information on this thesis in North Cameroon, almost all the authorities contacted had no idea about this issue. This is reflected from the interviews and responses in the questionnaires. These are authorities that work closely with issues related to food insecurity yet they had no idea. Meanwhile, some admitted having heard rumours that rice had been brought in from the south of the country, but they knew neither the person in charge nor the method in which the rice was to be sold. When respondents were asked about their opinion on the food for progress strategy as compared to other strategies such as food for work and food aid, most of them denied that they were uninformed. However, after explaining to them what food for progress is all about, some argued that it would be difficult to do without food aid in the region because most of the vulnerable people are impoverished and have insufficient income to

purchase food no matter how cheap it might be. So, they suggested that food aid should be continuously provided until the situation ameliorates.

4.9. Suggestions for a sustainable food security

Many strategies to mitigate food insecurity have been proposed by the respondents. These vary, incorporating all the various aspects associated with the issue.

1. NGOs should be highly involved in accompanying rural organizations
2. There is high need for granaries for storage and better conservation of food crops
3. Farmers and grazers should be given the possibility to acquire loans at low interest rates through the provision of agricultural credits as was the case in the past
4. Sensitisation campaigns in general for the public and particularly for farmers should be carried out so as to instil the notion of professionalism in them.
5. The office cerealier should also have sub-units in the rural areas where the actual victims reside.
6. Children should be given education, with emphasis on girl children
7. The Northern woman should be liberated and involved in decision making
8. Some institutional and cultural norms should be banned
9. Communities should organize themselves into groups to facilitate mobilization and collective action.
10. New agricultural techniques should be promoted to increase production output and research should focus more on irrigation techniques and on drought resistant crops that are suitable for the agro zone.
11. Government should revise its policies on the commercialisation of food crops
12. Development activities carried out should be monitored and evaluated to ensure efficiency
13. Ethnic barriers need to be broken so that everyone can have equal opportunity.
14. Aid should be well managed and its distribution should be timely
15. Farmers should be taught on crop storage facilities.
16. Economic investors should be given incentives to invest in the region thereby creating employment opportunities for the inhabitants.
17. Food crop production should be diversified and intensified
18. Conflict between grazers and farmers should be resolved-
19. Traditional rulers-lamidoes and other elites should be participate actively in development activities.
20. Community member should be involved in project formulation and implementation

All the respondents were for the fact that food insecurity is the plight of everyone so it necessitates collective action in reverting it.

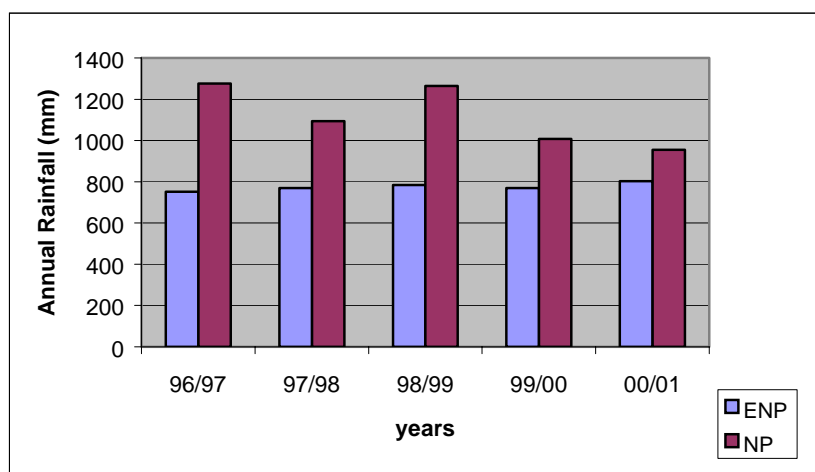
CHAPTER V: DISCUSSIONS

5.1. Causes of food insecurity

5.1.1. Natural factors

As presented in chapter three, the causes of food insecurity are natural, economic and socio-cultural. The study reveals that natural conditions are the most significant, followed by economic and socio-cultural factors (fig. IV). Actually, the state of the natural environment, especially the frequency and distribution of rainfall influence favourable conditions necessary for agricultural productivity and therefore household food security, thus if the rains are unevenly distributed, low or very high, then it becomes detrimental to agriculture. The irony in this region is that either the rains are low leading to drought conditions or very high and less frequent causing inundations. Coincidentally, the rainy season usually begins during the month of May and terminates in September, which is also the planting season. So it happens that after planting, by the time the crops are germinating, the inundated water destroys them. Likewise, during the dry seasons, too much sunshine causes a high evaporation rate resulting to much water being removed from the lithosphere into the atmosphere. The consequence is that young crops die off due to lack of water uptake and moisture for proper germination and growth. And because the hydrological cycle has been disturbed, the water table is reduced, making it even more difficult for young crops with delicate, shallow and less ramified roots to absorb adequate water from the subsoil to the topsoil. Figure VII below shows changes in rainfall in the North and Extreme north provinces over years. Unfortunately, data could not be gotten for all the years due to the absence of a good database. The values fluctuate over years with the NP recording higher values.

Fig VII: Changes in precipitation levels in the NP and ENP



Most people argue that there is a direct relationship between the amount and distribution of rainfall and production output, but is this fact real? It is difficult to make a correlation between these two variables because there are other vital aspects that have to be considered such as the hectare of land cropped, the use of inputs, the agricultural technique used and the types of seeds planted (Diskin, 1997). The focus in Northern Cameroon tends to weigh more on rainfall patterns while neglecting the role of the other factors. However, each cannot be considered as a separate entity, thus it is only when all these separate factors are combined, then can one talk of a better agricultural output. The negligence of the other factors apart from rainfall has been a major bottleneck to improved agricultural productivity in the North of Cameroon. However, it is not the will of the farmers themselves, but the fact that they are poor and incapable to utilize the other factors

Table VI: Trend in cereal production over the years in the NP and ENP.

Year	Extreme North			North province		
	Total productions(T)	Quantity needed (T)	Déficit/ Surplus(T)	Total Productions (T)	Quantity needed (T)	Déficit/ surplus (T)
75/76	253 683	229 161	+24 522	71 000	78 725	-7 725
76/77	267 458	235 190	+32 268	77 083	82 765	-5 682
77/78	230 092	241 365	-11 273	66 044	87 020	-20 976
78/79	289 485	247 722	+41 763	71 000	91 503	- 20 503
79/80	251 292	254 243	-2 951	77 457	96 201	-18 744
80/81	262 841	260 928	+1 913	68 973	101 144	-32 171
81/82	207 341	267 793	-60 452	51 331	106 352	- 55 021
82/83	381 153	274 840	+106 313	55 144	102 298	-57 154
83/84	223 298	282 066	-58 768	49 499	117 555	--68 056
84/85	127 041	289 474	-162 433	68 186	123 598	-55 412
85/86	364 532	297 112	+67 420	89 831	129 954	-40 123
86/87	450 395	304 799	+145 596	101 799	136 656	-34 857
87/88	424 406	312 814	-111 592	85 201	143 653	-58 452
88/89	292 803	321 043	-28 240	82 640	151 045	-68 405
89/90	359 528	329 486	+30 042	99 952	158 813	-58 861
90/91	245 992	338 158	-92 166	125 862	166 977	-41 115
91/92	402 234	347 044	+55 190	126 755	175 550	-48 795
92/93	432 517	356 176	+67 341	186 346	184 568	+1 778
93/94	180 200	365 538	-185 338	173 948	194 061	-20 113
94/95	-	-	-	-	-	-
95/96	-	-	-	-	-	-
96/97	355 000	-	-	-	-	-
97/98	384 000	-	-	364 293	-	-
98/99	300 857	-	-	327 781	-	-
99/00	329 372	-	-	374 623	-	-
00/01	-	-	-	213 111	-	-
01/02	-	-	-	309 558	-	-

Source: Office cerealier, 2002 and the North provincial delegation of Agriculture: Activity report 2000/2001.

Cereal production speculations for the year 2002/03 in the North province stands at 267 204T while total need is estimated to be 385000T, evidently, there will be a deficit of 117 796T(MINAGRI/PSSA and MINEPAT, 2003).

From table VI, above, a comparison of the precipitation and production data of the ENP does not show any direct relationship between the two variables. For example, rainfall level for 1997/98 is lower than that of 98/99, but the total production of 97/98 is higher than that of 98/99 agricultural year. This is particularly so in the ENP because they rely more on the dry-season sorghum (locally called “muskwari”) which is drought resistant and more yielding than the rainy season type. On the contrary, in the NP, there is a direct relationship between rainfall levels and total production, but this relationship does not hold for all the years because of the influence of other factors. It can well be argued that production increases as a function of increase in the surface area used for agriculture and the output per hectare of land during a particular agricultural season. Unfortunately, data on the number of hectares of cropped land could not be gotten. Another angle of perception can be that of soil fertility, that is, if more marginal lands with little or no fertilizers are cropped, there will be less productivity and vice versa. Conclusively, it is uncertain if rainfall is actually a major barrier to increased agricultural productivity in Northern Cameroon because the data used represents annual figures. It could differ if monthly data were used, as this will better show the frequency and distribution during the planting season that is important for agriculture. From table VII, the years of huge cereal deficits coincide much well with the years of occurrence of disasters, as stated in chapter one.

Vegetation cover is also very crucial for agricultural productivity as it determines the quantity of Carbon stored in the soil. The carbon content of each soil is related to its fertility. In this region, much of the vegetation has been lost due to human activities and natural factors. In fact, these people cannot be restricted from encroaching into the endangered forests because it is their only means of survival and unless they have other options for sustenance, then can they put a halt to this practice. They have little or no income to purchase food in times of scarcity and because they lack the possibilities to seek for opportunities elsewhere, they are bound to reside in their natural milieu and make use of the resources there available. In fact such people care more about their survival than about a judicious exploitation of resources-, which is inherent to human nature. Moreover, the demographic pressure is high exerting more pressure on the resources thereby causing more soil and land degradation.

To fight against pest infestations, famine early warning systems should constantly observe the situation and be prepared to respond at any time. However, the necessary logistics have to be provided by the government to ease the accomplishment of the task. Research centres could carryout some studies on the “striga” plant to device some possibilities of eliminating it farmers’ fields.

5.1.2. Economic factors

Poverty, especially income poverty is a major impediment to agricultural production and development in Cameroon. There are huge income inequalities among the population with a majority of the populace having very low incomes. The income level of a household is a major indicator and guarantee to food procurement during periods of lack. Income is also required for purchasing land, improved seeds and provides opportunities to be educated. Many parents do not send their children to school because they lack sufficient income to provide for them the required school needs. Since the Liberalization of the agricultural sector in Cameroon in the mid 1980s, farmers were left at their own mercy. These farmers who were already used to receiving free inputs and transport support from the state were confronted with a drastic and sudden change in policies. Because they were not prepared for the change in advance, it became very difficult for them to accept and incorporate the change into their normal daily lives. During this period, prices of cash crops fell below normal and the state could no longer buy their produce as usual. They were allowed to look for a market for their produce, which was really difficult because they never did so before. Consequently, many stocked their produce at home waiting for better prices, which never came, and the produce in most cases deteriorated causing great financial losses. Indeed, most farmers saved little or no money during the good periods because they were not aware that the situation would one day change. So when the period of crisis stroke many were helpless and could neither purchase fertilizers nor search for a market for their produce. This period marked the onset of the farmers’ problems in Cameroon. Many continued in this condition and later on shifted partially towards food crop production, which is not also rewarding but at least they are sure of their subsistence. Today, most do not have access to financial credit because they lack collaterals to present to the banks as guarantees for loan acquisition. Quite often, it is the rich who benefit from such schemes because they have access to information and the farmers most often lack information about the existence of such financial services because there are no rural radios and other communication systems to convey the information to them. Today, most have tended to grow cotton because they receive assistance in the form of cash and input from the cotton production company (SODECOTON)(Interview). So fertile land that could be used for food crop production is rather used for cash crop production that is destined for export. Although cotton production is not lucrative, most are engaged in it because of the incentives they receive and sometimes, they use a portion of the fertilizer for maize production to increase household food crop production. But this keeps the farmer in a vicious circle because he has to pay back in kind during the harvest season. During such period, SODECOTON imposes its price on the farmer who is obliged to succumb. Usually, if a farmer’s produce is not equivalent to the quantity of fertilizer s/he was lent, then the debt is carried forward to the next production season, and the trend continues. As much as one can argue that land use is a problem, it is conspicuous that these farmers are faced with a dilemma. According to information gotten from the office cerealier, most farmers refuse to expand and diversify food crop production because of the absence of inadequate marketing, storage preservation, processing and transportation facilities.

Consequently, most are compelled to consume or sell their grains immediately after harvest rather than allow it to be destroyed by insects. On the contrary SODECOTON possesses a well-organized training, production and marketing system. At the end of the harvesting season, the farmers are sure of selling their produce even if the prices are not that encouraging. In fact giving farm inputs and equipment to farmers is a great motivation and it keeps the farmer more optimistic and orientated in his activities. Mechanized agriculture is almost inexistent in this region whereas the nature of the terrain (flat) makes it very suitable for the application of this technology. Although one might say that land is wrongly used in this region because much of the fertile land is used for cotton production, on the other hand, land is capital and capital is supposed to generate interest and normally, no one will be willing to put their land into an unprofitable use. Actually, if the populace has to grow more food crops, then food crop production should be made profitable for them.

So the lack of financial credit and personal finances by farmers is a great impediment to increased food crop intensification and diversification. Besides, food production is not the only means of ensuring adequate food supply. Although Cameroon has not yet attained the level of growth that can permit its citizens to have valuable incomes for dependency on all year round food procurement. Financial assistance should be given to farmers at low interest rates in order for them to create income-generating activities (off-farm activities) that will improve on their incomes, purchasing power and subsequently their livelihoods. Gone are those days when the Structural Adjustment Programmes of the WB and IMF condemned the role of the state in development. Equally, farmers need to be organized in groups and taught on the notion of professionalism. Due to the linkage between food insecurity and poverty, poverty alleviation measures should incorporate those to combat food insecurity. The IFPRI, 2001 reported that poverty will reduce by 0.6% for every one percent rise in agricultural productivity

5.1.3. Impacts of regional economic liberalization on food security

Cameroon is a member of the Economic and Monetary Community of Central Africa (CEMAC) as well as a member of the Economic community of Central African States (ECCAS). The other member countries are Chad, Gabon, Congo Brazzaville, Equatorial Guinea and the Central African Republic(fig.1). The main aim of these unions is to foster economic cooperation, allow for free trade thereby promoting a stronger currency between the member countries and to promote sound environmental management in the region (Africa Environment outlook, 2002). Trade liberalization is good but it is not void of problems, with the most prominent being that the weaker countries with less or no comparative advantage tend to suffer most from adverse terms of trade because not all countries are endowed with equal types and quantities of resources that permit them to actually compete with their counterparts. It is the opposite in this case because countries with fewer resources instead tend to benefit from those with more resources. So far, Cameroon is the only member of the CEMAC countries that is endowed with a lot of natural resources and a better economy of about 5% annual growth rate.

This has resulted to an influx of traders from the CEMAC member states into Cameroon. They come to buy goods and foodstuff to resell on their local markets due to scarcity. For the past decades, Chad and Central African Republic have been known to suffer from recurrent food shortages. Apart from them, Gabon, Congo, Nigeria and Niger also purchase huge quantities of foodstuff from Cameroon during the harvest season. The IFPRI, 2001, argues that, “Economic liberalization worsens inequality within and between nations, with strife and violence the inevitable result”. Nowadays, violence is a major problem in Northern Cameroon as a result of insufficient resources available to meet the demands of all. The few that are available are rather taken away by citizens from other countries due to economic liberalization. The situation is not different in Southern Cameroon where these traders buy immature food crops on the fields and harvest them when they are matured. Usually, the farmer is paid at this stage-so he has no right to the field until the crops are harvested by the trader. This leaves many families with very small quantities of food at their disposal throughout the year. If the situation continues, it might lead to violence between the different countries in the region. Thus the need for policy options that will set quotas and minimize indiscriminate and illegal purchases and export of food crops is paramount.

5.1.4. Socio-cultural factors

Indeed, education has a great influence on agriculture and development. A farmer needs education for knowledge on types and quantities of fertilizers needed for his field to improve yields. Apart from this, he requires knowledge on the importance of using new techniques, improved seeds and stock management to improve on their food security. Equally, education can contribute to increasing the income levels of households, as they will have the opportunities to get better paying jobs. Studies conducted by the World Bank in Vietnam showed the differences in agricultural output between educated and uneducated farmers utilizing the irrigation technique. The results proved that educated farmers could better use the technique and had more returns compared to the uneducated ones. (World Bank, 2000/2001). Most of the time, they prefer to sell it at cheaper prices during the harvest season or use it to prepare local alcoholic liquors. Although sometimes it is because of the absence of good storage facilities or good marketing system as explained above, alternatively, it can be due to the lack of knowledge on stock management and poverty. Education on stock management is very crucial because it will enable farmers to maintain a security stock that can serve during periods of lack. In this regard, it warrants the construction of granaries. But considering the high costs of granary construction, it is not feasible that these people can afford for the costs-so they need external help, either from the elites, the government or international donors. Although the project on granary construction was initiated since the birth of the office cerealier, many communities are still left out because of financial constraints.

The Asian development Bank (ADB), argues “Poverty is both a cause and an effect of insufficient access to or completion of quality education”. It states that education empowers, that is, “it helps people to become more proactive, gain control over their lives, and widen the range of available choices”. It further stresses that

“education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty and obtain the means to participate fully in their communities”(ADB, 2002). In fact, education is a major promoter of economic growth, which helps to improve individual, household and national incomes and other opportunities, thereby reducing poverty. With education, people are more open to use new technologies that can help them to improve on their productivity and therefore better standards of living. As Giovanni and Court put it, “as more educated people enter the labour market, the speed of technological innovation goes up, followed by skilled job creation. More people earn higher wages, and as a consequence income inequality starts declining (Giovanni and Court, 2001). Historically, most countries that have achieved growth have had educated people and a better agricultural system.

The literacy rate is very low although it has shown some increment during the past five years at the level of primary education (table IV).The main reason for the increment is the institution of the “school-feeding programme” initiated by WFP in the region. Despite this increment at the primary level, the secondary and tertiary levels remain very low because after completing primary school, most of the children are culturally matured to begin a trade or marry in the case of girls. Culturally, most girls marry between the ages of twelve and eighteen years so instead of going to school, they stay at home to be trained by their mothers on the management of their future homes. The disparity in the rates between boys and girls enrolled in schools shows the vital role that girls play in the household-fetch water and help in the general upkeep of the house. On the other hand others might be willing to educate themselves but lack the finances to do so. Indeed, “Women are an important engine of growth and development”(WDR, 2003). Despite the much-published documentation on the formidable role they play in agriculture, they are not yet given the opportunity to express themselves and take decisions in community development. In formulating educational policies, much consideration should be given to both women and girls. During periods of famine, the men migrate for several months or years in search for jobs, but they leave their wives behind to take care of the family. These women, despite the difficult circumstances they undergo, they still do their best by saving and judiciously managing the few resources at their disposal and making sure that the household is in order. So, if the woman is educated, they will be able to improve on the nutritional status of the household. Consequently, morbidity and infant mortality due to malnutrition and under nutrition will be greatly reduced. Surely, educated women are more open to discussion with their spouses on family planning issues so as to reduce average family sizes and therefore the total population and improve on the general well being of the entire family. Social exclusions should be broken because it deprives many people from the freedom of expression. In this region, the “Peuls” are the domineering ethnic group, not because they are the majority but because they are the most educated and most rich. This gives them more powers to override the uneducated and less privileged. In fact, investment in human resources should be one of the paramount considerations in the formulation of strategies to enhance food security because the

world of today is very dynamic and competitive, so it needs educated and dynamic people to face and survive such competition.

The population of this region is very high and dominated by women and youths of less than 20 years of age. The higher the population, the lower the quantity of resources available to each individual thereby limiting access to some people and jeopardizing their food security. This creates high competition for the available scarce natural resources triggering huge inequalities between the poor and the rich. Consequently, the poor are marginalized and pushed out onto the marginal lands such as the Mandara Mountains in the ENP. The results are natural resources depletion and environmental degradation (MINEPAT, 2003). In both provinces, women represent about 52% of the total population, and most of them are housewives. In the ENP, children less than 15 years of age represent 46.6%, adults greater than 55 years represent 6.2%. This implies that the working population simply constitutes about 47%. In the North province, children less than 15 years of age represent 38.45 % while the old represent 4.16%. Thus the work force represents just about 57%. This percentage is only high in relative terms, in reality; it is quite insignificant because most of these people are jobless or self-employed with very low average wages. In addition, most consists of women who are homemakers with basically no financial contributions to the household. Thus there are more dependants as compared to the work force.

More over, the unemployment rate in the region is quite alarming because of the absence of industries to employ the many jobless persons; High unemployment rate increases income poverty and eventually the purchasing power of individuals and households. This phenomenon has created a conducive atmosphere for illegal activities in the region. High crime rate and general social unrest are frequent and further compounded by the fact that the population is dominantly rural practicing subsistence agriculture with little or no surpluses for sale to generate income. As such even when food is available, the poor are still unable to afford for it. Being rural implies that their opportunities within the society cannot be widened because they are less competent to compete with their urban counterparts for the available choices that exist in the urban areas. They are bound to stay in their milieu and when famine strikes, they sell their assets including cattle in order to meet up with their food needs thereby propagating poverty. This same argument was advanced by Amartya Sen, as was observed during the Sahel drought of 1973/74 (Sen, 1982). Indeed food insecurity poses a treat to the general peace and security of a country.

Actually, the characteristics and size of a population is very much related to the production capacity and the utilization of natural resources, thus measures to reduce population and create employment opportunities are indispensable in policymaking.

Access to land is determined by the policies that relate to its acquisition and consequently the production output of a household. Although other factors do contribute, the first and most important step is to poses land. In this

region, land belongs to the traditional rulers (Lamidos) and they take decisions as to the quantity of land to be acquired by an individual. Average land holding is about two hectares (distributed as four or five pieces of land in different areas). In fact two hectares of land is too small for a family of say twenty-five persons to crop enough food throughout the year, added to the poor nature of the soils. Furthermore, there is no individual property right to land apart from a few rich individuals who do so. In reality, this land belongs to the government –which implies that each citizen is free to use it provided s/he pays the user fee. Unfortunately, due to some reasons, which cannot be advanced in this document, land tenure has become a nightmare. Family sizes are usually very large with the smallest comprising of about seven persons while others may be as large as fifty or more persons. This is so because traditionally, a boy never leaves his father’s home, he can get married to as many wives as he wishes and all of them will give birth to children and will all reside in the same house with his parents. They all crop the same piece of land owned by the father who is solely responsible for managing the harvests and until he dies then can his sons inherit his land. On the contrary, the rich can lobby and purchase much land from the traditional rulers and distribute to their sons. Consequently, the poor are forced to work as labourers or sometimes sharecroppers for the rich. Obviously this will lead to more future generations of poor and rich dynasties in the zone (interview).

The issue of land tenure is further aggravated by the conflict that exists in land use between grazers and farmers because different land uses are not well defined and partitioned. Livestock rearing began in this region long ago with the arrival of the Fulani who are known to be emotionally attached to cattle. Sometimes grazers allow their cattle to feed on crops because they have no green pasture for them. The farmers react legally (traditional rural councils manage such conflicts), but because the gains made from cattle sales are higher compared to the fines imposed, most grazers usually prefer to allow their cattle feed on the crops. On several occasions, this has caused the destruction of many crops and the victims end up being affected by hunger. Despite the frequency of such conflicts no concrete solutions have been adopted to halt them. In fact these conflicts reoccur due to negligence because it is very important to demarcate between grazing and cropping fields and likewise cattle can be fed in feedlots and allowed out once in a while, provided it is on the grazing fields. Clover grass and other vegetation required for feeding the cattle can be grown on another piece of land and then given to the cattle in their feedlot. This can be a good method because the clover grass will also help to add Carbon into the soil, which is needed for effective plant growth. In general, land policy has to be revised if food security has to be achieved in this region because more than half of the population is made up of poor people who rely solely on land for their survival.

Culturally, the Northerners have a unique dietary habit. They consume mostly cereals and particularly sorghum. This is why this study makes much reference to cereal production. Other food crops are grown but on a very low scale and mostly for commercial purposes. This consumption pattern, coupled with the poor infrastructure

network inhibits the transportation of food crops from the South where there is surplus to the North. Rice paddies were set up in the ENP during the 1960 by the government. These use irrigation techniques and much rice is being produced yearly. However, the inhabitants do not consume it because firstly, it is more expensive on the local markets compared to imported rice and secondly, they do not have the habit of consuming rice on a regular basis, unless when their preferences are lacking. Rather, they prefer to consume sorghum and millet. Changing their dietary habits require a change of mentality of the people, especially those who have never travelled out of their zone because as people travel, they become adapted to changes. Being Fulani, most of them are herdsmen and have no skills in agriculture. They practice agriculture with rudimentary tools and because of the deep emotion they attach to cattle, they do not have much time to spend in agriculture. They prefer to sell their cattle in exchange for food crops. But, because they normally have to buy almost all food needs from the markets, the sales from the cattle alone are insufficient for them to meet up with the necessary costs.

The non-availability of social infrastructure such as markets, roads and hospitals contribute immensely to under nutrition and malnutrition, morbidity and infant mortality because individuals employ wrong feeding habits. Markets are very important for rural people because it enables them to exchange their produce for cash as well as to buy other needs. Meanwhile, in the absence of markets, many farmers will not like to grow much food than they need for their subsistence. Markets in this region are very far off and the road network is very poor for transportation of goods. Although there exist small markets at the village levels, these are less important because it involves only the interaction of the community members with the same type of goods to offer. The absence of information on famine early warning system prevents the farmers from preparing for the advent of a disaster in advance. This unit, called the SNAR in Cameroon, existed some years back. Today, it has been dissolved despite its indispensability in such a region that is pruned to food shortages. As such, they are usually incapable to respond when a disaster strikes. Apart from agriculture, there are very few other income-generating activities due to the inexistence of appropriate structures and institutions. The high rate of morbidity and infant mortality can be attributed the practise of poor nutrition habits, the lack of adequate health infrastructure and personnel to disseminate health care information to parents. These aspects have to be taken into consideration especially when implementing the poverty reduction strategy Plan for Cameroon. The document emphasizes on the provision of essential social services such as, education, health, potable water and road infrastructure (Cameroon government, 2000). It seems very promising for the future but as usual, effective implementation is always problematic.

5.2. Populations vulnerable to food insecurity

From section 3.2, the vulnerable include, children, women, handicaps and widows, most often, whom do not usually know their rights and lack political power. Sometimes, they know their rights but cannot exercise them due to the institutional settings of the society in which they live. In reality, everyone has the right to food, but this statement is affirmative only if the affected persons know their rights and responsibilities. In northern Cameroon, many people fall into this category because they are neither educated nor empowered-as such cannot express themselves despite the fact that there is freedom of expression. The non-organization of these farmers makes it difficult for them to mobilize and fight for their rights to food and against famine. They are usually unable to take pertinent decisions for themselves. In such circumstances, they expect the elites, most of whom are their representatives in the government and other public institutions to defend their interests-yet elites play a very insignificant role during such periods of stress. This has raised several questions as to their role in improving the livelihood of their electorates and the society as a whole - all they need is the people’s votes to maintain and sustain their positions, without concern for the destitute. Experience from India shows that famine was eliminated during the Bengal Famine of 1946 because the affected (poor) were empowered and organized creating favourable conditions for them to mobilize and fight for their rights (De Waal, 1997). This thus calls for the urgency in institutional development and capacity building in Northern Cameroon to allow for effective mobilization and collective participation by all. Furthermore, most deprived, especially the handicapped are not usually socially acceptable in the society because they are inactive and rely mostly on other family members whom in most cases live from hand to mouth ; the situation is worst if the handicap is an adult (WFP, 2002). Apparently, they are not usually well equipped to face unforeseen circumstances due to the lack of necessary assets such as infrastructure, land and income to reinforce their coping strategies.

5.3. Coping strategies and Consequences of food insecurity

All the coping strategies enumerated in the results (section 3.3 above) are both beneficial and detrimental. Beneficial in the sense that human life is being saved and detrimental because of the adverse impacts on the environment, which further exacerbate the problem. The state of the environment is on a downward trend and if this is not checked its carrying capacity will be surpassed causing widespread sufferings in the nearest future. Notwithstanding, these people have no choice than to rely on these coping strategies. The most offending is the illegal activities carried out by some persons. While some engage in stealing cattle and other livestock, others, especially young girls and women are forced to prostitute to get some cash for their survival irrespective of the outcomes such as diseases and HIV/AIDS. Just as violence may be caused by food insecurity, so can food insecurity be a cause of violence. Of late, the highway in this region has been in the possession of arm bandits whose livelihood depends on the property and money that they steal from passengers and many people have lost their lives in such conflicts. Again, the people cannot be blamed because everyone needs to survive and because

they have no alternatives, they are bound to engage in such activities until they have other alternatives. Although it is inherent in human nature to be egoistic and amass wealth, it is evident that the rate at which illegal activities are being committed can greatly reduce if people have several choices. This problem has weighed negatively on the tourism industry, which used to be a great contributor to the national GNP. This region is very famous for its tourist attractions but for quite a while, many tourists are sceptical to visit the area because of the prevailing conditions.

5.4. Interventions

The results show that most actors have intervened in the domains of capacity building and institutional development. However, the impacts from these interventions are yet to be perceived as more people become affected. So far, success has only been in the education sector. The question posed is what went wrong and why? Truly, Humanitarian interventions during periods of crises have played significant roles in saving many lives in the region. However, these interventions must be collaborative and goal specific, especially if they come from outside (international). Most often, these interventions are short term without looking for appropriate sustainable and viable long-term solutions to the problem. It is not to deny the fact that short-term interventions are worthy. But due to the persistent nature of famines, both short and long-term measures should be prioritised so as to gradually walk out the victims from the situation. Nationals need to be involved because they better understand the problem although often financial incapable to rescue it. The evaluation results above reveal that most actors have intervened partially. Donors impose projects on the communities, well it is right to impose in case of emergency but this should not be the case for long-term solutions because the beneficiaries need to be aware of any developmental projects within their community. In fact, they are supposed to be involved at every stage of a projects life cycle so that they become acquainted with the technology and how to disseminate the information to others. It is worth noting that , these people are knowledgeable on several development aspects so their contributions can always make huge differences especially when it comes to understanding local realities. International actors need to understand that each nation and group of persons has its specific norms and it is very important to understand the anthropology and sociology of the people to effectively communicate and successfully work with them. Integration of the beneficiaries into their activities can be the most effective means of overcoming such cultural barriers. Actually, WFP interventions in Northern Cameroon have been of great relevance to the well being of the people and development of the region. This initiative has given the opportunity to poor children who could not afford to go to school because they have to spend much of their time helping their parents to get food for the household. Many parents now know the potential role of education and have tended to send their children to school. Indeed these children will make great positive changes in the future to both the respective families and the society at large.

5.5. Evaluation of activities of donors

The fact that aid does not reach the victims on time suggests that there exist no poverty or food insecurity mapping for the region. Food shortage is a well-recognized issue in the region and it is already known that the situation will keep on recurring. Therefore, instead of trying to identify victims each time a crisis strikes some indicators should be formulated to enable the identification of the vulnerable households or individuals so that aid provision could be punctual and timely. Although the region is known to be food insecure, the victims are still to be identified because not everyone is affected to the same extent, thus the need for identification indicators. Apart from vulnerability mapping, there is the need for a famine early warning system to inform the populace in advance of a possible disaster.. Aid should also be well targeted because the real victims do not often benefit. Monitoring and evaluation are very important components for future improvements in similar interventions. Meanwhile, an early warning system should be accompanied by a response system because any successful abolishment of a disaster is reflected in the preparedness measures set in place.

Although some people said that the *office cerealier* is doing a great job by regulating market prices for cereals, from interviews, others think that its activities are much centralized so the need for expansion into the rural areas where the actual victims of food insecurity reside. This will enable them to better understand their problems and work more closely with the victims.

More interestingly is the fact that those who are supposed to take decisions to redress the problem argue that so far the decisions taken have not been suitable. This raises some suspicion in the functioning of the administrative system. Does it mean that the provincial authorities are merely implementers of decisions taken at the central level or if actually they are involved, are they not competent enough to accomplish the tasks? If this is the case, then surely there might be some problems at the policy level that needs to be revised. It is amazing and puzzling because these are the field workers who under normal circumstances are supposed to spear head in formulating policies that relate to the problem.

5.6. Questioning the ideas behind food for progress approach

The new strategy to improve on development in Cameroon is questionable. Is there going to be continuous provision of food aid in the nearest future still? What ever the response is, food for progress is not a good strategy because it is going to destabilize market prices of grains on the local markets. This imported food is supposed to be sold at cheaper prices compared to the home produced grains. Normally, this will cause a shift of consumers to buy more of this grain because it will enable them to save some money for other purposes. Consequently, local farmers will be forced to reduce prices for their grains because they need money too, but it will be detrimental to agricultural production as a whole because, most farmers will be discouraged and

compelled to reduce their production capacity since they are not sure of a ready market for their produce. Again, why does the US have to give out such huge quantities of grain to Cameroon for free? Is it the search for dumping ground as has been the case with other countries in electronic goods? (IFPRI, 2001). If developed countries continue to provide such types of food aid to developing countries then, apparently, the developing countries will be satisfied and see no need for them to formulate good agricultural and food marketing policies. Aid is good but this should be spontaneous and specifically in the case of emergencies. Irrespectively, aid should be granted only to those who are really vulnerable else some people will become contented and rely solely on aid for their livelihoods throughout.

CHAPTER VI. THE WAY FORWARD

Suggestions for the future

Combating food insecurity in Cameroon is a big challenge to the government, the general public and the international world at large. However, Cameroonians do not have to rely much on the international community because the reshaping of internal micro and macro policies are primordial in redressing the problem. At the same time, the formulation and implementation of these policies should be rightly targeted so that the victims are the actual beneficiaries. Among all, monitoring and evaluation to ensure transparency and accountability should accompany implementation. Despite the challenges involved, there exists several opportunities which if well utilized could produce positive outcomes in the future. Resource wise Cameroon is endowed with varied types and huge quantities of natural resources that are adequate to meet up the demands of the citizen. Equally, the technology and competences are available but the challenges faced is how to combine all these opportunities to produce the awaited outcomes. The attainment of this goal inevitably requires devotion, dedication and patriotism on the part of the authorities concerned. Once these criteria are met then there is bound to be transparency and accountability in the system. In this light, policy formulation to combat food insecurity should focus but not limited to the various recommendations below.

- Pricing and marketing reforms should be reviewed. Market prices for food crops need to be stabilized so that the farmer is sure to sell his surplus at a profitable price. This will motivate them to diversify and intensify food crop production. Concurrently, institutions to cater for farmers’ needs should be set up and farmers should be informed about the existence of such institutions so that they can benefit from them. Micro- finance institutions to lend money to farmers should be set up so that farmers can borrow money and create off-farm activities for themselves to improve on their revenues and purchasing power, thereby reducing food insecurity and poverty. This strategy worked well in China in the 1980s and 1990s and today the results are incredible.
- Education in the form of capacity building should be conducted to empower the people so that they can contribute in the resolution of their problems. On the other hand youths and children should be educated and trained to become prominent productive citizens in the future. Priority should also be given to institutional development to accelerate collective action by the population.
- Public infrastructure such as roads, hospitals, schools and markets should be provided and equipped. Health care centres should incorporate teachings on childcare, better nutrition and sanitation methods. Through this morbidity and mortality due to malnutrition, under nutrition and poor sanitation conditions could reduce. Likewise, sensitisation programmes should aim at family planning methods that could attempt to reduce population growth to acceptable levels that can conveniently allow for sufficient and efficient resource allocation and utilization by all.

- Research should be strengthened with particular focus on food crops suitable for the region. New crop varieties and especially those that are drought resistant should be developed by the National research Institute (IRAD). Rural extension services should be revamped and ensure that smallholder farmers benefit from such services. Through the PNVRA (National Agricultural Extension Service), many farmers will be introduced and exposed to new agricultural and soil conservation techniques such as agro forestry to improve on soil fertility and crop yields. This approach can contribute in reducing human pressure on the natural environment.
- Irrigation facilities could be set up although water scarcity in the region is a great limitation to its development. Otherwise, it might well be an ideal option to make use of the waters from the Lagdo Dam and Benoue River to create such a scheme in the NP. Although there already exists an irrigation scheme for rice production in the ENP, there is need to expand and strengthen its functioning using waters from the Logone and Chari River and from the lake Chad Basin. Another option is the use of “Rainwater harvesting techniques”. In this technique, rainwater and runoffs is collected and stored in natural aquifers such as a rock or in artificial containers (Ngigi, 2003). This is a very useful technique that could help to solve to a greater extent, the water scarcity problems in Northern Cameroon especially during the dry seasons. In fact the terrain is quite suitable for the application of the technique.
- Given the recurrent nature of food insecurity in the region it might be more appropriate and convenient to establish a food insecurity and vulnerability mapping of the area to facilitate the transportation and timely distribution of food aid to victims.
- One of the cause mentioned in chapter four is the political orientation of the country. Apparently, food insecurity and politics are closely linked. Thus it necessitates both internal and external political measures in tackling and abolishing food insecurity. Elites have to be actively involved at all stages in seeking viable solutions to terminate the problem. Meanwhile, the populace has to be empowered to ensure their active participation and contributions in the process.
- Rural communication services, such as rural radios should be created for the dissemination of information to the populace. Through these services, Climatologists in collaboration with rural extension workers and researchers can inform local authorities and the population about the occurrence of future food crises-Famine Early Warning System. This will enable them to prepare for subsequent crisis before hand.
- Dairy farming should be encouraged. Livestock rearing is a well-known activity in this region but the cattle are reared purposely for meat consumption. Dairy farming for the local market should be encouraged to discourage consumption of imported dairy products by Cameroonians. In addition, there exist several other business opportunities in the region, but the government has to provide incentives to

both national and international investors to invest. All these could be steps to reduce the alarming unemployment rate in the region.

- Irrespective of the above recommendations, food aid should be continuously provided to the most vulnerable while at the same time trying to prepare them to be food secured in the nearest future.

Conclusion

It can be admitted that food insecurity in Northern Cameroon is unquestionable. While accusing natural conditions as the major culprit, economic, socio-cultural and political factors should not be underestimated, as they appear to be the most significant. Emphasis should be laid on contributing factors such as the quantity of land cropped, the use of fertilizers, the literacy level of the farmers and the agricultural techniques used. Tackling these causes that are directly linked to poverty is very crucial in reverting the situation. However, ensuring local food production can be a logical short-term solution to the problem. Immediate action should be taken in order to minimize the effects of food insecurity on natural resources depletion and environmental deterioration in the region.

Actually, if Cameroon has to escape the hunger trap, a new agricultural development paradigm has to be sought with special attention given to the Northern region. State intervention should be a prerequisite, especially in providing financial assistance to farmers, and this should be accompanied by equity and fairness. Concurrently, the government needs to ensure the stabilization of market prices of food crops to encourage farmers to intensify and diversify food crop production. It should be an immediate concern for the government in particular to safeguard food supply at the rural levels. Not because famine is inexistent in urban areas but because the rural populace is the most impoverished and vulnerable. Apart from the government, elites need to contribute immensely to improve on the livelihood of their electorates. Famine is a political issue and it is quite factual that if famine is politicised in Northern Cameroon, the outcome will be very successful given the fact that this region has the highest population - when it comes to voting. Thus, it should be the urge of everyone capable to act accordingly. Likewise, community members need to collaborate and work closely with the elites, government and international organizations while paying much attention to local realities. Indeed, now is the time to act rather than wait for the moment when more people will be affected.

It is evident that several policies have been formulated in the past, but there have been no major positive feedbacks as of now. Is it the implementation that is problematic, that is, insufficient logistics, incompetent human resources to accomplish the tasks, too much influence from the central system on the implementers at the local levels or is it negligence at the level of local authorities? There is need to investigate into these aspects in the future because the major threat lies at the policy level and unless the right policies are formulated and implemented effectively then combating food insecurity in Northern Cameroon will remain illusionary.

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APPENDICES

Questionnaire

1. What are the causes of food insecurity in the Northern region?
 - a. Natural (droughts, floods, destruction by predators such as elephants and migratory birds etc)
 - b. Socio-cultural (lack of infrastructure, customs, land tenure system, high demography, poverty etc.)
 - c. Economic (lack of farm credit, poverty etc.)
 - d. Others
2. Which ones are specific to the Northern province?
3. Among these, which are the most important?
4. Why?
5. Which category of persons is most vulnerable to food insecurity? Why?
 - a. Children
 - b. The old
 - c. The handicaps
 - d. Foreigners
 - e. Others
6. When did this problem of food insecurity begin in the Northern region?
7. Is food insecurity a temporary or permanent issue in the North province?
8. Who are the different actors that have intervened in mitigating the problem in one-way or the other?
 - a. The government
 - b. Donors (International and National)
 - c. The communities
 - d. The elites
9. What is the role-played by each actor?
10. How can you evaluate the results so far achieved by each actor?
11. According to you, what are the different strategies that should be put in place to resolve the problem?
12. Which actors should intervene?
 - a. The government
 - b. Donors
 - c. Communities
 - d. Elites
 - e. Everyone
13. What do you understand by “food for progress”?
14. What do you think about it as a new strategy to combat food insecurity in the Northern region in general and the North province in particular?
15. What comparison can you make between this strategy and others such as food for work and food aid?

16. Please do you have other comments to make with respect to this subject?

Data on changes in precipitation levels in the NP and ENP

Year	ENP rainfall (mm)	NP Rainfall (mm)
1987/88	592.5	-
88/89	839.6	-
89/90	862.0	-
90/91	611.2	-
91/92	836.9	-
92/93	750.1	-
93/94	-	-
94/95	934.5	-
95/96	-	-
96/97	750.6	-
97/98	768.9	1277
98/99	785	1094
99/00	769	1264.2
00/01	803	1008.1
01/02	-	955.48

Sources: MINEFI/MINAGRI: Cameroon in figures 2002, MINAGRI/UNDP: Regional socio-economic studies of Cameroon, 2000. North provincial delegation of agriculture, 2003.