



# CAMEROON FOOD SECURITY AND NUTRITION **STRATEGIC REVIEW:** << ZERO HUNGER BY 2030 >>











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AUGUST 2016





# CAMEROON FOOD SECURITY AND NUTRITION STRATEGIC REVIEW: << ZERO HUNGER BY 2030 >>

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#### PREFACE

In September 2015, the United Nations adopted the Sustainable Development Goals (SDGs) with a view to ending poverty, protecting the planet and ensuring prosperity for all. The second of these SDGs is to end hunger and improve nutrition. To this end, the member countries have undertaken to achieve food security for their populations, improve their nutritional status and promote sustainable development.

Through its 2035 vision, the government is working to make Cameroon a democratic, peaceful and prosperous emerging country, united in its diversity, and ensure optimal nutrition for its population. Agriculture is expected to play a key role in the realization of this vision through the creation of jobs and wealth. Cameroon's commitment to develop its agricultural sector was reaffirmed with the signing, in 2013, of the Comprehensive Africa Agriculture Development Programme (CAADP) and, in 2014, of the National Agricultural Investment Plan (PNIA).

Huge progress has been made in Cameroon in the fight against hunger, with the share of the population living in hunger falling from 38.8% in 2000 to 15.4% in 2014. Thus, the country has exceeded the target set in the Millennium Development Goals (MDGs) of reducing the proportion of the population living in hunger by half between 2000 and 2015. This achievement has been acknowledged and commended by the FAO.

Overall, the availability of food in Cameroon is sufficient. However, 9.6% of the population are food insecure and there are regional disparities. According to findings of the Emergency Food Security Assessment (EFSA), the Far North Region is seriously affected with 35.5% food insecurity, followed by the Adamawa Region with 18.7% and the North Region with 10.0%. It should be pointed out the high food insecurity in the Far North Region is exacerbated by the cross-border conflicts waged by the Boko Haram sect, which have led to a large influx of Nigerian refugees and internally displaced persons. Meanwhile, the level of food insecurity observed in the following regions is relatively low: Centre (3.0%), Littoral (4.4%), Northwest (2.0%) and Southwest (0.7).

Malnutrition is a national problem, even in the regions with low food insecurity levels. According to the demographic and health survey (DHS) (MICS 2011, 2014), in Cameroon, 31% of children under the age of five years suffer from growth retardation, 15% are underweight and 5% suffer from emaciation. Fortification, including biofortification, of products of mass consumption, improvement of access to drinking water and improvement of sanitary conditions would contribute to better results with regard to nutrition. In the long term, sustainable nutrition education could help significantly reduce the percentage of malnourished people in Cameroon, especially among under-fives.

This review is based on a considerable amount of information gathered through stakeholder interviews and regional consultations as well as steering committees made up of representatives of sectorial ministries involved in matters of food security and nutrition, specialized agencies of the United Nations, development partners, NGOs and civil society, who also actively participated in the regional consultations.

The strategic review identified constraints that pose obstacles to achievement of the zero hunger goal. It also highlighted the progress made, identified gaps and shortcomings, and made recommendations with a view to achieving zero hunger. Priority actions resulting from the strategic focuses were identified, as were the stakeholders involved. However, it was not possible to quantify the financial resources required to implement the priority actions identified.

There is clearly a need to develop food security and nutrition strategies in Cameroon. The food security strategy will make it possible to establish a modern and more productive agricultural sector, and ensure coherence between the different programmes in this area. The nutrition strategy will make it possible to enhance the effectiveness of the multi-sectorial platform to eradicate malnutrition in the country, while strengthening the existing coordination mechanisms.

The government acknowledges the priority actions identified and welcomes the useful recommendations of this strategic review of food security and nutrition in Cameroon. Implementation of those recommendations in partnership with the private sector, development partners, NGOs and civil society, with strong participation of producer organizations and local communities, will contribute significantly to achievement of Sustainable Development Goal No. 2: zero hunger.

Therefore, I invite and urge all the stakeholders in the agricultural, food security and nutrition sectors to join the national effort to achieve the goal of zero hunger in Cameroon by 2030.

The Prime Minister

#### ACKNOWLEDGEMENTS

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Cameroon's commitment to improve food security and eliminate hunger was reinforced by the signing, in 2013, of the Comprehensive Africa Agriculture Development Programme (CAADP) and, in 2014, the National Agricultural Investment Plan (PNIA). Within the framework of the Sustainable Development Goals set by the United Nations, the WFP, in conjunction with the government, undertook the Strategic Review of Food Security and Nutrition with a view to achieving the goal of zero hunger by 2030. This review could not have been carried out without the participation and collaboration of several stakeholders.

Our particular appreciation goes to the review coordination team, namely: Mr Guy Noel Nguemaleu, Deputy Director of International Cooperation at the Ministry of the Economy, Planning and Regional Development (MINEPAT), Mr Foudama, former Coordinator of the National Food Security Programme (NFSP) at the Ministry of Agriculture and Rural Development (MINADER), Ms Jeanine Nkodo Atanga, new Coordinator of the NFSP at MINADER, and Mr Georges Okala, Deputy Director of Food and Nutrition at the Ministry of Public Health (MINSTANTE). Thanks to their support, the research team was able to access official documentation and make contact with other representatives and senior figures from the ministries concerned.

This review also benefited from contributions from members of the steering committee made up of representatives of the Ministry of the Economy, Planning and Regional Development, Ministry of Agriculture and Rural Development, Ministry of Public Health, Ministry of Basic Education and Ministry of Territorial Administration and Decentralization as well as the National Institute of Statistics, UNICEF, FAO, WFP and the NGO ODECO. This committee met regularly to follow up the review work and the contributions of its members enhanced the quality of the final report.

Consultation of actors at the regional level provided information about the programmes and projects implemented in the area of food security and nutrition. The participation of regional governors, prefects, sub-prefects, mayors and other officials, NGOs, civil society organizations, universities and the private sector was greatly appreciated. The participation of cooperatives and groups of producers and farmers also made it possible to ascertain the realities on the ground, which influenced the conclusions and recommendations of this review. The success of the regional consultations was thanks to a dynamic team made up of Mr Ibraima Hamadou, National Programme Officer for the WFP, and Ms Jeanne Alvine Pom and Ms Elisabeth Mongo from the Ministry of the Economy, Planning and Regional Development (MINEPAT).

The technical, administrative and logistical support of the WFP in organizing the regional consultations in the five main towns was valuable. We thank Ms Elvira Pruscini, WFP Deputy Country Director, Dr Aliou Diongue, Emergency Operations Coordinator and Mr Francis Njilie, VAM Expert, for that support. In addition, the research team extends its profound gratitude to Mr Ibraima Hamadou Aminou, National Programme Officer, Ms Esther Tchouassi, Mr Elvis Ashu and the WFP drivers made available to the research team in the course of the review.

An overview of the review was provided by the team at the WFP headquarters: Mr Chris Toe, Ms Diane Yameogo and Ms Natasha Nadazdin, WFP Regional Programme Advisor for West and Central Africa, while Mr Abdoulaye Balde and Mr Felix Gomez, the current and former Resident Representatives of the WFP Cameroon, respectively, assisted greatly with completion of the review.

Special thanks to the research team led by Dr Fondo Sikod, Emeritus Professor in Economics at the University of Yaoundé II-Soa, Dr Ibrahim Abba, Economist and Technical Advisor to the Minister of Employment and Vocational Training, Dr David Essoh, Agricultural Economist and Expert in Food Security and Monitoring & Evaluation, Ms Eret Ayamba, Nutritionist and Dr A Namanga Ngongi, former Deputy Executive Director of the WFP and former President of the Alliance for a Green Revolution in Africa (AGRA), the Senior Expert responsible for the general supervision of the review. The above-mentioned actors are entirely responsible for the content of this review.

Finally, this strategic review of food security and nutrition in Cameroon would not have been possible without the financial support of the WFP.

#### **EXECUTIVE SUMMARY**

#### **1. INTRODUCTION**

One of the priorities of the United Nations in its 2030 Agenda is achievement of Sustainable Development Goal (SDG) No. 2: zero hunger. This SDG recommends that member countries implement programmes and strategies with a view to ensuring food security, improving nutrition and promoting sustainable agriculture. With that in mind, in April 2016, the World Food Programme (WFP) in conjunction with the government began the strategic review of food security and nutrition in Cameroon. This review was conducted during the period April-August 2016.

#### The main objective of the review is to identify the challenges to be overcome in order to achieve the "zero hunger" goal in Cameroon by 2030. More specifically, it:

- Presents the food security and nutrition situation in Cameroon;
- ✓ Identifies actions and gaps in relation to food security and nutrition in Cameroon;
- Provides recommendations and priority actions to implement with a view to achieving the "zero hunger" goal by 2030 in Cameroon.

The review was carried out by a research team under the supervision of a Senior Expert. The first stage of the review consisted of gathering information about aspects of food security and nutrition, while the second stage consisted of conducting regional consultations in the East, South, North, Far North and Northwest Regions. In addition, discussions were held with certain key national actors and agencies of the United Nations system.

#### 2. Diagnosis of the food security and nutrition situation in Cameroon

In Cameroon, about 15.4% of the population suffer from hunger (INS 2015). In terms of the prevalence of food insecurity, it is important to note the regional disparities that must he mentioned. The Sudano-Sahelian regions, particularly the Far North and the North, are strongly affected by the phenomenon compared to the forest regions (East and South) and the highlands (North-West, South-West and West). According to the Comprehensive Food Security Assessment (CFSVA 2011), 9.6% of rural households are food insecure (2.2% severe and 7.4% moderate).

In the Far North and North, respectively, 17.9% and 15.4% of households are food insecure.

These rates are certainly higher during the lean period. In the Northwest region, the proportion is 2%.

Food insecurity has significantly increased over the past four years in the northern regions.

According to the Emergency Food Security Assessment (EFSA 2015), about 19% of households are food insecure, of which 2% are severely food insecure in all four regions (East, Adamaoua, North, Extreme-North).

Individually, in the Far North, 35.5% of the population are food insecure, 18.7% in Adamaoua, 10.6% in the North and 8% in the East. Which in overall, puts Cameroon in the category of countries with persistent

food insecurity, with a score of 24.2 according the Global Hunger Index (IFPRI, 2015)

In terms of nutrition, there is a high level of stunting in the country. To this end, the results of the MICS survey (2014) show that in Cameroon, more than 31% of children under 5 suffer from stunting, of which 12.9% are severe. In addition, 5.2% suffer from acute global malnutrition and about 15% suffer from underweight. This ranks the country, according to the HANCI<sup>1</sup> index, 29th out of the 45 countries.

In terms of food security, there is a marked increase in food availability in Cameroon. This is above the FAO threshold of 2400 kcal /person/day. Also, 75% of the cereal production available in Cameroon are produced locally and 25% comes from imports. Fish production accounts for 50% of national consumption.

In addition, while there has been a growing trend in food supply in Cameroon, there is, however, a marked rising trend in the prices of these products during the same period. This led to social unrest in 2008, known as "riots of hunger" in Cameroon. Measures taken by public authorities have, however allowed to mitigate the effects. In view of the above, the following major constraints have been identified

(1) Concerning the constraints linked to food availability, it should be noted that cultivation techniques have barely been modernized, with insufficient use of new technologies (improved seeds, fertilisers, modern equipment). However, the opening of a tractor assembly plant in Ebolowa in 2010 is expected to lead to increased modernization of Cameroon's agricultural sector. It should also be noted that smallscale family farmers (SFFs) do not make use of the results published by research institutes (IRAD). Limited access to land (66% under customary management) and financing (only 4.4% of SFFs have access) constitute one of the main constraints.

(2) Regarding the constraints of food accessibility, we note the difficulty of accessing the market due to the isolated nature of the production areas and the low purchasing power of households due to poverty. According to the results of the fourth National Household Survey (ECAM4), the number of poor households in Cameroon rose from 7.1 million in 2007 to more than 8.1 million in 2014

As regards the constraint linked to food stability, post-harvest losses account for more than 25% of agricultural production (FAOSTAT, 2015) due to the lack of infrastructure for the storage and conservation of foodstuffs. Indeed, in the regions at high risk of food insecurity, such as the northern region, only the Cereals Board has a storage system with a capacity of 50,000 tonnes. However, said system is significantly underused, with less than 9,000 tonnes of cereals being stored in it. We also note the existence of village granaries set up in some places, with the support of the WFP.

(3) Concerning the constraint linked to the utilization of food products, it should be highlighted that people are not aware of food values or the nutritional needs of certain vulnerable sectors of the population, such as pregnant or nursing women and children aged under five years. This situation is largely explained by the high rate of illiteracy among Cameroonian women, who are usually responsible for feeding families.

<sup>1</sup> The HANCI index measures the commitment of governments in the fight against hunger and malnutrition. To this end, it compares the performance of 45 developing countries on 22 indicators of political commitment to reduce hunger and malnutrition

#### 3. Review of food security and nutrition policies, strategies and programmes implemented in Cameroon

(a) With regard to policies and strategies, the course has been set by the 2035 Vision document, with the GESP providing the strategic framework for the actions of the government, with the aim of making Cameroon a democratic emerging country, united in its diversity. To this end, several strategies for food security and nutrition have been implemented.

In the area of agriculture and rural development, the strategy aims to "strengthen Cameroon's role as a subregional agricultural power, where the rural sector is an engine of the national economy, ensuring the food security of the within a population framework of sustainable development that is respectful of the environment".

In the livestock, fisheries and animal industries sector, the strategy aims to increase pastoral and fish production with a view not only to meeting the nutritional needs of the population and the raw material needs of agro-industry, but also to generating surpluses for export.

In the area of nutrition, the strategy of the public authorities aims to guarantee the population of Cameroon in general, and vulnerable groups in particular, an optimal nutritional status, supporting their intellectual, physical and psychological capacities to lead an active and productive

life. In addition, it aims to contribute to reducing maternal and child morbidity and mortality rates.

(b) Concerning food security programmes, it should be highlighted that more than 60 programmes2 and projects have been identified, including the government's flagship National Food Security Programme (NFSP).

The NFSP was set up in 2009 with the objective of fighting hunger and food insecurity, in order to substantially reduce the number of hungry people, particularly in vulnerable households in rural and periurban areas, by 2015. This will be achieved by increasing crop, pastoral and fish production in Cameroon, among other measures. Since its introduction, the NFSP has targeted more than 366,600 households, reaching a total of 2.2 million individual beneficiaries (NFSP report 2014).

In the budget allocated to the NFSP, 65.9% of the funds are assigned to the food availability pillar, 24.2% to access, 8.2% to stability and 1.7% to utilization.

The NFSP has a funding shortfall of more than 42.5% compared with its initial budget.

#### 4. Food security and nutrition challenges in Cameroon

The challenges identified are regulatory and institutional on the one hand, and operational on the other.

In terms of the regulatory and (a) institutional challenges, it should be noted that no activity in the general interest can flourish without normative, regulatory or institutional codification. In this respect, a major challenge would be the adoption of a framework act on agriculture in Cameroon.

On the regulatory front, it will be (b) essential to have legislation to frame and rationalize the various food security programmes and projects in Cameroon;

<sup>2</sup> See appendix.

(c) The other challenge is to monitor programmes that promote food security and nutrition. To this end, it is necessary to hold regular coordination sessions with a view to ensuring the coherence and coordination of said programmes;

(d) The challenge in relation to the regular, periodic production of agricultural statistics in Cameroon is clear as no policy can be effectively implemented without statistical data on agriculture. It is important to note that the reference information for agriculture dates back to 1984;

(e) With regard to nutrition, the main challenge is the long-term commitment of the government to fight malnutrition through its membership of the SUN (Scaling Up Nutrition) Movement. SUN's aims include:

- Contribute to the reduction of undernutrition;

- Increase the production and consumption of safe foods of high nutritional value, including in the ecological zones most vulnerable to natural disasters (drought, flooding, locust invasions, etc.), in order to ensure sustainable food security for the Cameroonian population by 2035;

- Ensure the implementation of a sustainable system for the coordination of food and nutrition actions carried out in the different sectors and at different levels;

- Ensure the integration of food and nutrition considerations in development plans and programmes, including the allocation of significant resources at all levels;

- Set up specific nutrition interventions;

- Strengthen partnerships.

(f) The challenges within the food security and nutrition pillars include:

- Improve fish production, which remains insufficient given the country's import dependency ratio (IDR = 63%);

- With regard to accessibility, emphasis must be placed on improving access to and from production areas;

- In terms of stability, the challenge will be to establish a system for the storage of public and private foodstuffs. Hence, there is also a challenge of processing food products;

- Concerning the utilization of food to achieve average consumption of 2,400 kcal/cap/day, a major challenge is supporting demand through more effective targeting of poor households by means of social safety nets.

(g) Regional food security and nutrition challenges:

- In the regions where there is a high risk of food insecurity, such as the North, Far North and East Regions, the challenges include increasing and diversifying the production of foodstuffs (1); the regulation of informal exports of food products to neighbouring countries (2); the promotion and popularization of agricultural mechanization (3); the use of dams (4); the promotion of women's education (5);

- In regions where there is a low level of food insecurity, the challenges are to improve access to production areas (1); improve the storage and processing of food products (2); promote communication in relation to food security and nutrition programmes and initiatives (3); and provide nutrition education (4).

## 5. Lessons learned from the review of the goal of Zero Hunger in Cameroon by 2030

a) Overall, the national supply of food products is sufficient to cover the needs of the population; however, major problems result from huge post-harvest losses and insufficient measures to support demand of

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b) Malnutrition is a national problem.

c) There needs to be a legal framework to govern food security. A corollary to this is

the large number of government programmes and actors involved, raising the problem of coordination and coherence in the implementation of those programmes.

d) Mobilization of financial resources dedicated to the agricultural sector is inadequate. Despite the government's efforts, the share of the national budget allocated to agriculture is still well short of the target of 10% set in the Maputo Declaration (2003) and reaffirmed by the Malabo Declaration (2014).

e) The digital economy is an indispensable tool for the modernization of agriculture in Cameroon.

f) The existence of areas exposed to climate-related risks and insecurity linked to the influx of refugees from neighbouring countries requires the establishment of an appropriate warning and response structure.



#### 6. Recommendations on priority actions and focus to achieve the goal of Zero Hunger in Cameroon

In order to enable Cameroon to achieve the zero hunger goal by 2030, several strategic focuses have been identified, namely:

- The promotion of diversified, sustainable agriculture (1);
- The promotion and spread of nutrition education (2);
- Targeting rural and poor households by means of social safety nets (3);
- Inclusive agricultural financing (4);
- The spread and promotion of the digital economy in the agricultural sector (5);
- Increasing mechanization and the use of technological innovations in the agricultural sector (6);
- The protection of agricultural land (7);
- The mobilization of resources to increase investment in the agricultural sector (8);
- Adaptation of areas sensitive to climate change (9);
- Organizing small-scale family farmers (SFFs) in association with producers and farmer clubs by agro-ecological zone (10);
- Stepping up the development of specific competencies in the field of agriculture (11);
- Continuation of the School Feeding Programme and targeting of priority education zones through the establishment of school canteens that use locally produced food (12).

#### **GENERAL INTRODUCTION**

#### 1. Context and justification

According to the Global Hunger Index (IFPRI, 2015), which measures the persistence and severity of hunger around the world, Cameroon is ranked sixty-eighth of the 117 countries assessed. Between 1990 and 2015, Cameroon's GHI fell from 39.8 to 24.2. Over the same period, progress made in the fight against hunger substantially reduced the proportion of the population suffering from hunger. However, it should be noted that 15.4% of the Cameroonian population is still suffering from hunger3.

Furthermore, although the overall food security situation is improving, it should be pointed out that there are huge regional disparities. Indeed, four of the country's ten regions are face persistent food insecurity. Food insecurity is greater in rural settings than in urban areas.

The CFSVA and EFSA surveys carried out in 2011 and 2015, respectively, show a rise in the percentage of food insecure households in the Far North and Adamawa Regions, rising from 17.8% to 35.5% in the Far North and from 7.1% to 18.7% in Adamawa. In addition, the violence perpetrated by the Boko Haram sect has exacerbated the situation in the country's Far North Region.

Consequently, the government, with the technical, logistical and financial support of the WFP Country Office, agreed to carry out a strategic review of food security and nutrition in Cameroon. This review should help define priority actions with a view to achieving Sustainable Development Goal (SDG) No. 2 <sup>4</sup>by 2030, namely to "End hunger, achieve food security and improved nutrition and promote sustainable agriculture". [Delete] Moreover, this approach is in keeping with the collective actions advocated in the revision of the United Nations Development Assistance Framework (UNDAF) for the 2018-2020 period with one of the pillars that emphasizes food security.

The results of the strategic review of food security and nutrition will inform all the stakeholders of Cameroon's priorities in this area. This review aims to identify the challenges to be overcome at the national level in order to achieve zero hunger.

#### 2. Objectives

The main objective of the review is to identify the actions to take with a view to achieving zero hunger in Cameroon. More specifically, the aim is to: - Provide a thorough understanding of the national food security and nutrition context;

<sup>3</sup> The progress made by the government was acknowledged and rewarded in 2014 by the Food and Agriculture Organization of the United Nations (FAO) and enabled the country to comfortably achieve target 1.C of the MDGs as 19.4% would have represented a reduction by half of the proportion of people suffering from hunger in Cameroon.

<sup>4</sup> Sustainable Development Goals (SDG)

- Review the policies, strategies, plans and programmes implemented nationally, with a view to identifying their shortcomings;

- Determine the target groups to be taken into account at the national or regional level in order to facilitate progress towards achieving the goal of zero hunger;

- Identify the actions to take to overcome the shortcomings identified and speed up

#### 3. Methodology

#### 3.1 Description

This methodological approach combines a document review, the consultation of national actors (professional bodies, NGOs, civil society, etc.) and discussions groups with the participation of

#### 3.2. Data sources

Both primary and secondary data are used.

The primary data were obtained from the regional consultations of actors in the food security and nutrition chain.

#### 4. Expected results

The results of the review should, among other things, make it possible to:

- Present a clearer understanding of the national food security and nutrition context;

- Highlight national initiatives in terms of policies, strategies and programmes relating to food security and nutrition and identify their shortcomings;

- Determine the target groups to be included at the national or regional level in order to facilitate progress towards zero hunger; achievement of the zero hunger goal, placing emphasis on how those actions should be implemented;

- Propose recommended actions to the technical and financial partners (TFPs), particularly the WFP, focusing on the priority areas identified in the review

universities, key resource people, and so on, primarily based on the thematic approach. In addition, the study uses descriptive statistics for analysis purposes.

Meanwhile, the secondary data are from institutions such as the INS, FAOSTAT, IRAD, IFPRI and the ministries involved in food security and nutrition.

- Identify and prioritize the actions to take to overcome the shortcomings identified and speed up achievement of the zero hunger goal, placing emphasis on how those actions will be implemented;

- Propose a roadmap or a national action plan with a view to achieving the zero hunger goal;

- Propose recommended actions to the TFPs, focusing on areas with high potential to achieve the goal of zero hunger in Cameroon.

#### 5. Structure of the review

The review is structured into four chapters, following the established order: (1) Assessment of the food security and nutrition situation, (2) Review of food security and nutrition policies and programmes, (3) Food security and nutrition challenges to be overcome and complementary actions, (4) identification of strategic focuses and priority actions in relation to food security and nutrition.



Since the implementation of the GESP, the general level of prices has been kept below 3%, despite the multiple exogenous shocks.

## CHAPTER I: ASSESSMENT OF THE FOOD SECURITY AND NUTRITION SITUATION

#### INTRODUCTION

The objective of this chapter is to present the current food security and nutrition situation in Cameroon. The chapter identifies food and nutrition issues and outlines the geographical situation (I.1), the macroeconomic framework (I.2), the socio-demographic situation (I.3) and the politico-administrative situation (I.4).

#### I.1 GEOGRAPHICAL, ECONOMIC, DEMOGRAPHIC AND POLITICO-ADMINISTRATIVE SITUATION OF CAMEROON

#### I.1.1 GEOGRAPHICAL SITUATION

#### I.1.1.1 Brief presentation of Cameroon

Located in Middle Africa, on the Gulf of Guinea, Cameroon is considered a miniature Africa due to its cultural, geographical and economic diversity. The country covers an area of approximately 475,000 km<sup>2</sup> and is brimming with agro-ecological potential, some of the characteristics of which are described in Graph 1, below.

#### I.1.1.2 Agro-ecological diversity

As shown in the graph below, Cameroon is characterized by five main agro-ecological zones, namely: the Sudano-Sahelian zone, the high savannah, the highlands, the coastal and maritime zones and the tropical forests.

The *Sudano-Sahelian zone* encompasses the Mandara Mountains, the plains of the Far North and the Bénoué Valley. It is characterized by its fragile ecosystem linked to the dryness and erosion of the soil. It offers considerable potential for social forestry and agroforestry wood production, which help meet the local population's need for fuel wood, a source of energy. This zone contains protected areas, which are often vulnerable to poaching.

The *high savannah zone* encompasses the high-altitude savannah of the

Adamawa, Centre and East Regions, as well as the Tikar Plain. This zone has bimodal rainfall in the Centre and East Regions, and monomodal rainfall elsewhere. It is well suited to pastoral activities, particularly cattle farming, which accounts for 40% of national cattle numbers.

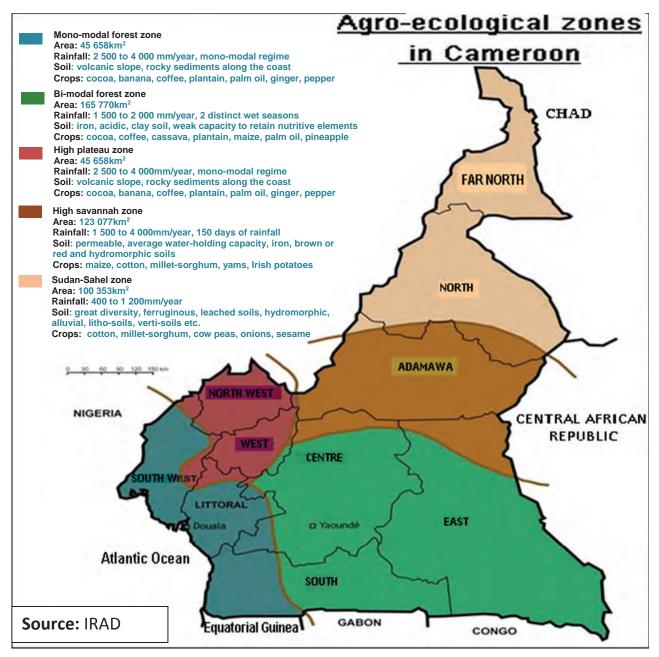
The western *highlands zone*, which covers the country's West and Northwest Regions, accounts for approximately 86% of the fertile land favourable for farming. Intensive agriculture is practised there. Cattle farming accounts for approximately 14% of national cattle numbers.

The *coastal and maritime zone* is marked by the intensity of industrial activities, with almost 53% of (cultivable land being farmed, 60% of which is given over to industrial plantations of palm oil, rubber and bananas. Moreover, the pollution caused by industrial production and mangrove deforestation has a harmful effect on fish resources.

The *tropical forests zone* includes the degraded forests of the Centre and Littoral Regions, as well as the rainforests of the

South, Southwest and East Regions. Its climate lends itself to the development of agriculture. However, the zone faces certain constraints, including the difficulty of stabilizing agricultural production systems, and the isolation and remoteness of the production areas which results in higher transportation costs.

#### Graph 1: Agro-ecological zones in Cameroon



#### I.1.2 MACROECONOMIC SITUATION

To offer a clearer picture of the macroeconomic environment, the development of which impacts food

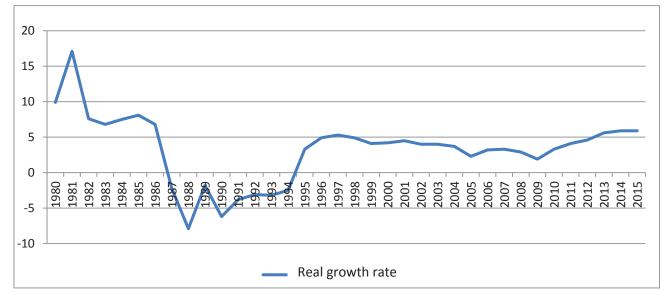
#### I.1.2.1 Economic growth

After the 1960s, Cameroon's economy recorded growth rates in the region of 8%. However, the 1980s, numerous in exogenous and endogenous shocks, particularly the decline in export commodity prices, plunged the country into an unprecedented economic crisis. Consequently, the growth rate plummeted to its lowest recorded level of -7.9%. This fall led to a reduction in the competitiveness of the Cameroonian economy, a drop in state revenue and the deterioration of the living conditions of the population.

To alleviate the above-mentioned effects, Cameroon implemented a number of international initiatives such as a structural adjustment programme (SAP) and the security and nutrition in Cameroon, certain economic aggregates are analysed below.

Heavily Indebted Poor Countries (HIPC) Initiative. This led to the drafting of its Poverty Reduction Strategy Paper (PRSP), which was revised in 2009 and renamed the Growth and Employment Strategy Paper (GESP) for the 2010-2020 period.

It should be noted that the objectives of the GESP have borne fruit. According to the estimates of the International Monetary Fund (IMF, 2016), below, Cameroon's growth rate rose from 3.3% in 2010 to 5.9% in 2015, despite the fall in international oil prices and the security situation affecting the north and east of the country. This upward trend in economic growth is being driven by the key economic sectors.



Graph 2: Real economic growth in Cameroon between 1980 and 2015

Source: The authors, based on IMF data (2016)

#### I.1.2.2 GDP growth by sector

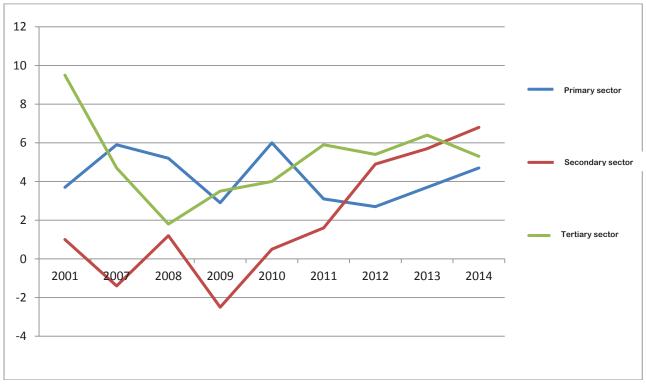
The performance of Cameroon's economy relies on the traditional primary, secondary and tertiary sectors5.

According to the results of Cameroon's national accounts for the third quarter of 2015, there has been a rise in competitiveness in the *primary sector*. Indeed, there was an increase of more than 5.3% compared with the previous quarter due to the intensification of agricultural production.

Concerning the *secondary sector*, which is mainly dominated by Construction and Public Works and the extractive industries, which account for 13.2% and 27.8% of growth, respectively. This sector contributes significantly to the performance of the Cameroonian economy. In the last quarter of 2015, there was growth of over 9.4% compared with the third quarter of 2014, as presented in Graph 2, above.

Finally, the *tertiary sector* enjoyed a boost in the last quarter of 2015, with a growth rate of around 9.4%, dominated by financial services (7.6%), transport (10.1%), trade and repairs (7.3%). Graph 3, below, shows the evolution of the aforementioned sectorial contribution from 2001 to 2014.





Source: The authors, based on data from the national accounts, INS

<sup>5</sup> See the annex concerning the sectoral contribution from 2001 to 2014.

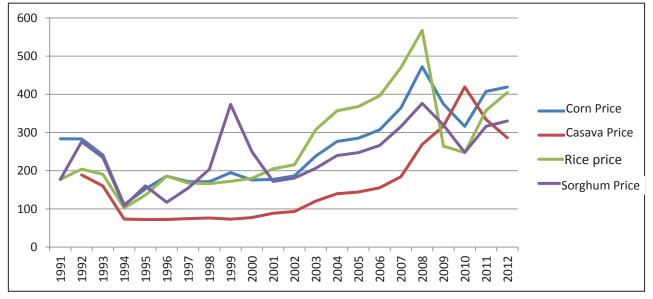
#### I.1.2.5 Changes in prices

### a) Trend in the general price level (inflation)

Since the implementation of the GESP, the authorities have been participating in maintaining the general price level below 3%6, despite the multiple external shocks to Cameroon's economy. This has influenced changes in the price of foodstuffs.

### b) Changes in the prices of the main food staples in Cameroon

Analysis of Graph 3, below, reveals that the prices of the most consumed foodstuffs like cassava, rice, maize and sorghum, rose considerably in 2008, giving rise to the "hunger riots" that year.



Graph 4: Trend in the prices of the main food staples in Cameroon (in USD)

Source: The authors, based on FAOSTAT data (2015)

In order to address the soaring prices and ensure that the population had access to food, in 2011, Cameroon launched the Mission to Regulate the Supply of Staple Food Products (MIRAP).

MIRAP should contribute to stabilizing the prices of foodstuffs by building buffer

stocks, setting up 'control warehouses' (magasins témoins), and organizing periodic markets and travelling markets where several food products are provided and sold in cooperation with the economic operators in all sectors. However, whether or not those measures will effectively curb the rise in food prices has yet to be seen.

Between 1980 and 2015, the Cameroonian population increased from 8,823 million to more than 23,100 million.

6 See the annex on changes in the inflation rate in Cameroon.

#### I.1.3. DEMOGRAPHIC SITUATION

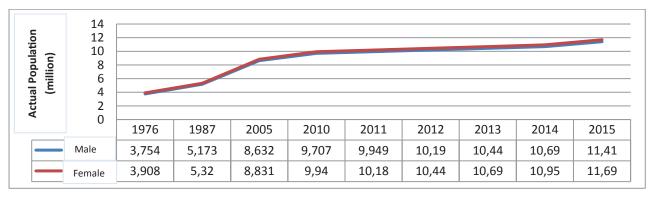
#### I.1.3.1 Overall changes in population size

According to IMF estimates (2016), Cameroon experienced strong demographic growth between 1980 and 2015, with its population rising from around 8.823 million to 23.100 million.

#### I.1.3.2 Evolution of the population by gender

According to the results of the BUCREP (2005), the balance of Cameroon's population is tilted slightly in favour of women, with 11.22 million women and

10.95 million men, which represents 50.6% women compared with 49.4% men. The graph below illustrates the changes in the male and female populations.



#### Graph 5: Evolution of Cameroon's population by gender

Source: BUCREP, IMF (2016)

#### I.1.3.3 Population structure

The 2005 general population and housing census shows that more than half of Cameroon's population is rural, with 51% of the population living in rural areas compared with 48.8% in urban areas. This constitutes a comparative advantage in terms of the population's contribution to agricultural growth. In both urban and rural

settings, the Cameroonian population is young (the average age being 22 years) and there are 94.8 men per 100 women in rural areas. In addition, young people under 15 years of age account for 47.8% of the population in rural settings compared with 39.2% in urban areas.

53% of the Cameroonian population is engaged in agriculture, 57.9% of which are women.

Density (population/km2) = 37,5% Urbanization rate = 48,8%							
Libelled		Urban (%)	Rural (%)				
Population		48,8	51,2				
Average age		22,2	22,0				
Sex ratio		100,9	94,8				
	- 15 years	39,2	47,8				
Youth rate	15-24 years	24,3	17,2				
	25-34 years	40,3	29,4				

#### Table 1: Structure of the Cameroonian population

Source: BUCREP, (RGPH, 2010), FMI (2016)

In rural areas, 75% of the Cameroonian population practices agriculture, compared to 10% in urban areas.

#### I.1.3.4 State of the agricultural population

The EESI 27 survey (2010) showed that agriculture is the sector employing the largest proportion of the working-age population. Indeed, 53% of Cameroon's overall population works in agriculture, of which 57.9% are women. Moreover, the

practice of agriculture is still essentially the preserve of the rural population. According to the EESI 2 data, in rural areas, 75% of the Cameroonian population is engaged in agriculture, compared with 10% in urban areas.

#### I.1.4. POLITICO-ADMINISTRATIVE SITUATION IN CAMEROON

Cameroon is a decentralized unitary republic. Consequently, the exercise of power is framed by both the principle of devolution of government services and decentralization.

With regard to devolution, all the government ministries have devolved departments. Each department of the ministries in charge of matters relating to food security and nutrition has representation in all parts of the country.

Concerning decentralization, there have been significant developments in the transfer of certain powers and in the resources allocated to the Decentralized Territorial Authorities (CTDs).

Regarding health matters, application of the Framework Law on Decentralization of 22 July 2004 [2] made it possible to transfer to local authorities, activities related to the construction, out fitting and management of integrated health centres. Local elected

<sup>7</sup> Survey on Employment and the Informal Sector.

officials chair the management committees of the district hospitals and district medical centres, while management of the regional hospitals and central hospitals is entrusted to government delegates in urban communities. For food security, the powers and resources transferred to the municipal level aim to improve agricultural, livestock and fish production, as demonstrated by the increase in the resources transferred by the Ministry of Livestock, Fisheries and Animal Industries (Table 2).

Table 2: Change in the budget allocation transferred to the local authorities(CFA francs)

Year	2012	2013	2014	2015			
Transfer to the CTDs	1.732.200.000	1.665.400.000	2.500.000.000	2.770.000.000			
Source: PPA MINPLA (2016)							

Source: PPA, MINPIA (2016)

#### I.2 FOOD SECURITY AND NUTRITION SITUATION IN CAMEROON IN LIGHT OF THE SUSTAINABLE DEVELOPMENT GOALS (SDG No. 2)

#### I.2.1 SUSTAINABLE DEVELOPMENT GOAL (SDG) CHALLENGES

## I.2.1.1 Status of implementation of the MDGs in Cameroon through the prism of MDG1: "Eradicate extreme poverty and hunger"

Implementation of the Millennium Development Goals (MDGs) in Cameroon has addressed eight focus areas, including that of eradicating extreme poverty and hunger by 2015. Indeed, for MDG1 "Eradicate extreme poverty and hunger", evaluation of the implementation of the MDGs in Cameroon shows that the efforts made by the government brought the incidence of poverty down by around 2.7% between 2001 and 2014 (ECAM4, 2015). Yet, due to the 2.6% rise in the population growth rate, the actual number of poor people has increased in the same period, from 7.1 million to 8.1 million.

In addition, concerning reducing hunger, the proportion of the Cameroonian population suffering from hunger has decreased from 38.8% to 15.4% over the reference period of 1990 to 2015, exceeding target 1.C of the MDGs which would be equivalent to 19.4%. Thus, improvement of the national supply of food products accompanied by control of prices in the national market have increased the population's access to food. However, the results of the implementation of the other MDG focuses have been disappointing.

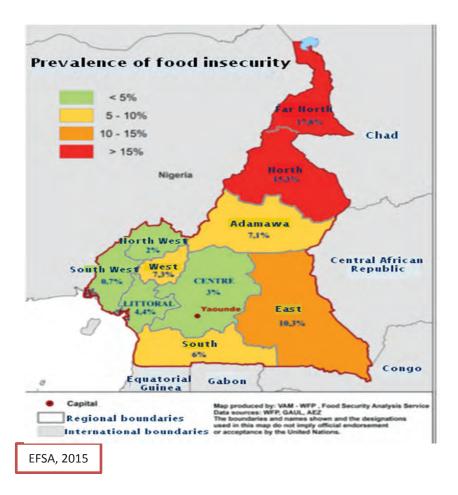
Regarding the failure to achieve the MDG targets, the new United Nations agenda to which many countries have signed up is based on improving the wellbeing of populations in a sustainable environment, and is known as the Sustainable Development Goals (SDGs).

#### I.2.1.2 Presentation of the SDGs

The new sustainable development programme aims, among other things, to end poverty, fight inequality and promote prosperity, while protecting the environment, by 2030. Therefore, it is essential to look at SDG2 more closely.



#### Graph 6: Prevalence of food insecurity



## I.2.1.3 Focus on SDG2: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture"

The SDGs are based on 17 goals, include one goal dedicated to eradicating hunger, guaranteeing food security, improving and promoting sustainable nutrition agriculture. Specifically, SDG2 aims to (i) end hunger and ensure access by all people, particularly the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round; (ii) end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of

age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons; (iii) double the agricultural productivity and the incomes of small-scale food producers, particularly indigenous peoples, women, family farmers, pastoralists and fishers, including by ensuring equal access to land, other and productive resources inputs, knowledge, financial services, markets, and opportunities for value addition and nonfarm employment.

74.37% of the quantities of cereals available in Cameroon are produced Locally while 25.81% are imported.

#### **I.2.2 FOOD SECURITY AND NUTRITION SITUATION IN CAMEROON**

#### I.2.2.1 State of food security

#### a) Definition and components of food security

According to the FAO (1996), food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. To this end, four pillars or components have been identified: (i) availability of food in sufficient quantity; (ii) stability of supply; (iii) physical and economic access to food and (iv) utilization that integrates food quality and safety considerations.

#### b) Assessment of each pillar

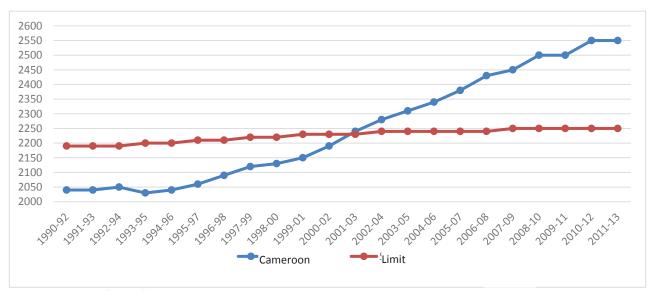
Food security is best analysed according to the four pillars, namely (1) availability, (2) access, (3) stability and (4) utilization.

#### 1. Availability

Availability is heavily dependent on food supply. According to the FAO database

(2014), there has been a marked increase in food availability in Cameroon.

## Graph 7: Changes in food availability in Cameroon compared with the average required intake (kcal/cap/day)



**Source:** FAO (2014)

20

Furthermore, 74.37% of the cereals available in Cameroon are produced locally, while 25.81% are imported. With regard to fish production, despite large fluctuations over the years, the import dependency ratio (IDR) is around 50%, which is the maximum limit for food self-sufficiency according to the criteria of the FAO. Therefore, the problem of food availability in Cameroon is not so much related to increasing production8, but rather per capita consumption9. The growth rate of agricultural production is positive (2% per year), so output is increasing. However, this growth rate is lower than the population growth rate (2.8% per year) and lower still than the urbanization growth rate (4.5% per year). This means that demand is growing faster than supply, resulting in a gradual decrease in per capita food availability.

The table below shows changes in the production of the main cereals in Cameroon. Maize is the most produced cereal in Cameroon.

Libellés	2008	2009	2010	2011	2012	2013	2014*
Maize	1.394.832	1.625.213	1.670.321	1.572.067	1.749.976	1.948.019	2.062.952
Paddy rice	72.009	123.211	153.078	174.089	181.818	189.890	201.090
Millet/Sor ghum	1.006.478	1.055.530	1.187.531	1.240.970	1.425.895	1.638.377	1.735.040
Cassava	2.882.734	2.941.367	3.808.239	4.082.903	4.287.177	4.501.671	4.600.707
Sweet potato	235.926	266.078	288.970	307.955	327.126	347.490	355.135
Potato	145.018	147.509	188.452	196.687	210.015	224.246	224.562

#### Table 3: Production of the main food crops (mt)

Source: MINADER, \*provisional data

CFSVA (2011), 9.6% of households are food insecure, 2.2% in severe form. Persistence of hunger in the Far North (35.5%); The North (18.7%); The East (8.0%), and Adamaoua (18.7%).

Despite the country's increasing food supply, there are disparities at the individual and regional levels. According to the CFSVA10 survey (2011), 9.6 % of households are food insecure, 2.2% of them severely so. This is even more marked in rural settings (7.4%) than in urban areas (6.7%).

<sup>8</sup> National production of the product groups of vegetable oils, spices, meats, offal, animal fats, eggs, milks, cereals, roots and tubers, sugar crops, dried pulses, oil seeds, vegetables, stimulants, fruits and alcoholic beverages accounts for more than 80% of total domestic availability.

<sup>9</sup> The growth rate of agricultural production is positive (2% per year), so output is increasing. However, this growth rate is lower than the population growth rate (2.8% per year) and lower still than the urbanization growth rate (4.5% per year). This means that demand is growing faster than supply, resulting in a gradual decrease in per capita food availability.

<sup>10</sup> Comprehensive Food Security and Vulnerability Analysis

Moreover, analysis of Graph 6, above, reveals the persistence of hunger in some regions of the country, like the Far North (35.5%), North (18.7%), East (8.0%) and Adamawa (18.7%).

The food insecurity observed in those regions is exacerbated by the socio-political unrest in the Central African Republic and the violence committed by Boko Haram, which has prompted population displacements. According to the EFSA survey (2015), the insecurity and lack of inputs have severely affected the practice of agriculture in the aforementioned regions and in neighbouring areas like Kodazida (Mogodé), Gorou and Kidji Matari (Waza), which have taken in displaced persons feeling the violence and fighting

Access to resources becomes limited for the host communities which must share them with the refugees, increasing the risk of weakened food security and social cohesion.

In short, despite the absence of a database of up-to-date agricultural and pastoral statistics<sup>11</sup>, it can be affirmed, based on the level of supply of local markets, that in the southern part of the country<sup>12</sup>, food production is sufficient to meet the needs of the population thanks to the availability of arable land and favourable climatic conditions. Meanwhile, the food deficit affects households in the country's northern regions and East Region.

#### 2. Access

There are two types of access to food products: physical access and economic access.

#### ✓ Physical access

Physical access to food is linked to the number of daily markets in urban areas and periodic markets in rural settings, which are generally once a week. Thus, most foodstuffs (apart from some export products such as pasta and rice, crude and refined vegetable oils, sugar and frozen fish) are supplied through rural markets by producer-sellers. Meanwhile, the majority of consumers are in the urban and semi-

#### ✓ Economic access

In Cameroon, the economic access of almost all households to food is limited by their low purchasing power and inflation;. The table in Annex 9 illustrates the effect of inflation on rising food prices in the city of urban markets.

Despite the work of the FEICOM to improve rural infrastructure, access to rural markets remains difficult during the rainy season due to the poor state of the roads connecting them, which results in higher transportation costs and, consequently, an increase in food prices.

limits Yaoundé. Inflation significantly people's access to food products in terms of both quantity and quality. In order to alleviate this situation, the public authorities have set up, in partnership with

<sup>11</sup> The last census of agriculture and livestock was carried out in 1984. 12 The Centre, Littoral, South, West, Northwest and Southwest Regions.

the World Bank, the social safety nets project to provide cash transfers to poor

households. This project is outlined in the box below.

#### Social safety nets project in Cameroon

With a view to addressing the problem of chronic poverty in Cameroon, which makes the population vulnerable to food insecurity, the government has set up the social safety nets project, in partnership with the World Bank.

Through cash transfers over a period of 24 months, this project is targeting 40,000 vulnerable households in the regions with the highest percentage of poor people. The main regions covered by the project are Far North, North, Adamawa and East. Since the project began, more than 2,000 households have received an average of 20,000 CFA francs per month to carry out income-generating activities.

Adequate storage of foodstuffs is a major concern for agricultural populations.

#### 3. Stability

In Cameroon, food stability depends heavily on the capacity to store agricultural produce. Indeed, appropriate storage of foodstuffs has long been a major concern for agricultural populations, which is why, in recent years, the Cereals Board of Cameroon and the technical and financial partners (TFPs)<sup>13</sup> have been working to design and spread the use of village storage warehouses. Furthermore, the storage system intended to stabilize the availability of food products mainly relies on two bodies: the Cereals Board for public authorities and the FAO/WFP Management Committee for the TFPs. This system has enabled the northern regions and East Region, which are exposed to the phenomenon of food insecurity, to benefit from more than 80% of the government's storage capacity.

<sup>13</sup> Japanese Cooperation (KR2), the Smallholder Development and Land Management project (DPGT), the Community Development Support Programme (PADC), the Poverty Reduction and Action in Support of Women in the Far North Project (PREPAFEN), the Special Programme for Food Security (SPFS), the Diocesan Committee for Development (CDD), the World Food Programme (WFP).

#### 4. Utilization

Utilization refers to both the way households prepare and allocate the food to which they have access and individuals' ability to absorb and metabolize nutrients. It includes the ways in which food is stored, processed and prepared, as well as the water and fuel used for cooking, and hygiene conditions. Food utilization also encompasses feeding practices, particularly for individuals with special nutritional needs, such as babies, young children, the elderly, pregnant or lactating women and sick people.

In addition, utilization concerns the sharing of food within the household and the extent to which this corresponds to the

#### I.2.2.2 State of nutrition in Cameroon

The right to food is a basic human right. However, malnutrition continues to be a major global concern, particularly among women and children. In Cameroon, malnutrition is a major concern for public health and development. Malnutrition leads to cognitive impairment, increases the risk of morbidity and mortality (59,242 children under five years of age different members' nutrition needs. Finally, it addresses the health status of each member of the household.

So, utilization refers to aspects linked to the quality and safety of food. This highlights the phenomena of quantitative undernourishment (consumption of 2,400 kcal/day) and qualitative undernourishment (sufficient consumption of calories), where certain nutrients such as proteins or vitamins are lacking in the diet.

Moreover, it emerges that the use of certain chemical inputs has a negative impact on food safety.

die each year from malnutrition-related causes) and reduces productivity, which impacts economic development (malnutrition results in an annual loss of 354 billion CFA francs for Cameroon). Meanwhile, iron-deficiency anaemia is responsible for 20% of the maternal mortality rate.





#### a) Undernutrition

#### 1) Stunting, underweight, wasting

The three mostly commonly used indicators for evaluate the nutritional status of children under five years of age are stunting or chronic malnutrition, wasting or acute malnutrition, and underweight.

In Cameroon, there has been an increase in the prevalence of these three types of malnutrition over the last two decades, with levels stabilizing during the period from 2006 to 2014. The prevalence of stunting has risen from 24.4% (1991) to 31.7% (2014). At the regional level, 44% of chronically malnourished children in the Central African Economic and Monetary Community (CEMAC) are in Cameroon. The same trend is observed in relation to

#### ✓ Stunting in Cameroon

Stunting is found throughout Cameroon, with seven of the country's ten regions having prevalence rates in excess of 30%. Geographically, the MICS survey (2014) shows that 41.9% of under-fives living in the Far North are affected by stunting, as are 33.8% in the North, 37.8% in Adamawa and 35.8% in the East.

Stunting can lead to loss of human and economic potential. It causes serious and irreversible physical and cognitive damage including delayed motor development and impaired cognitive function. All that wasting, the prevalence of which has increased from 3.0% (1991) to 5.2% (2014), and underweight, which has risen from 13.6% (1991) to 14.8% (2014).

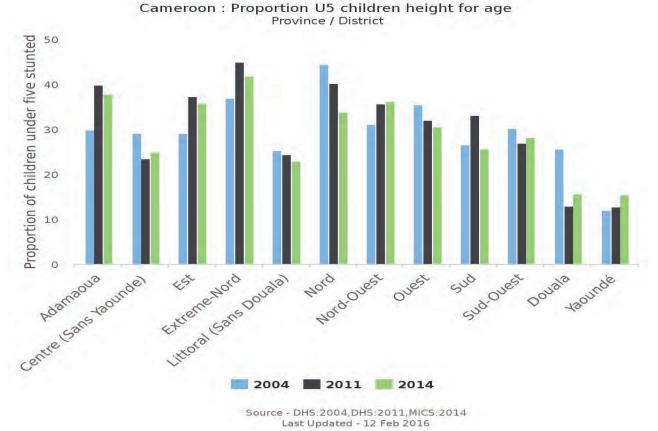
The disaggregated data on the prevalence of malnutrition show that the majority of malnourished children live in rural areas and are poor; their mothers are also malnourished and tend not to be educated. With regard to stunting: 41% of affected children live in rural areas, 49% are from the poorest households, 46% have mothers who are undernourished and 45.5% were born to mothers with no formal education (DHS/MICS 2004-2014). Graph 8, below, illustrates this further.

influences school performance in childhood and productivity in adulthood (Black et al. 2008)14. This damage occurs within the first 1,000 days of the child's live, from conception up to the age of two years.

The situation is particularly precarious in four regions: Far North, North, Adamawa and East. This is due to difficult climatic conditions that cause drought and flooding, soil infertility, a weak socio-economic situation and a low level of education of women.

Stunting is causing a loss of human and economic potential. The prevalence of stunting increased from 24.4% in (1991) to 31.7% in (2014). 44% of chronic malnourished children in CEMAC are in Cameroon

<sup>14</sup>Black R E, Allen L H, et al. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet Series 2008



#### Graph 8: Changes in the nutritional status of under-fives in Cameroon

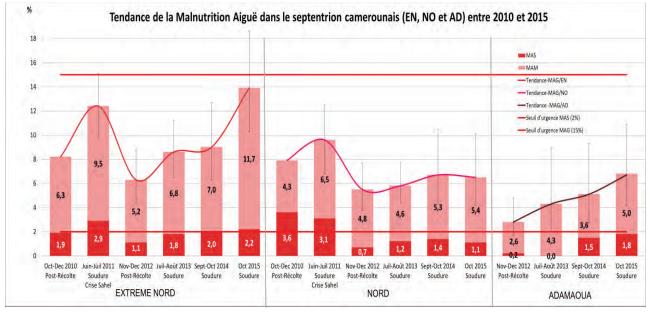
Source: DHS (2004; 2011); MICS (2014-2016)

#### Wasting or acute malnutrition

In recent years, acute malnutrition has worsened due to the influx of refugees and internal displacement resulting from the crisis in CAR (in the East and Adamawa Regions) and the unrest generated by Boko Haram in the Far North. According to the United Nations High Commissioner for Refugees (UNHCR), there are 259,145 Central Africa refugees in the East Region and 64,938 Nigerian refugees in the Far North. These crises have led to the internal displacement of 190,591 people (UNHCR, April 2016). The prevalence of acute malnutrition in these regions is markedly higher than in other regions, particularly in the Far North Region, which is already on alert.



Graph 9: Change in the prevalence of acute malnutrition in the high-risk regions



Source: SMART surveys 2010-2015

Inadequate food intake; Infectious diseases; Food insecurity; Poor access to care for the mother; Poor access to water and sanitation, Poverty; Low education and vulnerability are the causes of child malnutrition

#### ✓ Causes of child malnutrition

There a many causes of malnutrition. The immediate causes include qualitative and quantitative inadequacy of food intake and diseases (malaria, acute respiratory infections, measles, etc.), which are the consequence, among other things, of household food insecurity, poor infant and young child feeding practices, insufficient provision of basic healthcare and sanitation, and insufficient access to drinking water.

#### - Inadequate food intake

Children are not fed adequately from birth up to two years of age. Indeed, data from several surveys show that a very high proportion of children are not properly breastfed in the first six months of life or do not receive supplementary food between six and 23 months. Since 2004, the level of exclusive breastfeeding has remained stable in Cameroon, rising slightly from 24% in 2004 to 28% in 2014. With regard to supplementary feeding in Cameroon, among children aged between six and 23 months, only 9% have an acceptable diet. terms of diet, particularly In the consumption of micronutrient-rich foods and energy intake, one child in three aged six to 23 months consumes foods from fewer than four food groups and half of children are fed the minimum required number of times per day.

These feeding practices result from numerous factors, including beliefs, culture and customs, as well as a lack of awareness of the specific nutritional needs of children and women. Added to that are other factors such as women's workload which reduces the time allocated to feeding and caring for children, control of resources by men resulting in resource allocations which do not always meet the needs of children and women, and the poverty of some households.

#### - Infectious diseases

Infectious diseases can be a cause and/or consequence of malnutrition. Indeed, diarrhoea, malaria and acute respiratory infections are very common among Cameroonian children, making them more vulnerable to malnutrition and other nutritional deficiencies. Among pregnant women, in addition to anaemia, malaria can cause delayed foetal growth and a low infant birth weight.

#### - Food insecurity

The results of the Emergency Food Security Assessment carried out in 2015 in some departments of the Far North Region showed that 22.3% of the households surveyed are food insecure. Severely food insecure households have a diet composed essentially of cereals (six days out of seven) and leafy vegetables (five days out of seven) (EFSA, 2015).

#### Poor access to care for mothers

The high incidence of disease and poor access to healthcare for mothers (antenatal and postnatal consultations, assisted births) are causes of malnutrition. 58% of women nationwide do not receive any postnatal care. This proportion rises to 79% in the Far North and 84% in the North Region. The main barriers to accessing healthcare are distance from a health centre (18%) and insufficient money to pay for treatments (35%). According to the DHS-MICS (2011), 84.7% of women attended the first antenatal consultation (95.6% in urban areas compared with 75% in rural areas), while 62% received ANC 4 (77% in urban areas and 50% in rural areas).

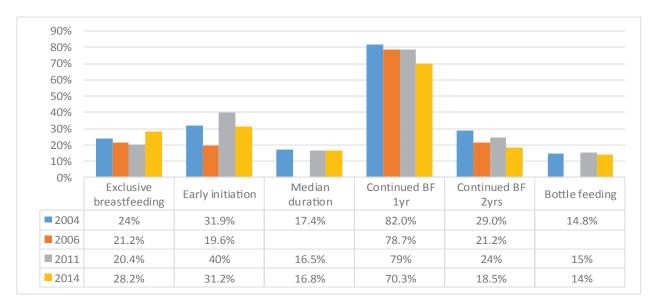
#### Poor access to water and sanitation

Sixty-nine percent of the population has access to a source of drinking water (MICS, 2014). However, the proportion of the urban population that has access to a source of drinking water (90%) is almost double that of the rural population (50%). Failure to observe good hygiene and sanitation practices, poor access to drinking water and basic sanitation are among the underlying causes of diarrhoea and, consequently, malnutrition. The percentage of households practising open defecation has levelled off at 7%, although this

percentage rises to over 20% in the North and Far North Regions, where chronic malnutrition rates are higher.

#### Poverty, low level of education, vulnerability

In Cameroon, almost 40% of the population lives below the poverty line (on less than one dollar a day). The regions where the highest rates of chronic malnutrition are observed are also the regions that have the highest rates of chronic poverty. Chronic malnutrition is more present (79%) in households where the education level of the mother is low. The North and Far North Regions are the most vulnerable.



#### Graph 10: Change in breastfeeding indicators in Cameroon

Source: The authors, based on DHS (3, 4)/MICS (2, 4)

#### b) Micronutrient deficiencies

Micronutrient deficiency manifests in both children and women with various symptoms, which are described below.

#### ✓ Anaemia

Anaemia in children and pregnant and lactating women is high. The data available show that 60% of under-fives are anaemic (DHS, 2011); the prevalence was 68% in 2004. There do not seem to be any major disparities between the regions. Eight of the ten regions have prevalence rates in excess of 60%. The South and Southwest Regions are the most affected, with rates of 73%

#### ✓ Vitamin A (iodine and zinc) deficiency in under-fives

Vitamin A deficiency is a public health problem in Cameroon. According to the results of the national survey of micronutrient deficiencies and fortified food consumption habits (MINSANTE, 2009), vitamin A deficiency affects 35% of schoolchildren. Furthermore, the age aforementioned survey showed that the regions most affected by vitamin A deficiency are the North (62.7%), the Far North (47.7%) and Adamawa (40.5%).

No recent studies have been carried out to

and 70%, respectively.

The prevalence of anaemia among pregnant women changed very little between 2004 and 2011, while prevalence among non-pregnant women and nursing mothers decreased, as shown in the graph in the annex.

evaluate iodine deficiency. Although the decree on universal salt iodization was passed in 1991, at present, just 85.9% of households consume iodized salt (MICS, 2014). This percentage is 5% lower than in 2011.

Concerning zinc deficiency, the data available (MINSANTE, 2009) reveal that 70% of children and 77% of women of childbearing age suffer from zinc deficiency.

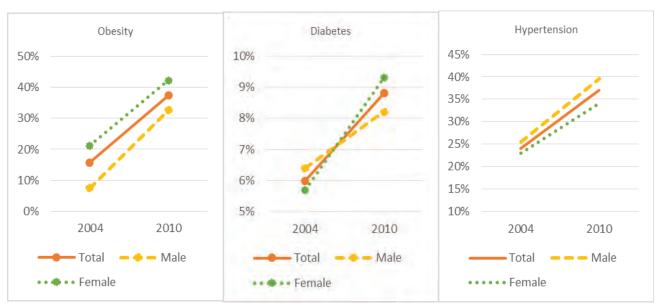
#### c) Overweight

#### ✓ Prevalence of obesity, diabetes and hypertension

The double burden of malnutrition undernutrition and obesity - is present is Cameroon. In fact, existing data reveal a rise in the prevalence of these conditions. Obesity has increased in Cameroon, from 16% in 2004 to 37.5% in 2010<sup>15</sup>. Moreover, the prevalence of hypertension and diabetes has followed the same trend. Hypertension prevalence has risen from 24% to 37%, while diabetes prevalence has risen from 6% to 9% (STEPS, 2004).

<sup>15</sup> WHO, Global Status Report on Non communicable Diseases (2010).

Cameroon Burden of Diabetes (CAMBoD) project. Baseline Survey, STEPS 2004.





**Source:** The authors, based on data from STEPS 2004 and the 2010 report on the status of NCDs.

#### I.3 CONSTRAINTS RELATED TO ACHIEVING FOOD AND NUTRITION SECURITY IN CAMEROON

#### **I.3.1 CONSTRAINTS RELATED TO ACHIEVING FOOD SECURITY**

Despite the country's great potential, overall food security remains precarious in Cameroon. It even reaches critical levels in some parts of the country. This situation can be explained by two types of causes: structural and cyclical.

#### I.3.1.1 Analysis of the structural context

The analysis of the structural context mainly refers to indicators linked to food supply, accessibility, stability and utilization.

#### a) Constraints related to food supply

#### 1. Outdated farming methods

In order to significantly increase agricultural production and meet domestic demand, as well as demand in the sub-region, Cameroon must shift from traditional family farming to modern, market-oriented agriculture, known as second-generation agriculture. The indicators regarding modern practices remain unsatisfactory. The use of tractors to expand the areas farmed is still marginal, and the use of effective inputs is insufficient. In 2012, the tractor use rate was less than three tractors per 100 km2 of arable land. By 2020 (NAIP), the government aims to increase this rate to 17.1 tractors per 100 km2 of arable land. A tractor assembly plant was opened in Ebolowa in 2010, with India as a technical and financial partner. The assembly of 1,000 tractors is planned for the first phase of this initiative. In 2016, 700 of them were produced, with 450 of them already having been distributed to farmers. Moreover, the problem of accessibility for the acquisition of these tractors persists given their relatively high

#### 2. Low technical capacity of producers

Cameroon has, for some time, had an extensive support network for small-scale farmers, made up of agricultural outposts as well as district, departmental and regional agriculture offices. This support structure was improved considerably in the 1980s when the National Agricultural Extension and Research Programme (PNVRA) was set up with financial assistance from the World Bank. This partnership came to an end towards the end of the 1990s. Since then, the transfer of cost for small-scale farmers (13 million CFA francs for the cheapest).

Similarly, use of agricultural inputs remains insufficient. In 2010, 41% of farmers used fertilisers and 38.3% used crop protection products.

Furthermore, with regard to livestock and fish production, only 1.3% of producers keep laying hens, while 85.9% rear chickens for meat. Fish farming, meanwhile, only covers 1% of domestic fish supply.

knowledge from research to producers and demonstrations of the associated cultivation techniques have become limited. Similarly, support with organizing producers into grassroots organizations and umbrella organizations has become merely symbolic. In Cameroon, only 1.3% of farmers belong to producer organizations<sup>16</sup>, which are gateways for development actions by the public authorities, the technical and financial partners, and NGOs.

Uses and customs are unfavorable for women in matters of land ownership where they are most often usufructuaries.

#### 3. Difficulty of access to land

Generally speaking, ownership of land for agricultural use is limited, particularly for women and young people. Cameroonian customs concerning land tenure are unfavourable for women, whose access is usually restricted to that of a usufructuary. Moreover, access to land is governed by customary practices which vary from one

region to another. In the northern part of the country, the West and the Northwest, land usually belongs to the traditional authority, which lets users farm it in exchange for remuneration. The verbal agreement that binds the two parties can be broken at any time, which limits long-term investments and prudent management of

<sup>16</sup> Figures from MINADER, 2010.

soil fertility.

In the southern part of the country, where land is family-owned, productive

investment is limited by the high cost of forest clearance.

Only 4.4% of farmers have received credit and 81.2% are using their own resources

#### 4. Limited access to finance

Credit institutions do not tend to be keen on financing agricultural activities. Only 4.4% of farmers have received loans, while 81.2% operate using their own resources, which are very limited (AGRISTAT, 2010). It should be pointed out that the credit referred to here is primarily micro-credit; the amounts are small, the interest rates are high and the repayment terms are short. Such practices do not favour sustainable investment and modernization of production equipment.

#### b. Constraints related to access

#### 1. Difficulties of accessing the market

The marketing of agricultural products is usually restricted, for a number of reasons, including: the poor state of the roads in linking production areas to consumption areas, the poor organization of producers

#### 2. Rise in food prices

During the rainy season, access to rural markets is difficult due to the poor state of the roads, which results in higher transportation costs and, as a consequence, inflation of the prices of products in the

#### 3. Low purchasing power of households

According to the results of ECAM4 (2014), household purchasing power is declining, as the number of poor rose from 7.1 million in 2007 to 8.1 million in 2014. However, it should be noted that the incidence of poverty fell by 2.4% over the same period, from 39.9% (2007) to 37.5% (2014). This incidence decreases in urban areas but tends to rise in rural areas.

and limited knowledge of market conditions. Moreover, the small quantities of produce available from the producers do not attract buyers.

markets. Food price fluctuations also result from competition between demand for human consumption and demand for industrial use.

Furthermore, the poor households of unemployed people or those on lowincomes, as well as those working in the informal sector, struggle greatly to feed themselves properly. In rural areas, producers must contend with variations in the terms of trade. This undermines their ability to substitute their own production with other food products. These variations are usually detrimental to the producers.

#### c) Constraints related to stability

The stability of supplies is impaired by several factors, the most limiting of which include (1) post-production losses, (2) limited processing of livestock products, (3) lack of storage and preservation facilities.

The estimated post-production losses of almost 25% represent a significant shortfall for the country's economy as a whole.

#### 1. Post-harvest losses

Post-production losses are estimated at around 25%<sup>17</sup> and represent a major loss of earnings for the economy as a whole. In addition to the large volumes of produce that could have been consumed directly, processed or exported, the decline in monetary value from production to reaching the market is striking. However, that value is difficult to estimate due to the lack of

information on certain parameters such as discount selling damaged or spoiled produce.

In order to have an idea of the scale of these losses, estimates have been made based on production volumes, loss levels and average prices in consumer markets, all of which have been gleaned from the literature on this subject.

## Table 4: Estimate by volume of post-production losses in certain plant sectorsin Cameroon

Sector	Production (tonnes)(1)	% of losses (2)	Volume of losses (mt) (3) =(1) X (2)
Pineapple	175.000	40	70.000
Maize	2.000.000	20	400.000
Millet et sorghum	1.300.000	20	260.000
Irrigated rice	65.000	20	13.000
Rainfed rice	98.000	20	19.600
Cassava	4.500.000	40	1.800.000
potato	250.000	30	75.000
Onion	140.000	40	56.000
Tomato	1.000.000	40	400.000
Pulses	1.500.000	40	600.000

**Source**: FAO (2015)

17 FAO, 2015, Stratégie de réduction des pertes post-production.

In the livestock sectors, while loss levels are lower due to the direct consumption of meat after slaughter, they are still worrying.

Filières	Production 2013 en tonnes (1)	% des per- tes (2)	Volume des pertes (3) =(1) X (2)
Beef	92.163	10	921.630
Poultry	119.053	5	5.953

10

40

20

40

3.518

26.046

52.000

94.312

35.180

65.116

260.000

235.779

### Table 5: Estimate by volume of post-production losses in certain livestock sectors

#### Source: FAO (2015), MINEPIA (2016)

Pork

Eggs

Fish

Milk

It is important to highlight the quantities of livestock and meat supplied to the domestic market; there has been a rise in demand between the two periods. The table below shows the change between 2013 and 2014.

There has been a growing trend in demand for livestock and meat between 2013 and 2014.

#### Table 6: Change in quantities of livestock and meat

2013 Descrip Number of Tennes		2014		Change (e %)	
Number of livestock	Tonnes of meat	Number of livestock	Tonnes of meat	(c/a)	(d/b)
(a)	(b)	(c)	(d)		
5.805.297	92.163	6.310.358	102.572	8,7	11,3
2.952.624	4.715	3.050.061	12.833	3,3	172,2
6.298.059	14.706	6.190.992	25.341	-1,7	72,3
3.112.973	35.180	3.212.588	28.150	3,2	-20,0
72.758.691	119.053	74.336.054	126.378	2,2	6,2
	Number of livestock           (a)           5.805.297           2.952.624           6.298.059           3.112.973	Number of livestockTonnes of meat(a)(b)5.805.29792.1632.952.6244.7156.298.05914.7063.112.97335.180	Number of livestock         Tonnes of meat         Number of livestock           (a)         (b)         (c)           5.805.297         92.163         6.310.358           2.952.624         4.715         3.050.061           6.298.059         14.706         6.190.992           3.112.973         35.180         3.212.588	Number of livestock         Tonnes of meat         Number of livestock         Tonnes of meat           (a)         (b)         (c)         (d)           5.805.297         92.163         6.310.358         102.572           2.952.624         4.715         3.050.061         12.833           6.298.059         14.706         6.190.992         25.341           3.112.973         35.180         3.212.588         28.150	Z013         Z014         %)           Number of livestock         Tonnes of meat         Number of livestock         Tonnes of meat (d)         (c/a)           (a)         (b)         (c)         Tonnes of meat (d)         (c/a)           5.805.297         92.163         6.310.358         102.572         8,7           2.952.624         4.715         3.050.061         12.833         3,3           6.298.059         14.706         6.190.992         25.341         -1,7           3.112.973         35.180         3.212.588         28.150         3,2

Source: MINEPIA (REF, 2016)

Processing techniques are artisanal, poorly performing with little consideration of the notions of quality.

#### 2. Limited processing of livestock products

The limited processing of livestock products affects the preservation capacity. The level of processing is influenced by the major seasonal fluctuations between the periods of abundance and periods of scarcity.

The processing techniques currently used

are artisanal, inefficient and give little attention to quality. These techniques reflect a limited understanding of good hygiene practices (GHPs) and good manufacturing practices (GMPs), as well as a poor grasp of production, processing and marketing processes.

#### 3. Lack of storage and preservation facilities

At the national level, it appears that apart from the Cereals Board (see boxed text below) and the FAO/WFP Management Committee in charge of the management, monitoring and coordination of humanitarian aid, the state has no other storage arrangements for food products to food insecurity in Cameroon. tackle Therefore, responses to food crises are mounted with the help of imported products such as rice, maize and refined oils.

Storage capacity is also affected by the energy deficit, which results in frequent power outings and has a negative impact on the cold chains. The problem of storage particularly affects animal production (meat, fish, milk, and eggs), but also fruits and vegetables whose high water content makes them highly perishable.



#### **Cameroon Cereal Board**

Established in 1975, the Cereals Board intervenes in the cereals markets with the aim of creating a buffer stock, making it possible to stabilize prices and fight hunger. To this end, it is responsible for (1) purchasing cereals, (2) setting up a cereal transportation and storage system, (3) ensuring regular market supplies, (4) spreading the use of methods to reduce post-harvest losses, (5) the processing of cereals and a variety of other products and (6) finding domestic and foreign outlets to promote the development of national cereal production.

For the implementation of these activities, the Cereals Board has 44 storage warehouses with a capacity of 47,650 tonnes, located in the country's three northern regions: North, Far North and Adamawa.

It should be noted that, since 2010, the Board's storage capacity has been underused. Indeed, the average combined occupation of the warehouses is around 8,800 tonnes of cereals (sorghum, maize, and paddy) per year, which is equivalent to 18.5% of the total capacity. Furthermore, the application of VAT increases the cost of food products by 20%, which has an impact on the population's purchasing power.

It is also important to highlight the need to extend the Cereal Board's activities to other regions of Cameroon in order to improve the availability and accessibility of foodstuffs.

**Source:** The authors, based on the regional consultations (2016)

The low level of nutritional education of the populations is explained by the Inadequate food intake, inadequate hygiene at all stages of the food chain.

#### d. Constraints related to utilization

#### 1. Nutrition education

The population's low level of nutrition education is reflected in poor dietary habits and poor hygiene at all stages of the food chain. Added to that is the absence of preventive measures in food processing and preparation operations, the misuse of chemicals, ingredients and water, and unsuitable or unfit transportation and storage.

These problems are partly due to the fact that food processing industries and production systems are not always standardized. Moreover, there has been an increase in sales of street food, which is completely uncontrolled, yet, due to their occupations, many people are often dependent on this type of food. There is also a lack of food control infrastructure to guarantee the quality and safety of food products.

#### I.3.1.1 Analysis of the conjuncture context

#### a) Emergency plan

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In order to expedite development actions with a view to Cameroon becoming an emerging country by 2035, the country's head of state introduced a three-year emergency plan (2014 to 2017). In the rural sector, one of the focuses of the emergency plan is the improvement of access to agricultural inputs (fertilisers, improved seeds, etc.). However, one of the difficulties hindering its implementation is excessive bureaucracy.



*Climate change is a serious threat to food security in Cameroon through its impact on water resources, biodiversity, ecosystem and rainfall variability* 

#### b) Climate change

Cameroon is divided into five climatic zones, according to Graph 1 above, with rainfall varying from 400 to 4,000 mm/year between the Sudano-Sahelian regions and the forest regions. Climate change poses a serious threat to food security in Cameroon due to its impact on water resources, biodiversity, the ecosystem and inconsistencies in rainfall.

Climate is a key factor in agricultural production and scant rainfall can have a negative impact on agricultural productivity. Moreover, the effects of climate change are being felt strongly in the Sahelian zone, causing drying up of water courses. In the mountainous zone of the West, meanwhile, climate change is causing drying of surface water, which impacts agricultural production. In coastal areas, rising water levels are leading to flooding.

However, it should be recalled that Cameroon has ratified the Paris Agreement on climate change, which aims to keep global warming below 2°C above preindustrial levels and to limit the temperature increase to 1.5°C. The country is responsible for implementing programmes and projects to contribute to the global effort.



#### c) Security threat

In recent years, border insecurity in the northern regions and the East has resulted in an influx of refugees and internal displacement of local communities. This situation causes major disruption to agropastoral activities in those regions. It has escalated and led to population instability on both sides of the Nigeria-Cameroon border. This situation has prompted an influx of Nigerian refugees into Cameroon and internal displacement of communities, particularly in the departments of Mayo-Sava, Mayo-Tsanaga and Logone-et-Chari (North and Far North Regions), and an influx of Central African refugees into the East Region.

According to statistics from the IOM (2016), the violence perpetrated by Boko Haram in Nigeria has prompted the arrival of more than 70,000 refugees in Cameroon, while 190,000 Cameroonians have been forced to move further into the country to flee Boko Haram raids, mainly along the border with Nigeria. Meanwhile, the number of Central African refugees is estimated at almost 300,000.

Sub-optimal and inappropriate dietary practices contribute significantly to high rates of malnutrition in Cameroon.

## I.3.2. CONSTRAINTS RELATED TO ACHIEVING NUTRITION SECURITY IN CAMEROON

#### a) Inappropriate feeding practices

Sub-optimal and inappropriate feeding practices contribute significantly to the high rates of malnutrition in Cameroon. This phenomenon is due to household food insecurity, a lack of knowledge about appropriate feeding practices and sociocultural beliefs. There are several food

#### b) Prevalence of disease

According to data from the 2014 MICS survey, the prevalence of diarrhoeal diseases in children under five years of age was 20%, of which 25.2% sought treatment and only 5.2% were treated with ORS (oral rehydration salts) and zinc. Fever, meanwhile, affects 25.6% of children, of whom 54.8% slept under insecticide-

taboos and prohibitions in Cameroon, especially for women and children. While anecdotal evidence suggests that these sociocultural factors have serious repercussions on nutritional status, no scientific studies have been carried out to ascertain those effects.

treated mosquito nets. In the first half of 2015, 7,000 cases of measles were recorded in 15 health districts (Expanded Programme on Immunization, 2015). The Far North experiences recurrent cholera epidemics. One hundred and twenty-three cases of cholera (six deaths) were reported in 2015 (UNICEF, 2015)<sup>18</sup>.

<sup>18</sup> UNICEF. Cameroon Humanitarian Situation report. December 2015.

#### c) Access to health services

Access to healthcare remains insufficient in Cameroon due to poor health coverage. Geographical distribution of healthcare facilities is uneven, with the majority being located in urban areas. Only 40% of villages have a functioning health centre and this proportion is even lower in the northern regions (30%). The shortage of functioning health centres means that people must obtain healthcare at the nearest centre which, in 65% of cases, is more than an hour's walk away.

The ratio of health professionals to inhabitants is 0.63/1,000, which is below the international standard of 2.3 (INS, 2015).

#### d) Water, sanitation and hygiene (WASH)

Access to drinking water and sanitation infrastructure is limited. Twenty-seven percent of the population does not have access to safe drinking water and 65% does not have access to adequate sanitation (MICS, 2014). The situation is worse in rural areas than in urban areas. Only 7% of the urban population does not have access to drinking water, while in rural areas this proportion is 46%. Concerning sanitation,

#### e) Level of education of women

Women's education is a key determinant of child malnutrition. Education level has in impact on nutrition through its effect on factors related to fertility, feeding practices and use of healthcare services. In Cameroon, more than half (54%) of women have only completed primary education or have received no schooling at all, and 20% are illiterate.

The female illiteracy rate is particularly high

44% and 85% of people have access in urban and rural areas, respectively.

Poor hygiene practices are another constraint. For children, excreta disposal is carried out in an unhygienic manner. Open defecation is still practised by 7.2% of the population (1.5% in urban areas and 12.3% in rural areas). These practices pose a high risk of contracting and spreading diseases.

in the three regions of the north where the highest prevalence of malnutrition is recorded (Far North 62.2%, North 52%, Adamawa 40%).

Nutrition education for women, particularly those who have received limited schooling, is key to improving the nutritional status of households.

#### CONCLUSION

This chapter shows that, overall, Cameroon is not threatened by an insufficient supply of cereal products. However, the situation of fish production is still critical, despite the growth of this sector over the years. Its import dependency ratio (IDR) is 50%. Moreover, although the trend for the country as a whole is positive, regrettably, five of Cameroon's ten regions face food insecurity. They are the Far North, North, Adamawa and East and, to a lesser degree, the West Region.

Meanwhile, the nutrition situation remains worrying, particularly in the northern part of the country.

In addition, the major constraints have been identified, namely: the use of outdated cultivation methods, poor access to production areas, post-harvest losses and the lack of nutrition education.

### CHAPTER II: REVIEW OF FOOD SECURITY AND NUTRITION POLICIES AND PROGRAMMES IN CAMEROON

#### **INTRODUCTION**

This chapter will review the different policies and programmes that contribute to food security and nutrition in Cameroon. To this end, the chapter is structured in two sections: firstly, an examination of policies, strategies and plans relating to food security and nutrition and, secondly, an overview of the associated programmes.

### II.1 REVIEW OF FOOD SECURITY AND NUTRITION POLICIES, STRATEGIES AND PLANS IN CAMEROON

The food security policies, strategies and plans have been reviewed according to the nature of the actors involved, namely the government, the private sector, the Decentralized Territorial Authorities (CTDs) and the TFPs.

#### II.1.1 Food security and nutrition policies and strategies in Cameroon

It is important to note that food security and nutrition policies and plans are shaped by the actors involved in their implementation.

*Vision 2035: Agriculture is considered one of the priority sectors but there is no food security strategy. However, the main tool developed by the Government is the National Food Security Program (NFSP) set up in 2009.* 

#### a) Government vision and strategies in relation to food security and nutrition

With regard to the government's vision for food security, it has set itself the goal of making Cameroon an emerging country by 2035. Agriculture is considered one of the priority sectors to achieve this. Hence, a strategy has been introduced for the rural sector with the aim of making Cameroon the breadbasket of Central Africa thanks to a veritable "agricultural revolution".

In Cameroon there is no food security strategy. However, the main tool developed by the Cameroonian Government that addresses the problem of food security is the National Food Security Programme (NFSP), which was set up in 2009. The NFSP is an adaptation of the Rural Sector Development Strategy (SDSR) and has two objectives:

- develop agricultural production and supply in a sustainable manner;
- Manage the risks of food insecurity.

As regards nutrition, it should be noted that the Government's strategy covering the period 2006-2011 was revised in 2015. The Food and Nutrition Policy document sets out the main lines of action to contribute to the improvement of the food and nutritional situation of the population.

With regard to the Government's strategies for food and nutritional security, the GESP

stresses the major sectoral challenges: the level of competitiveness of the productive sector and the cost of production factors (infrastructure and energy)



#### National Food Security Programme (NFSP)

Created in 2009 by a decree of the Prime Minister, the National Food Security Programme (PNSA) is the main tool implemented by the government, with the support of the FAO, to tackle the problem of food insecurity in Cameroon. It is the second phase of the Special Programme for Food Security begun in 1994 by the FAO to address the rise in poverty in developing countries, which Cameroon joined. Its objective was to fight food insecurity with a view to reducing by half, by 2015, the number of people suffering from hunger and malnutrition in Cameroon, particularly among vulnerable sections of society in rural and peri-urban areas.

The NFSP is made up of six sub-programmes focused on:

- Development of basic natural resources (1);
- Crop intensification (2);
- Diversification of production systems (3);
- Processing and marketing (4);
- ✓ Nutrition (5);
- ✓ The crisis monitoring, alert and response system (6).

There is also a section on measures to support the programme. Each of these subprogrammes is broken down into components and sub-components. Based on the positive results of the pilot phase, implementation of the NFSP activities combined with the achievements of existing food security projects and programmes should make it possible to considerably reduce household food insecurity.

Indeed, it should be noted that the implementation of sub-programmes (2) and (3à -"crop intensification" and "diversification of production systems" - in conjunction with other projects, led to a reduction of approximately 2.7% in the incidence of poverty between 2001 and 2014 (ECAM4, 2015). This earned Cameroon an award certificate from the FAO in recognition of the 15.4% decrease in the proportion of the Cameroonian population suffering from hunger, following an improvement in the national supply of food products and effective control of the market prices of those products.

Moreover, during its operational phase, the agreements between the government and the partners provided for the mobilization of 70,079 million CFA francs with an expected contribution from the state estimated at 39,039 million CFA francs, i.e. 50% of the overall programme budget. Forty-four percent of the resources were be provided by the partners, with the remaining 6% being made up by beneficiary contributions. In actual fact, the NFSP only received a budget allocation of around 600 million CFA francs from the government, hence the reduction in the programme interventions on the ground. That explains why the NFSP is performing below the expectations defined at the preparation stage.

With regard to nutrition, the government's strategy for the 2006-2011 period was revised in 2015. Indeed, the food and nutrition policy document defines priority focuses designed to contribute to improving the food and nutrition situation of the population.

Concerning the government's food security and nutrition strategies, the GESP underlines the main sectoral challenges, which are the level of competitiveness of the production sector and the cost of the factors of production (infrastructure, energy). By 2020, the Government intends to increase the production of cereals, in particular maize (+ 100%), irrigated rice (169%) and, above all, rainfed rice (487%), cassava (33.33%) and potato (40%)

#### b) Government plans in relation to food and nutrition security

The government plans that contribute to food and nutrition security are the Rural Development Plan, the National Agricultural Investment Plan and other related plans.

#### 1. Rural Development Plan

Concerning the rural sector, the GESP envisages stepping up, during the 2010-2020 period, implementation of the strategy adopted in 2005, which aims to "Contribute to the fight against poverty, ensure food security, achieve trade integration and ensure sustainable

#### Crop production component

By 2020, the government plans to increase the production of cereals, particularly maize (+100%), irrigated rice (169%), rainfed ✓ Livestock production component

With regard to livestock production, the government has focused on boosting the supply of animal proteins in the form of meat, eggs and milk. This will be achieved by raising the consumption of proteins from

#### Fish production component

Fish production remains insufficient given the high domestic demand. Therefore, the aim is to reach domestic supply of 245,518 performance".

This plan is structured around a central axis: the development of the crop, livestock and fish production sectors with a view to improving food and nutrition security in Cameroon in the 2013-2020 period.

rice (487%), cassava (33.33%) and potato (40%).

meat and milk from 22.8 kg/cap/year in 2010 to 27.5 kg/cap/year in 2015 and 38.0 kg/cap/year in 2020. In addition, the supply of eggs should be increased by 96.2% by 2020 (MINEPIA, 2013).

tonnes by 2020. The table below illustrates the level of fish production as well as the production deficit.

Year	2014	2015	2016	2017	2018	2019	2020
National Production (mt)	198.087	210.025	216.868	222.937	227.944	237.912	245.518
Overall supply	404.654	375.279	349.071	328.699	312.554	323.366	315.936
Production deficit	223.308	223.591	229.322	237.273	244.483	246.497	251.374
Source: MINEPIA		223.591	229.322	237.273	244.483	246.497	251.374

#### Table 7: Fish production forecast from 2014 to 2020 (mt)

<u>oouroo</u>. Minternit

The targets set for the crop, livestock or fish sectors by certain government bodies responsible for food production, particularly the Ministry of Agriculture and Rural Development (MINADER) and the Ministry of Livestock, **Fisheries** and Animal Industries (MINEPIA), are rather ambitious. To ensure that they are achieved, a strategy with four main focuses was prepared in 2015. The strategic focuses through which these government bodies plan to implement their actions are: modernization of farms, development of production sectors and improved marketing of produce (Focus 1); modernization of rural infrastructure, facilitation of access to factors of production, finance and insurance (Focus 2); planning, equitable distribution and sustainable management of rural land and resources (Focus natural 3); and development of private initiatives, improvement of governance and the institutional framework, and capacitybuilding of stakeholders (Focus 4).

#### 2. National Agricultural Investment Plan (NAIP)

With a view to improving the performance of the agricultural sector, the government has signed up to the Comprehensive Africa Agriculture Development Programme (CAADP). The CAADP is a continent-wide initiative of the African Union's New for Africa's Partnership Development (NEPAD). It was adopted by the African heads of state and government at the 2003 summit in Maputo, Mozambique. Within the framework of the CAADP, the states have committed to allocating 10% of their national budgets to agriculture. Consequently, the majority of African countries have prepared а National Agricultural Investment Plan (NAIP). Cameroon prepared and signed the NAIP with the partners in 2014.

The NAIP establishes a seven-year national planning framework for national and external funding for the development of the rural sector. It takes into account the needs, the funding in place, gaps requiring investment and the functioning of the agricultural sector. In this way, the NAIP aims to bring together all the programmes and projects underway and generate any new interventions.

The main objective of the NAIP is to make the rural sector a strong driver of Cameroon's economy, a sector that creates decent jobs and wealth to meet domestic and foreign demand, while ensuring the food and nutrition security of the population in a context of sustainable development. More specifically, the NAIP aims to: (i) make the products of Cameroon's rural sector more competitive and help secure a larger share of the sub-regional and international markets for them, while ensuring satisfactory coverage of food and nutrition needs; (ii) increase the efficiency of the fundamental factors of production through optimal development of land and water resources, improvement of the standard of living of rural producers and their connection to the markets, and improvement of access to appropriate materials, equipment and finance; (iii) optimize the sustainable use of natural resources for the balanced promotion of all sectors, taking into the account environmental conservation and adaptation to climate change; (iv) create favourable conditions for development of the sector by improving governance by involving all the

stakeholders, in order to ensure effective and efficient planning, programming, budgeting, fund mobilization, implementation and monitoring/evaluation of the development of the rural sector.

The cost of the NAIP is estimated at 3,551 billion CFA francs for the 2014-2020 period, with fairly balanced distribution between development of the sectors, modernization of the factors of production, and governance and institutional development. The total amount of the projects financed using external resources is almost 573 billion CFA francs, while domestic financing is estimated at 1,459.8 billion over the period. Therefore, almost 1,509 billion CFA francs of additional funding is needed, mainly for the second thematic area, which includes major structural investments as well as facilitating access to finance.

Area of intervention	Cost (Mil- liards)	Funding in place	GAP	GAP (%)
Thematic area 1	1.101,6	798,2	303,4	20,10%
Thematic area 2	910,9	237,9	673,0	44,60%
Thematic area 3	413,8	283,9	129,9	8,60%
Thematic area 4	1.124,8	722,1	402,7	26,70%
TOTAL	3.551,1	2.042,1	1.509,0	42,50%

#### Table 8: Distribution of financing gaps in the NAIP (in billions of CFA francs)

Source: NAIP report (2014)

#### 3. Strategy for the Health Sector (SHS)

Drafted in 2015 and currently pending approval, the SHS covers the period from 2016 to 2027 and is aligned with the GESP and the SDGs. Its vision is to provide universal access to quality health services for all sectors of society by 2035. This strategy is segmented into three vertical components, which are: (i) health promotion, (ii) disease prevention and (iii) disease management; it also has two strategy-wide components: (iv) strengthening the health system and v) governance and strategic management.

Concerning sub-component (1), health promotion, the strategy aims to promote good eating and nutritional habits to reduce the vulnerability of the population to diseases due to poor diet. The activities of this sub-component include: (i) advocate for the allocation of greater financial and human resources to promoting a healthy, balanced diet; (ii) improve the safety of foods placed on the market and foods consumed by the population; (iii) design and implement nutrition education programmes adapted to the sociocultural and economic context and tackle poor feeding practices in each region; (iv) improve the population's access to a balanced diet; (v) improve food labelling.

#### 4. National Food and Nutrition Policy (NFNP)

The 2015-2035 National Food and Nutrition Policy (NFNP) aims to: (i) reduce levels of undernutrition; (ii) reduce morbidity and mortality due to noncommunicable diseases; (iii) increase production and consumption of safe foods of high nutritional value; (iv) set up a sustainable system for coordination of the actions carried out in the different sectors and at different levels; (v) incorporate food and nutrition into the various development plans and programmes, including the allocation of substantial resources at all levels.

The NFNP has two strategic focuses, as explained in the boxed text. The new policy is still at the approval stage. However, a five-year operational plan is currently being prepared.

#### Strategic focus of the National Food and Nutrition Policy

#### Ten strategic focuses of the NFNP

- 1. Promotion of infant and young child feeding, and nutrition of pregnant and lactating women;
- 2. Fight against undernutrition and micronutrient deficiencies;
- 3. Prevention and treatment of diseases in children and pregnant and lactating women;
- 4. Household food security and food safety;
- 5. Water, sanitation and hygiene;
- 6. Fight against over nutrition and diet- and lifestyle-related diseases;
- 7. Emergency preparedness and response, and community resilience;
- 8. Research, training and capacity-building in the area of food and nutrition;
- 9. Food and nutrition support for socio-economically vulnerable people;
- 10. Education and communication for development

Public expenditure is very insufficient with regard to the stakes and the incidence of food insecurity which affects about 25% of the Cameroonian population

## II.2. REVIEW OF FOOD SECURITY AND NUTRITION PROGRAMMES IN CAMEROON

## II.2.1 Government programmes and projects contributing to food security and nutrition in Cameroon

#### II.2.1.1 Food security

According to the evaluation of the contributions of the different ministerial departments involved in food security in Cameroon and based on the definition of food security and an analysis of Decree No. 2011/408 of 9 December 2011 on the organization of the government, a total of 21 ministerial departments are working to achieve food security in Cameroon. These departments are implementing around sixty initiatives focused on two priority areas: (i) productivity growth and gains and (ii) facilitating direct and immediate access to food. These interventions cover the four dimensions of food security which are availability, access, utilization and stability.

Furthermore, since its implementation in 2009, the NFSP has targeted more than 366,600 households, reaching 2,200,000 individual beneficiaries. Those beneficiaries are primarily in the agricultural and rural sector and are accessed through professional bodies, CTDs, partner NGOs, and so on.

In addition to the above-mentioned programme, several other government initiatives<sup>19</sup> are being implemented in order to boost the food supply in Cameroon.

However, while those programmes make a

considerable contribution to domestic food supply, it should be highlighted that the poor access to the majority of food production areas is a concern for the government. The objective is to make it easier not only to supply producers with agricultural inputs but also, more particularly, to transport their produce to the centres of consumption. The volume of resources allocated to upgrading of rural tracks and asphalting and maintenance of roads since 2008, including the resources transferred to the Road Fund, is estimated at between 32 and 35 billion CFA francs.

In view of this lack of accessibility, analysis of the Medium-Term Expenditure Framework (MTEF) of the Ministry of Public Works reveals that the financing needs of rural roads are estimated at an annual average of 33.8 billion CFA francs, with a increase. Given aradual that the corresponding budget allocations have not increased significantly since 2009, there is growing gap between the needs а expressed in the MTEFs and the budget allocations; that gap was around 30% in 2012.

Concerning the improvement of access to and from production areas (rural tracks), it has not yet been possible to obtain

<sup>19</sup> See the annex for a list of government programmes on food security.

information about the coverage required (distance in kilometres, locations, etc.) and, therefore, analyse the impact of this action on food security.

Moreover, it should be underlined that the average amount of resources allocated<sup>20</sup> to the different programmes mentioned above each year is estimated at 78,880,263,535 CFA francs. This represents 3.5%<sup>21</sup> of the national budget and 0.7% of the GDP of the

#### II.2.1.2 Nutrition

The government body in charge of the implementation of nutrition interventions is the Ministry of Health's Food and Nutrition Division. Nutrition interventions are mainly

#### a) Management of acute malnutrition

The national protocol for the management of acute malnutrition was initially prepared in 2007 and then revised in 2010 and 2013. This programme is being implemented in the Far North, North, Adamawa and East. It targets children under five years of age, pregnant and lactating women and people living with HIV/AIDS and tuberculosis.

UNICEF provides the inputs as well as technical and financial support for the treatment of severe acute malnutrition. The WFP intervenes upstream in the prevention primary sector, respectively. That budget allocation covers the four pillars of food security. In this respect, we note that 65.9% of the resources are assigned to the food availability pillar, 24.2% to access, 8.2% to stability and 1.7% to utilization. This reveals that public spending is extremely insufficient given the challenges and the incidence of food insecurity, which affects approximately 25%<sup>22</sup> of Cameroon's population.

concentrated in the Far North, North, Adamawa and East Regions. The following interventions have been carried out:

and treatment of moderate acute malnutrition by providing nutritional inputs backed up by financial and logistical technical support.

The major challenges encountered in the implementation of this programme include: (i) depletion of stocks of inputs (food supplements such as Plumpy nut, medicines for systemic therapy and equipment for anthropometric measurements), inconsistency of data and insufficient training of health personnel.

#### b) Organization of Action Weeks for Infant and Maternal Health and Nutrition

Since 2008, Cameroon has organized Action Weeks for Infant and Maternal Health and Nutrition. These campaigns offer an integrated package of high-impact interventions for maternal and child survival. They include vitamin A supplementation, deworming, vaccination, distribution of mosquito nets, screening for malnutrition and intermittent preventive

<sup>20</sup> NFSP report (2014).

<sup>21</sup> Budget limited to the financing of agriculture and livestock farming.

<sup>22</sup> According to the Global Hunger Index (IFPRI, 2015), while according to the INS this rate is 15.4%.

treatment of malaria for pregnant women.

Thanks to the Action Weeks, more than 90% of children receive two doses of vitamin A supplements a year. The interventions achieve high coverage thanks to the large-scale social mobilization and

#### c) Infant and young child feeding

In 2005, the International Code of Marketing of Breast-milk Substitutes was approved and incorporated into Cameroonian legislation. However, violations of this code are widespread due to the fact that no system has been set up to enforce and monitor the Code.

A national infant and young child feeding

strong community participation that characterize these events. These campaigns have proven to be effective as platforms for taking nutrition education to women. This potential has not yet been fully exploited in Cameroon.

strategy was prepared in 2014, but has not yet been implemented. However, this strategy is currently being tested in four health districts in the North Region. The activities include nutrition education on meal preparation and appropriate feeding practices, home food fortification using micronutrient powders and the creation of support groups.

Supplements of Iron, Folic Acid and Calcium are made available to pregnant women at subsidized prices in prenatal clinics. However, according to the DHS 2011 only 54% of women reported taking iron supplements and folic acid for more than 90 days.

#### d) Micronutrient supplementation

Vitamin A supplements are distributed during the Action Weeks for Infant and Maternal Health and Nutrition and EPI interventions. The beneficiaries are children agreed between six and 59 months, women in the immediate postpartum period and sick children (children suffering from xerophthalmia, measles, malnutrition, diarrhoea, acute respiratory infections and HIV). Some challenges of the programme include shortages of stocks of vitamin A capsules at healthcare facilities and the weakness of the information system. Zinc supplementation is part of the treatment of diarrhoea, especially in malnourished children. However, implementation remains low, with only 5% of children receiving zinc supplements in the treatment of diarrhoea (MICS, 2014).

Iron, folic acid and calcium supplements are offered to pregnant women at subsidized prices at antenatal clinics. However, according to the 2011 DHS, only 54% of women said they had taken iron and folic acid supplements for more than 90 days. Since the start of the food fortification program, there has been no follow-up exercise or a study to assess national coverage.

#### e) Food fortification

The strategy to combat iodine deficiency, adopted in 1991, consists of compulsory iodization of table salt (whether imported or produced locally) at 100 parts per million.

In 2009, a decree on food fortification was signed. Within that context, Cameroon's Standards and Quality Agency (ANOR) produced standards for the fortification of flour with iron, folic acid, zinc and vitamin B12. It also produced standards on the fortification of vegetable oil with vitamin A. The same year, two orders were issued, making it compulsory to comply with those standards.

Since the start of the food fortification programme, no monitoring exercises or studies have been carried out to evaluate its national coverage.

Since 2014, a National School Feeding Policy (PNAS) with an operational action plan is under preparation.

#### f) School feeding

The School Feeding Programme in Cameroon is supported by the World Food Programme and the NGO Nascent Solutions. In 2016, 153,500<sup>23</sup> children are receiving meals at school. In addition to providing school meals as well as take-home rations for girls, the programme contributes to the creation of school gardens, the construction of latrines and wells, and training of teachers. No study has been undertaken yet

to evaluate the impact of the programme on the children's nutritional status. However, a positive impact on school enrolment and attendance rates has been reported (WFP, 2010)<sup>24</sup>. Efforts to extend the programme to the rest of the country are underway. In 2014, work began on the development of a National School Feeding Policy, together with an operational action plan.

<sup>23</sup> The WFP programme is targeting 19,500 children in the North Region, while the Nascent Solutions programme is targeting 134,000 children in the Northwest Region.

<sup>24</sup> WFP. Mid-term Review of the WFP Country Programme for Cameroon 2008-2012.

### School Feeding Programme in Cameroon

Three key partners support Cameroon with school feeding: the World Food Programme (WFP) since 1973, Counterpart International (CI) (2008-2015) and Nascent Solutions since 2016. These partners primarily provide food aid in the form of meals for pupils in priority education zones, particularly the Far North, North, Adamawa and East.

The table below presents the results of the activities carried out within the framework of the programmes

Source: PNES report (2015)

Programme	Period	Targeted beneficiaries	Region
WFP (Country	2003/2007	67.000	North Far North
Programme)	2008/2012	55.246	Adamawa
	2013/2017	55.000	
Counterpart	2008/2012	45.383	Northwest
International	2012	501.087	North

The shortcomings identified or the constraints facing the aforementioned partners in implementing the school feeding programmes in Cameroon include:

- limited national coverage (2.26%);
- failure to consider local producers when purchasing foodstuffs;
- budgetary constraints of donors and failure by the government to release the agreed match-funding to finance the programmes;
- inefficient running and reduction of the number of schools assisted in the programmes; for the WFP programme, 135 schools assisted out of a target group of 250 schools during the 2013-2017 period.

With regard to the above-mentioned observations, it is essential for school feeding activities to be extended to all towns in the priority education zones, sourcing local produce from small-scale farmers. That would contribute to achieving the goals set in the African Union guidelines regarding school feeding based on locally produced foods.

Furthermore, the WFP should undertake an evaluation of the impact of its activities in this area before the end of the programme (CP-200330), which covers the period from 2013 to 2017.

Meanwhile, the government is urged to release the necessary match-funding for implementation of the joint programmes with the WFP with a view to increasing the national coverage of the School Feeding Programme in Cameroon.



School feeding in Ndiguina, Far North region

## **II.2.2** Programmes and projects of the partners and other stakeholders involved in food security and nutrition in Cameroon

#### II.2.2.1 Contribution of the technical and financial partners (TFPs)

The contribution of the TFPs focuses, among other things, on supporting activities relating to agriculture, livestock farming and the environment. A list of the programmes and projects is included in the annex.

#### a) TFPs and agricultural development

Cameroon is involved in the Comprehensive Africa Agriculture Development Programme (CAADP) process, which has led to the drafting of an Agriculture Policy and a National Agricultural Investment Plan (NAIP). This process is led by MINADER and is supported by the FAO through the Agricultural Investment Planning Capacity-Building Project (PRCPIA).

#### b) TFPs and development of livestock farming

Cameroon is a member of the Economic Community of Cattle, Meat and Fish Resources (CEBEVIRHA). A feasibility study for the establishment of an information system on the trading of livestock, meat and fish in Central Africa was carried out in April 2012, at the request of CABEVIRHA and with the support of the United Nations

Economic Commission for Africa (ECA).

#### c) TFPs and development of fisheries

Cameroon is a member of the Regional Fisheries Commission of the Gulf of Guinea (COREP), which promotes sustainable fisheries and the development of trade in fish products in the sub-region of Central Africa.

#### d) TFPs and environmental management

Cameroon is a member of NEPAD, the African Ministerial Conference on the Environment (AMCEN) and the Sangha Trinational Foundation (STN).

At the sub-regional level, due to the existence of shared ecosystems and resources (water, land), Cameroon is involved in a number of sub-regional forums. It is a member of the Lake Chad Basin Commission (LCBC), the Niger Basin Authority (NBA) and the International Commission of the Congo-Oubangui-Sangha Basin (CICOS); the remits of these bodies mainly concern the integrated and concerted management of water and land

resources in the basins of Lake Chad, the Niger and the Congo.

In addition, Cameroon is a member of the following regional organizations: the African Ministerial Conference on Science and Technology (AMCOST) in Central and West Africa, the Conference on the Ecosystems of the Dense Rainforests of Central Africa (CEFDHAC), the Organization for the Conservation of Wildlife in Africa (OCFSA), the International Agency for the **Development of Environmental Information** (ADIE) and the Central African Protected Areas Network (RAPAC).

# II.2.2.2. Other partners and stakeholders involved in food security and nutrition in Cameroon

#### a) Private sector organizations

There are several private sector organizations, notably the Inter-Management Group of Cameroon (GICAM), the Syndicate of Industrialists of Cameroon (SYNDUSTRICAM) and the Movement of Entrepreneurs of Cameroon (MECAM), which group together businesses from all sectors and of all sizes. In the agricultural sector, these organizations represent agribusinesses, exporters and importers of products and inputs, food processing enterprises and equipment manufacturers.

#### b) NGOs and civil society

This category of stakeholders includes interbranch organizations, cooperatives, Common Initiative Groups (CIGs), associations and NGOs.

The main inter-branch organizations active in the rural sector are: the Cameroon Timber Industry Group (GFBC), the Interprofessional Cocoa and Coffee Council (CICC), the Network of Horticultural Operators of Cameroon (RHORTICAM), the National Confederation of Cattle Breeders of Cameroon (CNEB-CAM) and the Poultry Association of Cameroon (IPAVIC).

federations Concerning of producer organizations, a number of regional and federative national structures have emerged in recent years. These include the National Platform of Agro-Sylvo-Pastoral Professional Organizations of Cameroon (PLANOPAC), which was created in 2007 represents 1,300 organizations and (associations, CIGs, unions of CIGs, cooperatives) and a total of 144,000 producers; the National Consultation Forum of Smallholder Farmers' Organizations of Cameroon (CNOP-CAM), which has 16 member organizations in eight regions, approximately 400,000 representing

producers (2008 figures); and the National Confederation of Cotton Producers of Cameroon (CNPCC) to which Sodecoton is gradually transferring the duties linked to the management of producer groups, in particular credit for inputs.

There are more than 120,000 producer organizations nationwide: 115,581 Common Initiative Groups (CIGs), 3,647 unions of CIGs, 59 CIG federations and 42 confederations; CIG 1,853 production cooperatives and 1,575 savings and credit cooperatives, 67 cooperative unions and 11 cooperative federations. The main trade organizations are the National Confederation Tradespersons of of Cameroon (CONAC), the Tradespersons Liaison and Support Centre of Cameroon (CLAAC), the Inter-branch Association of Tradespersons (GIPA) and the National Association of Tradespersons of Cameroon (CNAC), which represent all trades and crafts, particularly in the agri-food sector.

## II.3 FINANCING AND GOVERNANCE OF FOOD SECURITY AND NUTRITION PROGRAMMES

#### **II.3.1 REVIEW OF THE INSTITUTIONAL FRAMEWORK**

#### II.3.1.1. Government actors and their roles

The government actors include key ministries in the fields of food security and nutrition (MINADER, MINEPIA and MINSANTE), ministries that support these fields through complementary actions and certain specialized structures.

The roles of these different stakeholders are outlined below.

#### a) Key ministries in the fields of food security and nutrition

#### ✓ MINADER

The Ministry of Agriculture and Rural Development is responsible for preparing and implementing the government's policy in the areas of

agriculture and rural development. It is in charge of designing strategies and methods to guarantee food security and selfsufficiency, and monitoring their implementation.

It coordinates the management of agriculture-related crisis situations and monitors food security and vulnerability.

In addition, it manages food aid within the framework of its role of liaising between the government and the Food and Agriculture Organization of the United Nations (FAO) and the World Food Programme (WFP), which it performs in conjunction with the Ministry of Foreign Affairs (MINREX). It is in this capacity that it oversees the FAO/WFP Management Committee.

#### ✓ MINEPIA

The Ministry of Livestock, Fisheries and Animal Industries (MINEPIA) is responsible for the development of livestock farming, fisheries and animal industries. Like MINADER, it plays a key role in the following areas:

- increasing uptake of modern animal husbandry techniques;
- controlling food safety;
- promoting the processing of animal and fish products;

- increasing the efficiency of the traditional livestock rearing sector and the emerging modern sector;
- developing the livestock and aquaculture sectors;
- improving pastoral extension;
- health protection;
- developing the livestock and fish industries.

Additionally, it runs several development projects in the pork, poultry, small ruminant, fishing and fish farming sectors. National It oversees the Veterinary Laboratory (LANAVET) of the Mission for the Development of Non-industrial and Maritime Fisheries (MIDEPECAM) and the Maritime Fishing Development Fund (CDPM).

#### ✓ MINSANTE

The Ministry of Public Health's Food and Nutrition Division is responsible for the implementation and coordination of activities in the nutrition sector in Cameroon. There are also other complementary bodies whose work directly impacts nutritional health, such as the Disease Control, Maternal and Child Health and Immunization Division.

#### b) Ministries that support the fields of food security and nutrition

This group of ministries is made up of the Ministry of the Economy, Planning and Regional Development (MINEPAT), Ministry of Public Works (MINTP), Ministry of Transport (MINTRANS), Ministry of Water Resources and Energy (MINEE), Ministry of Small and Medium-sized Enterprises, Social Economy and Handicrafts (MINPMEESA), Ministry of Mines, Industry and Technological Development (MINIMIDT), Ministry of Trade (MINCOMMERCE), Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED), Ministry of Finance (MINFI), Ministry of Territorial Administration and Decentralization (MINATD), Ministry of Youth and Civic Education (MINJEC), Ministry of State Property, Surveys and Land Tenure (MINDCAF), Ministry of Scientific Research and Innovation (MINRESI) and Ministry of Higher Education

(MINESUP).

### c) Other specialized structures dealing with food security and nutrition in Cameroon

These are: the Chamber of Agriculture, Fisheries, Livestock and Forestry (CAPEF), the national agricultural research system, and the universities and training colleges.

#### ✓ The Chamber of Agriculture, Fisheries, Livestock and Forestry (CAPEF)

CAPEF is a consular chamber that constitutes the advisory and professional body that protects the interests of the sector vis-à-vis the public authorities. In 2009 (decrees 2009/249 and 2009/250) it took on certain roles and tasks that had previously been devolved to the public authorities, particularly in the areas of cooperation, producer training and organization of agricultural and pastoral events.

#### The national agricultural research system

Cameroon's agricultural research system relies on the Institute of Agricultural Research for Development (IRAD), which is supervised by MINRESI. The Institute functions with the support of international research centres (CIRAD, CIFOR, IRD, ICRAF, IITA, etc.). The system has suffered greatly from the economic crisis that has been affecting Cameroon since the mid-1980s. A loan of 6 billion CFA francs granted by the AFDB in 2002 made it possible to rebuild the institutional capacity of the IRAD with a view to strengthening the links between research and agricultural extension through demand-driven research.

More recently, under the Debt Reduction and Development Contract (C2D) between France and Cameroon, the French Development Agency (AFD) has financed ten IRAD research projects for a value of 5.2 billion CFA francs, within the framework of the Agricultural Research Support (PARA) implemented Programme by MINRESI. Dissemination of the research findings to users (crop farmers, livestock farmers) remains a constant concern.

#### ✓ Universities and training colleges specialized in agriculture and nutrition

The universities that offer specific training that benefits the rural sector are: The University of Ngaoundéré with the School of Veterinary Medicine and Sciences (ESMV) and the National School of Agriculture and Food Industries (ENSIAA), the University of Douala with the Institute of Fisheries Science in Yabassi, the University of Dschang with the Faculty of Agricultural Sciences (FASA), the University of Maroua with the Higher Institute of the Sahel (ISS), the Universities of Yaoundé I and II, University of the Mountains (UDM), the University Institute of Wood Technology of Mbalmayo and Garoua Wildlife School, the University of Buea, the University of Bamenda, the Catholic University of Central Africa and the University Institute of the

Diocese of Buea.

Agro-pastoral training colleges under the supervision of MINADER and MINEPIA offer qualifications for agro-pastoral entrepreneurs, agro-pastoral advisors, and water resource management and water supply technicians. We note that the support programme for the renewal and

#### Development programmes/projects

There are social rehabilitation programmes and projects like the Rumpi Area Participatory Development Project in the Southwest Region, Grassfield Decentralized and Participatory Rural Development Project in the Northwest, the Mont Mbapit Region Rural Development Project, the Rural Development Programme of the Northwest, East and Far North Regions, the

#### ✓ Decentralized Territorial Authorities (CTDs)

The transfer of powers from the state to the territorial authorities is governed by Law No. 2004/017 of 24 July 2004 on decentralization. The responsibilities of the local authorities are specified in Law No. 2004/018 of 22 July 2004 and concern local

#### II.3.1.2. Private sector organizations

The private sector organizations mentioned previously are the same that are involved in financing and governance of food security and nutrition.

The private sector contributes to the

development of vocational training in the sectors of agriculture, livestock farming and fisheries receives funding under the Debt Reduction and Development Contract (C2D) concluded with the AFD. Despite the large number of training centres and universities mentioned above, the training of producers remains insufficient.

Mungo-Nkam Project and the Mandara Mountains Development Mission. Many rural development and productivity enhancement initiatives that strengthen the four food security and nutrition pillars are underway. The logical framework for identifying food security initiatives developed within ministerial departments is presented in the annex.

development and improvement of inhabitants' living conditions. The local authorities also have some powers relating to the promotion of livestock and fish production activities.

implementation of agricultural management activities, studies, land development activities, value addition and processing of agricultural products. Small farmers account for 75% of the sector.

#### a) The private sector in the area of production

The private sector contributes to the performance of agricultural management activities in various capacities, including studies, agricultural development, promotion and processing, as well as other

activities linked to rural development. Moreover, it should be noted that smallscale farmers account for 75% of actors in the sector. There are also numerous, varied agribusinesses operating in production, such as Cameroon Development Corporation (CDC), Société Camerounaise des Palmeraies (SOCAPALM), Société des Palmeraies de la Ferme Suisse, Société de Développement du Coton (SODECOTON), Maïserie du Cameroun (MAISCAM), Plantations Haut Penja (CHP), Société d'Expansion et de Modernisation de la Riziculture de Yagoua (SEMRY), the Upper Noun Valley Development Authority (UNVDA), and so on.

State budget allocated to the agricultural sector represents 3.52% of the national budget in 2016 while it was 3.75% in 2015

#### b) Funding agriculture

#### ✓ State budget

Until the agricultural bank comes into operation in Cameroon, the agricultural sector is essentially financed by the state budget and contributions from the private sector, particularly small farmers. The table below shows the recent evolution of the state budget for agriculture and health. *Table 9:* Change in funding for agriculture and livestock farming within the national budget

Table 4: Evolution of the share of the budget of agriculture and livestock in the national budget

Public investment dudget (millions of F CFA)	2015	2016
MINADER (1)	108.692	110.162
MINEPIA (2)	31.712	39.113
MINSANTE (3)	207.066	236.167
NATIONAL (N)	3.746.600	4.234.700
Ratio (1+2)/(N)	3,75%	3,52%
Ratio (1+2+3)/(N)	9,30%	9,10%

**Source:** Report on Cameroon's Finance Act (2016)

Analysis of the above table reveals that the increase in state funding allocated to the agricultural sector is low and is actually declining as a percentage of the national budget. Indeed, it accounts for 3.52% of the national budget in 2016 compared with

#### 3.75% in 2015.

Furthermore, with the Maputo Declaration, The African heads of state and government undertook to dedicate 10% of their national budgets to agriculture and adopted the ComprehensiveAfricaAgricultureDevelopmentProgramme(CAADP).However, Cameroon is lagging behind with

#### ✓ Private funds

Cameroon's agricultural and rural sector is primarily financed by initiatives of microfinance institutions (MFIs). Indeed, there are not many banks that finance activities in the rural sector. The main exception is the consortium of the Afriland, BICEC, SGBC and Atlantique banks which, in October 2013, provided a loan of 50 billion CFA francs, negotiated with GICAM, for SMEs. With regard to MFIs, at the end of 2012, the Central African Banking Commission (COBAC) recorded 509 MFIs in Cameroon (compared with 495 in 2010 and 460 in 2008). Within the meaning of the Central African Economic and Monetary Community (CEMAC) regulations, at the end of 2012, there were six networks grouping together 269 MFIs (almost 67% of which were in the CAMCCUL network). The Community Growth Mutual Funds known by the French abbreviation MC2 (Mutuelles Communautaires de Croissance) are licensed as independent MFIs but operate within an association (made up of 55 registered MC2s with a total of 95 branches in 2012).

COBAC reported that, as at 31 December 2012, licensed MFIs had 454.5 billion CFA

#### c) Inter-branch organizations

The main inter-branch organizations in the rural sector are the Network of Horticultural Operators of Cameroon (RHORTICAM) and

d) Federations of producer organizations

In Cameroon, a number of regional and national federative structures have emerged in recent years. These are: the its implementation and the rate of 3.5% is well below the Maputo target.

francs of deposits, 239.8 billion CFA francs of outstanding loans (accounting for 15% of the deposits and outstanding credit in the banking sector as a whole) and a total balance sheet of 480.6 billion CFA francs. These figures have been increasing since 2010. However, the collapse of three major institutions (COFINEST, FIFFA and CAPCOL) has slowed down the growth of the sector and explains the financial largely aggregates in 2011. Furthermore, with regard to tier-one MFIs, which finance rural activities and are backed by banks, we note the Self-Reliant Village Savings and Credit Funds (CVECAs) backed

by BICEC, the Community Growth Mutual Funds (MC2s) backed by Afriland, the Financial Mutual Funds for African Women (MUFFA) backed by Afriland, and the Cameroon Cooperative Credit Union League (CAMCCUL) backed by UBC. Meanwhile, Compagnie Equatoriale de Crédit et d'Investissement (COMECI) is an independent tier-two MFI. However, it is important to note that the government has set up the Rural Microfinance Development Support Project and also plans to set up an agricultural bank.

the Poultry Association of Cameroon (IPAVIC).

National Platform of Agro-Sylvo-Pastoral Professional Organizations of Cameroon (PLANOPAC), the National Consultation women's group that transports products from production areas to urban

**11.3.2 COORDINATION MECHANISMS** 

For the coordination of activities aimed at achieving food security, the Cameroonian Government has established a major consultation and monitoring tool: the Interministerial Committee on Food Security (CISA).

There are also other coordination bodies covering the food security sector in the public administration. These bodies are presented below.

For implementation of food security policies, in 2009, the Cameroonian Government set up the Inter-ministerial Committee on Food Security (CISA), made up of all the ministries involved in food security.

For performance of its duties, the CISA is assisted by a National Technical Committee

#### **Grassroots producer organizations**

Smallholder

Organizations of Cameroon (CNOP-CAM)

In Cameroon, there are more than 120,000 producer grassroots organizations nationwide: 115,581 Common Initiative Groups (CIGs), 3,647 unions of CIGs, 59 CIG federations and 42 CIG confederations.

#### Trade organizations

Forum

of

The main trade organizations are the National Confederation of Tradespersons of Cameroon (CONAC), the Tradespersons Liaison and Support Centre of Cameroon (CLAAC), the Inter-branch Association of

#### ✓ Associations

In this category, we note the Citizens' Association for the Defence of Collective Interests (ACDIC), the Food Sovereignty Coalition (COSAC) and the Bayam-Sellam

Farmers'

In terms of cooperatives, there are 1,853 production cooperatives and 1,575 savings and credit cooperatives, 67 cooperative unions and 11 cooperative federations.

Tradespersons (GIPA) and the National

Association of Tradespersons of Cameroon

(CNAC), which represent all trades and

Mutual Fund (MUBASE). MUBASE is a

markets.

crafts, particularly in the agri-food sector.

and the National Confederation of Cotton Producers of Cameroon (CNPCC).

food

### II.3.2.1 The Inter-ministerial Committee on Food Security (CISA)

by the Secretary-General of chaired MINADER. It is made up of the Secretaries-General of the CISA member ministries, representatives of the Prime Minister's office, the FAO, the WFP, UNICEF and the donors, the Director General of IRAD, the Director of the Cereals Board, the chair of the FAO/WFP Management Committee and

two representatives of civil society.

#### II.3.2.2 Other similar committees

- a) The steering committee responsible for supporting and monitoring implementation of the Rural Sector Development Strategy Paper (MINEPAT)
- b) The National Agricultural Investment Plan Coordination and Monitoring Committee (MINADER)
- c) The National Risk Observatory
- d) The emergency and disaster or major risk response system

#### **II.3.2.3** Coordination in the nutrition sector

In 2014, the government set up an interministerial committee to fight malnutrition in the northern regions and the East. The responsibilities of this committee include identifying specific actions to be carried out, developing multi-sectoral programmes involving different stakeholders, ensuring the mobilization of internal and external resources, and performing monitoring and evaluation of the integration of interventions to reduce malnutrition in the different sectors25. Advocacy activities are underway to extend the committee's work to all ten regions. There is also a Nutrition Working Group that meets each month.

#### **II.3.3. MONITORING AND EVALUATION MECHANISM**

#### II.3.3.1. Inter-ministerial Committee on Food Security

#### II.3.3.2. Nutrition monitoring

Every three to four years, a demographic and health survey (DHSs) and multiple indicator cluster survey (MICS) is carried out by the National Institute of Statistics with the support of the partners. These surveys provide information about the nutritional situation of women and children. Moreover, through the SMART survey conducted in certain regions such as the North, Far North, Adamawa and East, UNICEF participates in monitoring the mortality rate and nutritional status of women and children.

<sup>25</sup> Decree establishing an inter-ministerial committee to fight malnutrition in the northern regions and the East.

#### CONCLUSION

This chapter showed that, in terms of policy and strategy, government efforts in relation to food security and nutrition contribute to improving agricultural production and, consequently, protect the population against food insecurity. However, it must be noted that the budget allocated to this area falls well short of the target set in the Maputo Declaration. Indeed, only 3.5% of the national budget is spent on agriculture, while the African heads of state and government agreed to aim for 10%.

Furthermore, until the agricultural bank created by a decree of the head of state comes into operation, food security and nutrition initiatives are largely being financed by the private sector.

We also note the lack of a framework law on agriculture in Cameroon. This exacerbates the difficulty of coordinating and monitoring food security in Cameroon.

# CHAPITRE III: FOOD SECURITY AND NUTRITION CHALLENGES TO BE OVERCOME IN CAMEROON

#### **INTRODUCTION**

The main challenges related to food security and nutrition in Cameroon can only be overcome through a number of government reforms. The necessary reforms are legislative, regulatory and institutional. In addition, for greater effectiveness, the partners of the government must contribute to achieving the objectives set.

# **III.1 REGULATORY AND INSTITUTIONAL CHALLENGES**

These are the legislative, regulatory and institutional challenges that need to be overcome in the field of food and nutrition security.

# III.1.1 Legal challenges

## **III.1.1.1** Challenges concerning the legislative framework for food security

Cameroon does not yet have a law governing food security. A bill on this issue has been pending for several years. The

same applies to legislation on the Pastoral Code and the Agriculture Code

# III.1.1.2 Challenges concerning the regulatory framework for nutrition

#### Harmonization of regulations

The regulatory framework in force is mainly based on Decree No. 2009/0045/PM of 14 January 2009 on the organization of the institutional framework for implementation of the National Food Security Programme (NFSP). One of the tasks set out in the NFSP is to contribute to improving the nutritional status of the population.

# **III.1.2 Institutional challenges**

#### III.1.2.1 Coordination body

The Cameroonian Government has three food security coordination and monitoring bodies; two of them are attached to the Prime Minister's office (CISA, NAIP Steering Committee) and the third is attached to MINEPAT (SDSR Steering Committee). With that institutional arsenal there is a risk of duplication of responsibilities and apathy to repeated appeals.

In fact, in the seven years since it was established in 2009, the CISA has only met twice even though it is supposed to meet annually. The reason given for deferring the sessions of this body concern the prior reformulation of the NFSP. The SDSR steering committee, which met regularly between 2005 and 2013 and produced annual reports on the implementation of the Rural Sector Development Strategy Paper, has not met since it was restructured in 2014. Meanwhile, the NAIP steering committee has never met, as the heads of the executive bodies have yet to be appointed.

# III.1.2.2 Production of agricultural statistics

The inadequate collection of statistical data about agriculture and nutrition in Cameroon limits the formulation of development policies in this area. Indeed, the reference information available dates back to the last General Census of Agriculture and Livestock in 1984. However, recent developments aim to remedy this situation. A presidential decree of 9 June 2015 ordered that a third The existence of food security issues and food crises is obviously not influenced by whether or not there is an NFSP. It is essential for these issues to be regularly addressed in the sessions of the different coordination bodies, particularly taking into account the context of insecurity that prevails in some regions of the country.

Census of Agriculture and Livestock be undertaken. The regular performance (every 10 years) of these censuses is, therefore, not observed and the measures to catch up on the delay lack diligence<sup>26</sup>. In this context, any attempt to evaluate food insecurity and identify measures to remedy it is questionable.



The Food Security Assessment in Cameroon shows that, in general, Cameroon has the natural assets to produce sufficient quantities and quality to meet the food needs of its population.

26 Eleven months after the signing of the decree, the census had still not been commenced.

## III.1.2.3 Governance of nutrition

According to the Hunger and Nutrition Commitment Index (HANCI, 2014) Cameroon ranks 29th out of 45 countries in terms of reducing malnutrition. Hence, the problem of management of Cameroon's policy nutrition is rather pressing. there Moreover, is no committee responsible for the national coordination of nutrition actions in Cameroon. There is,

however, an inter-ministerial committee for nutrition that only covers four regions with high rates of malnutrition.

In addition, the GESP does not stress the importance of the question of nutrition as a strategic objective of development. This results in dilution of nutritional aspects in the food security strategy.

# III.2 OPERATIONAL CHALLENGES IN RELATION TO THE PILLARS OF FOOD SECURITY AND NUTRITION

The assessment of food security in Cameroon reveals that, in general, Cameroon has the necessary natural assets to produce a sufficient quantity and quality of food to meet the needs of its population. While the country is self-sufficient in terms of crop production, according to the criteria of the FAO, and even exports to other countries in the sub-region, there are deficits in its output in certain sectors, particularly the fisheries sector. There are also numerous food insecurity disparities in the northern regions and the East Region.

Food security is less common in the southern part of the country. Furthermore, it is higher in rural areas than in urban areas.

Several factors can weaken this situation, including the low level of growth of agricultural production compared with demographic growth, climate change and hazards, cross-border crises, and shortcomings in the regulatory and institutional framework.

# III.2.1 Challenges concerning food availability

Although food production is increasing, the rate of this growth is insufficient to satisfactorily meet domestic demand and demand from neighbouring countries. It should also be pointed out that livestock and fish production has stagnated and percapita availability of meat is falling.

The causes of all these shortages include outdated cultivation methods, the break in the link between research and extension, the ageing of the workforce and the shortage of finance.

#### **III.2.2 Challenges concerning food accessibility**

Access to a sufficient quantity and quality of food is limited by poor access to production

areas and low purchasing power.

# **III.2.3** Challenges concerning food supply stability

The food supply fluctuates according to the seasons due to Cameroon's low storage and processing capacity. Moreover, there are no

public food stocks apart from those that the Cereals Boards uses to regulate the markets in the northern part of the country.

#### **III.2.4** Challenges concerning food utilization

Since 2003, average per-capita calorie consumption has been above the recommended average of 2,400 kcal/cap

(FAO). However, as indicated above, there are several disparities in the food security indicators.

The government's actions in favor of food security are unbalanced, as evidence, between 2003 and 2012, 65.9% of funding was allocated to availability, 24.2% to access, 8.2 % to stability and 1.7% to use

#### III.2.5 General challenges

The government is taking a number of measures to strengthen food security. Numerous programmes and projects are being implemented, and coordination frameworks have been created; yet, these measures not proving very effective. We also note the non-existence of a law governing food security and nutrition; the lethargic functioning of the coordination and monitoring/evaluation committees; and the fact that the General Census of Agriculture and Livestock - the basis of reliable evaluation and planning - has still not been carried out. Furthermore, government

#### **III.2.5.1 Institutional challenges**

At the institutional level, the lack of a framework law organizing the agriculture sector and setting up the Observatory on Climate Change constitutes a fundamental challenge in the area of food security and nutrition in Cameroon. Added to that is the absence of reliable, up-to-date statistical actions to promote food security are unbalanced: between 2003 and 2012, 65.9% of funding was assigned to availability, 24.4% to access, 8.2% to stability and 1.7% to utilization.

Despite the importance that the government appears to give to ensuring food security for the population, strong measures have yet to be taken to reinforce and stabilize food security in Cameroon. In the private sector, isolated, piecemeal activities are carried out, but large-scale programmes are still uncommon.

data on agriculture and livestock farming due to the fact that the General Census of Agriculture and Livestock has not been carried out. Moreover, the poor coordination of the various programmes and projects and the fact that the CISA does not function effectively poses a challenge with regard to monitoring and evaluation in the field of food security and nutrition in Cameroon.

In addition, effective implementation of the different sub-programmes of the NFSP and

# **III.2.5.2 Operational challenges**

At the operational level, strengthening the intervention capacity of the programmes and projects addressing the modernization of the agricultural production apparatus is a challenge to improve national agricultural supply. Ensuring the availability of and access to inputs for small-scale farmers is a major challenge that impacts agricultural productivity.

The other challenges to be overcome include: lack of finance, poor quality technical support, the structuring of actors with a view to boosting research and innovation, improving the standard of living to benefit young people and women, improving access to and from production areas, developing infrastructure for the storage, processing and preservation of agricultural and livestock products.

Some of the challenges in relation to

# **III.2.6 Regional challenges**

the allocation of sufficient resources to the food security pillars represent challenges to the stability of food security.

nutrition are outlined below.

- A lack of financial and material resources for implementation of the programmes. The state allocates limited resources to the implementation of nutrition activities. There are no budget lines specifically dedicated to nutrition. For most activities, the funding comes from external partners and is insufficient.
- A lack of human resources. Nutritionists are poorly represented, particularly at the regional and community levels. We also note the absence of a professional body for nutrition with civil-service status.
- Poor multi-sectoral coordination in the implementation of nutrition-specific and nutrition-sensitive interventions.

The participatory consultations with the various stakeholders in the regions at high risk and low risk of food insecurity revealed that a number of challenges need to be addressed in order to achieve the goal of zero hunger.

#### III.2.6.1. East Region

The regional consultation in the East revealed that approximately 13 programmes and projects have been implemented in the field of food security and nutrition. The difficulties encountered in implementing those programmes and projects include: (1) the low level of food production, (2) exacerbation of agropastoral conflicts, (3) poor target group adhesion, (4) poor access to production areas and (5) a lack of finance.

Indeed, certain challenges need to be overcome, namely:

✓ increase production and improve the

accessibility and diversity of food products;

- ✓ empower the target groups;
- ✓ promote beneficiaries' adhesion to the programmes;

# III.2.6.2. Far North Region

In this northern part of the country there are a number of problems in relation to food security and nutrition, in particular: (1) the poor quality and quantity of production, (2) a shortage of food, (3) the insecurity of the population due to attacks, (4) the extreme climatic variation and conditions, (5) insufficient storage and utilization of food products, (6) export of food products to Nigeria and Chad and (7) shortages of water and energy. Consequently, the following challenges have been identified:

 $\checkmark\,$  advocacy directed towards donors

# III.2.6.3. North Region

The weaknesses observed with regard to food security and nutrition in the North Region mainly concern: (1) the reduction of grazing land, (2) poor availability of quality seeds, (3) poor access to production areas, (4) mass exporting of food stocks during the lean season, (5) the security problems in the production areas and (6) the low level of agricultural mechanization.

Thus, the main challenges in the North Region concerning food security and nutrition include:

# III.2.6.4. South Region

In the area of food security and nutrition, 27 programmes are currently being

- ✓ organize strategies to improve access to remote areas;
- ✓ meet the food needs of all the target groups and reduce malnutrition rates in the areas of intervention.

with a view to mobilizing additional resources to cope with the influx of refugees;

- regulation of informal exports of food products to neighbouring countries with the involvement of the administrative authorities concerned;
- ✓ awareness-raising and ongoing capacity-building for the management committees of village and community granaries;
- ✓ adoption of water management techniques.
- ✓ promotion and extension of fodder crops;
- ✓ strengthening of links between the results of agricultural research and extension among producers;
- ✓ regulation of mass exports of foodstuffs by the competent administrative authorities;
- support CTDs and cooperatives through agricultural machinery pools.

implemented in the South Region. The shortcomings mainly concern: (1) the

limited geographical coverage of the interventions, (2) limited ownership of the programmes by the beneficiaries, (3) poor access to production areas, (4) duplication of the interventions of programmes in the same regions, (5) limited access to energy and (6) limited access for women to the programmes.

Thus, the main challenges in the South

# III.2.6.5. Northwest Region

The shortcomings identified in relation to food security and nutrition in the Northwest, West and Southwest Regions primarily concern: (1) a lack of communication about the programmes being implemented, (2) the language barrier, (3) post-harvest losses, (4) poor access to production areas, (5) insufficient nutrition education and (6) the mass export of foodstuffs to Nigeria.

Thus, the main challenges in the Northwest, West and Southwest Regions concerning food security and nutrition include: Region concerning food security and nutrition include:

- increase the awareness and involvement of the programme beneficiaries at all levels of interventions;
- ✓ prepare a regional food security and nutrition guide.
- communication about the programmes implemented in the region;
- ✓ setting up post-harvest supply arrangements;
- ✓ implementation of nutrition education and training programmes;
- ✓ controlling exports to the neighbouring countries.

# III.3 TARGETING REGIONS AT HIGH RISK OF FOOD INSECURITY IN CAMEROON

Following the regional consultations carried out in the regions with high levels of food insecurity, complementary actions were recommended by actors in the chain with the aim of addressing the shortcomings identified.



## Table 11 (East Region)

# The table below lists some actions recommended for programmes and projects that contribute to food and nutrition security in the East Region.

#### **Complementary actions**

- Raise the awareness of all stakeholders;
- Increase collaboration with the technical services for the objective identification of target groups;
- Establish monitoring committees (watch units);
- Involve the direct beneficiaries in the design of programmes;
- Increase access to finance;
- Simplify and facilitate procedures for accessing finance;
- Set up a consultation platform between the government, the CTDs and civil society;
- Improve the functionality of the existing structures and create new structures;
- Upgrade and open transportation routes;
- Increase financing;
- Provide health coverage (increase, upgrade and equip healthcare facilities and staff them with qualified personnel);
- Build on-call accommodation for healthcare professionals;
- Improve the security and empowerment of refugees;
- Increase the quality and quantity of production through training and information on new agricultural techniques, the provision of improved seeds and species and other agricultural inputs, as well as increased mechanization;
- Increase preservation and processing units for local produce;
- Implement a strong campaign to raise people's awareness about organizing into groups (associations, mutual societies, cooperatives, etc.) in order to benefit from different types of financing to improve production quantity and quality;
- Make funding sources more widely available;
- Undertake an objective selection of the organizations to be financed by the programmes;
- Closely support the recipients of funding;
- Ensure effective involvement of the administrative, municipal and traditional authorities in all programmes implemented in a given place;
- Improve cooperation and coordination between the different programmes on the ground;
- Promote the purchase and use of local products by the different programmes;
- Ensure that the different programmes take into account the aspirations of the local populations contained in the municipal development plans;
- Set up and increase the use of feeding centres;
- Make WASH kits available at health centres;
- Facilitate the access of women and young people to land ownership;
- Integrate the host communities into programmes to support refugees.

Source: The authors, based on the regional consultations in the East (2016)

# Table 12 (Far North Region)

Characterized by the persistence of food insecurity, primarily due to weather hazards and the actions of Boko Haram, the actors in charge of implementing food security programmes and projects have proposed the complementary actions listed in the table below.

#### **Complementary actions**

- Train farmers, and increase mechanization and access to agricultural inputs (improved seeds, fertilisers, pesticides);
- Improve cropping systems and production systems (soil cultivation, organic manure, soil enrichment);
- Promote the diversification of food crops;
- Promote good water management, the spread of irrigated agriculture, fishing and livestock farming;
- Promote land redistribution;
- Improve land tenure legislation (dissemination of the new land tenure law);
- Create agricultural villages;
- Facilitate access to technical equipment;
- Build the capacity of producers in relation to processing and preservation techniques;
- Facilitate access to credit and to small equipment;
- Improve access to and from production areas (maintain and create new roads, improve packing methods);
- Organize producers into cooperatives for the marketing of produce;
- Structure the marketing of produce by sector;
- Promote the production of fodder crops to feed livestock;
- Create chick production farms;
- Transform traditional livestock farming into modern livestock farming;
- Ensure genetic improvement of cows;
- Promote the creation of modern dairy farms;
- Develop the production areas by creating modern farms in all sectors (beef, small ruminants, pork, poultry, milk and non-conventional livestock);
- Promote the empowerment of women;
- Set up a consultation platform between the government, the CTDs and civil society;
- Improve the security and empowerment of refugees;
- Integrate the host communities into programmes;
- Create irrigation channels and reservoirs like in Maga;
- Organize and control food exports;
- Finance water and energy projects;
- Arrange for negotiation between input dealers and the Ministry of Trade to set affordable prices for agricultural inputs;
- Increase the number of latrines for host communities and refugees;
- Consult the beneficiary populations to ascertain their dietary preferences;
- Ensure that programmes and interventions are fairly distributed between the refugees and the local population;
- Upgrade existing roads and build new roads to improve access;
- Facilitate the acquisition of improved stoves;
- Help empower refugees and enable them to become food self-sufficient.

**Source**: The authors, based on the regional consultations in the Far North (2016)

# Table 13 (North Region)

The actors responsible for implementing food security programmes and projects in the North region have proposed the complementary actions listed in the table below.

#### **Complementary actions**

- Review customary land tenure practices;
- Speed up the agrarian reform currently underway;
- Improve access to project finance;
- Make basic seeds available, through research;
- Promote seed and plant multiplication by seed producers;
- Improve the organization of the distribution of seeds, plants and fertilisers;
- Complement the work of Sodecoton in relation to improving access;
- Provide effective means to the CTDs within the framework of decentralization;
- Ensure regulation by the competent authorities of large-scale exports of foodstuffs;
- Support existing technical and financial strengthening programmes to reduce major epizootic diseases;
- Promotion of fodder crops by the CTDs;
- Create on-site processing units;
- Promote good storage techniques at the individual and community levels (storage warehouses, granaries);
- Consider developing solar energy techniques;
- Train the members of the monitoring committees;
- Promote income-generating activities among young people;
- Coordination by the administrative authority of intervention activities to improve coordination at the local level;
- Build reservoirs to collect water for agriculture, livestock farming and human consumption;
- Develop a spirit of cooperation among small farmers to increase the income and negotiating power of producers;
- Support CTDs (through agricultural machinery pools) and cooperatives with agricultural mechanization;
- Increase the funding of the Cereals Board;
- Promote the processing of cereals to generate added value and contribute to reducing postharvest losses, which will increase availability;
- Advocate for MINFI and MINEPAT to exempt the Cereals Board from VAT;
   Support Sodecoton, which is contributing to food security (crop rotation, use of inputs, etc.).

Source: The authors, based on the regional consultations in the North (2016)



# CHAPITRE IV: IDENTIFICATION OF STRATEGIC FOCUSES AND PRIORITY ACTIONS WITH A VIEW TO ACHIEVING THE GOAL OF ZERO HUNGER IN CAMEROON

# **INTRODUCTION**

The strategic focuses and resultant priority actions have been defined based on both the shortcomings observed in implementation of the programmes and the participatory regional consultations that involved all the national stakeholders and partners in the field of food security and nutrition.

The regional consultations, which were coordinated by the government, were essentially based on the thematic approach and involved professional bodies, NGOs, civil society, the partners and the sectoral government bodies concerned.

The actions resulting from those consultations and the shortcomings observed in food security and nutrition are presented in the form of a table setting out the activities to prioritize, together with performance indicators and the stakeholders involved.

# IV.1. STRATEGIC FOCUSES IN RELATION TO FOOD SECURITY AND NUTRITION IN CAMEROON

# IV.1.1 Strategic focuses

The strategic objective is to achieve the goal of zero hunger by 2030 in Cameroon. It should be underlined that this objective is rooted in the vision of making Cameroon an emerging country by 2035, the Growth and Employment Strategy Paper (GESP) and the rural sector strategy.

To this end, for each of the five objectives of the zero hunger challenge, the strategic focuses outlined below have been identified:

# Access to adequate food all year round for 100% of the population

- Increase the income of rural households in the agricultural sector;
- Build the resilience of vulnerable sectors of the population and promote social protection of the agricultural population;
- Organize small-scale family farmers (SFFs) into producer associations and farmer clubs by agro-ecological zone;
- Scale up the development of specific skills in the area of agriculture.

# 100% increase in the productivity and income of small-scale farmers

- Continue the School Feeding Programme and targeting of priority education zones through the establishment of school canteens that
- use locally produced food;
- Increase mechanization and the use of agricultural inputs;

centres, capacity-building of actors); Sti

Target priority education zones with

regard to food security through the use

Improve the management of acute

malnutrition in high-risk regions (timely

provision of a sufficient quantity of

nutrition inputs, creation of treatment

Zero children under two years of age suffering from stunting

- Promote good infant and young child feeding (IYCF) practices;
- Fight micronutrient deficiencies through supplementation, fortification and bio-

#### All agricultural food systems are sustainable

- Promote diversified and sustainable agriculture;
- Inclusive financing of agriculture;
- Promote and expand the digital

# Zero loss or waste of food products

- Reduction of post-harvest losses.

fortification;

of local produce.

- Promote nutrition education and practices (behavioural change communication);
- Strategic advocacy for nutrition with the aim of increasing political commitment and social participation, and increasing public funding for nutrition.

economy in the agricultural sector;

- Protect agricultural land;
- Increase investment in the agricultural sector.



# **GENERAL CONCLUSION AND RECOMMENDATIONS**

The main objective of the review was to identify the challenges to be overcome in order to achieve the goal of "zero hunger" in Cameroon by 2030. Therefore, the key results of the review and the challenges to be overcome will now be presented, as will the resultant recommendations.

# 1. Main results concerning food security and nutrition in Cameroon

a) With regard to food security, approximately 15.4% of the population suffers from hunger in Cameroon (INS, 2015). Food insecurity is on the rise in the Far North and Adamawa Regions. Indeed, according to the WFP EFSA, during the period from 2011 to 2015, the percentage of food insecure households rose from 17.8% to 35.5% in Far North and from 7.1% to 18.7% in Adamawa.

b) Concerning nutrition, it should be noted that malnutrition is very high in Cameroon. With regard to the nutritional status of children, it emerged that more than 31% of children aged under five years suffer from growth retardation, more than 5% suffer from emaciation and approximately 15% are underweight.

Meanwhile, food availability has improved significantly, rising from 2,200 kcal/cap/day to over 2,550 kcal/cap/day, well exceeding the target level of 2,400 kcal/cap/day (FAO). In addition, 74.37% of the cereals consumed in Cameroon are produced locally, while 25.81% are imported. Livestock and fish production remains insufficient, with only 50% of the fish products consumed being locally sourced.

Certain shortcomings and constraints identified in relation to food security and nutrition are mentioned below:

c) Concerning constraints linked to food availability, it should be noted that cultivation techniques have barely been modernized, with insufficient use of new technologies, and there is limited access to land as 66% of land is under customary management. In addition, access to finance is limited, with only 4.4% of family farmers have access to it.

d) Regarding food accessibility, the difficulty of accessing the market due to the isolated nature of the production areas and the low purchasing power of households was noted.

e) In relation to the constraint linked to food stability, it was noted that postharvest losses account for more than 25% of agricultural production and there is also a lack of infrastructure for food storage and conservation.

f) Concerning the constraint linked to the utilization of food products, the problem is a question of nutrition education. It is exacerbated by the low education level of women (more than 54.4% of women do not receive education).

g) With regard to the National Agricultural Investment Plan (PNIA) prepared within the framework of the Comprehensive Africa Agriculture Development Programme (CAADP) adopted by the African Union in 2003 and according to which the heads of states committed to dedicating 10% of their national budgets to agriculture, it noted that should be despite the government's efforts to mobilize resources for agriculture, the share of the national budget currently allocated to agriculture is around 3.5%.

h) More than 60 programmes and projects have been identified in the field of food security, one of the most prominent being the National Food Security Programme

# 2. Food security and nutrition challenges in Cameroon

The challenges identified are regulatory, institutional and legal on the one hand, and operational on the other.

a) In terms of the regulatory and institutional challenges, it should be noted that no activity in the general interest can flourish without normative, regulatory or institutional codification. In this respect, a major challenge would be the adoption of a framework act on agriculture in Cameroon.

b) From a regulatory perspective, Cameroonian legislation concerning food security should be harmonized.

c) With regard to the monitoring of government programmes that promote food security, the need for a coordination body that can hold regular sessions to ensure the coherence and coordination of said programmes was noted.

d) The challenge in relation to the regular, periodic production of agricultural statistics in Cameroon is clear as no policy can be effectively implemented without statistical data on agriculture. In Cameroon, the reference information for agriculture dates back to 1984.

e) In the area of nutrition, the main challenge is the long-term commitment of the government to fight malnutrition through its membership of the SUN (Scaling Up Nutrition) Movement.

The other challenges within the food

(NFSP), which has targeted more than 366,600 households, reaching a total of 2,200,000 individual beneficiaries. Of the NSFP budget, 65.9% is assigned to the food availability pillar, 24.2% to access, 8.2% to stability and 1.7% to utilization.

security and nutrition pillars include:

- Improving fish production, which remains insufficient given the country's import dependency ratio (IDR = 63%);
- With regard to accessibility, improving access to and from production areas;
- In terms of stability, establishing a system for the storage of public and private foodstuffs, in order to ensure the availability of certain products throughout the year. Added to that is the challenge of processing agricultural products;
- Concerning the utilization of food to achieve average consumption of 2,400 kcal/cap/day, a major challenge is supporting demand through more effective targeting of poor households;
- The challenges arising from the regional consultations on food security and nutrition include:
- In the regions where there is a high risk of food insecurity and malnutrition, such as the North, Far North and East Regions, the challenges include increasing and diversifying food production taking into account climate change (1); the regulation of informal exports of food products to neighbouring countries (2); the promotion and popularization of agricultural mechanization (3); the use of water techniques (4); management the promotion of women's education (5);
- In regions where there is a low level of

food insecurity, the challenges include improving access to production areas (1); promoting communication in relation to food security and nutrition programmes and initiatives (2); and providing nutrition education (3).

# 3. Lessons learned from the review of the goal of Zero Hunger in Cameroon by 2030

a) Overall, the national supply of food products is sufficient to cover the needs of the population; however, major problems result from huge post-harvest losses and insufficient measures to support demand of poor households.

b) Malnutrition is a national problem and the main cause is the lack of nutrition education. However, it is also a multisectoral problem that requires the involvement of several actors and the allocation of substantial resources.

c) There needs to be a legal framework to govern food security. A corollary to this is the large number of government programmes and actors involved, raising the problem of coordination and coherence in the implementation of those programmes.

d) Mobilization of financial resources dedicated to the agricultural sector is inadequate. Despite the government's efforts, the share of the national budget allocated to agriculture is still well short of the target of 10% set in the Maputo Declaration (2003) and reaffirmed by the Malabo Declaration (2014).

e) The digital economy is an indispensable tool for the modernization of agriculture in Cameroon.

f) The existence of areas exposed to climate-related risks and insecurity linked to the influx of refugees from neighbouring countries requires the establishment of an appropriate warning and response structure

In any case, the issues of food insecurity and even food crises are not dependent on the existence or not of the NFSP. Regular programming of these issues in the sessions of the various coordination bodies is imperative in particular in the context of insecurity prevailing in certain regions of the country.

# 4. Recommendations on priority actions and focuses to achieve the goal of Zero Hunger in Cameroon

With a view to enabling Cameroon to reach the zero hunger target by 2030, it is recommended that the adoption of a framework law on the organization of the agricultural sector and the operationalization of the 'Observatory on Climate Change enabling both legal and practical resources to be provided for a framework for the promotion and promotion of agriculture, which is a guarantee of the elimination of hunger in Cameroon.

It is also necessary to reformulate the PNSA in order to adapt it to the Sustainable Development Objectives, in particular the SDG 2. The reform would make it possible to optimize the performance of this Program. Similarly, effective mobilization of funds for the implementation of the various subprogrammes and the development of a national food security strategy.

Operationally, the strengthening of the intervention capacities of the programs and projects responsible for modernizing the agricultural production system will make it possible to increase the national agricultural supply. To this end, Agropolis Programs, PADFA, PIDMA, etc. Should be targeted. Direct support of agricultural inputs (fertilizers, seeds) to small producers would also be strategic.

The dynamism of the activities of the Agricultural Extension National and Research Program (PNVRA) with a view to improving the technical supervision and the structuring of the actors will boost agricultural research and innovation in the Cameroon. In same vein, the acceleration of the implementation of the Agricultural Bank will make it possible to raise additional resources for the financing of agricultural activities.

In addition, the development of a rural environment conducive to young people and women requires technical support and financing of the plan to open up the production areas. The work of opening-up is a prerogative of the Ministry of Public Works.

In addition, in order to mitigate the postharvest losses and the low storage capacity, it is essential to proceed with the formulation and implementation of a National Program for the Development of Storage Food (PNDSA). This program would support village storage and create national food security stocks.

Finally, the establishment of the National Program for of the Support the Transformation of Agricultural Productions (PNATPA), the strengthening of the capacity of the Cereal Office and the relaunching of the Nuclear Education Program (PEN), formerly funded by the World Bank in the Ministry of Health (MINSANTE), will contribute to the achievement of the zero hunger target in Cameroon.

It should be noted that there is a need to speed up the process of carrying out the General Census of Agriculture and Livestock (GGAE), since without reliable statistics, diagnostics and stratigraphic plans are based which may be permanently challenged.

With regard to CISA, it is imperative that its functioning be effective in order to ensure monitoring and evaluation in the field of food security in Cameroon.

It is therefore necessary to ensure a good equalization in the allocation of resources allocated to the pillars of food security and nutrition, as this would ensure a stable balance between the four pillars.

To this end, within the framework of the five objectives of the zero hunger challenge, the following strategic axes have been identified:

# Access to adequate food all year round for 100% of the population

- Increase the income of rural households in the agricultural sector;
- Build the resilience of vulnerable sectors
- of the population and promote social protection of the agricultural population;
- Organize small-scale family farmers (SFFs) into producer associations and farmer clubs by agro-ecological zone;
- Scale up the development of specific skills in the area of agriculture.

# 100% increase in the productivity and income of small-scale farmers

- Continue the School Feeding Programme and targeting of priority education zones through the establishment of school canteens that use locally produced food;
- Increase mechanization and the use of

# Zero children under two years of age suffering from stunting

- Improve the management of acute malnutrition in high-risk regions (timely provision of a sufficient quantity of nutrition inputs, creation of treatment centres, capacity-building of actors);
- Promote good infant and young child feeding (IYCF) practices;
- Fight micronutrient deficiencies through supplementation, fortification and bio-

# All agricultural food systems are sustainable

- Promote diversified and sustainable agriculture;
- Inclusive financing of agriculture;
- Promote and expand the digital economy

#### Zero loss or waste of food products

- Reduction of post-harvest losses.

# 5. Recommendations to the WFP

The World Food Programme (WFP) has had a presence in Cameroon for more than 45 years and has gained substantial experience through the programmes and projects implemented. The institution has had to adjust its objectives in light of the country's economic and social progress, and according to the resources available. With this in mind, it would be appropriate for the next cycle of its country programme to address certain agricultural inputs;

- Target priority education zones with regard to food security through the use of local produce.

fortification;

- Promote nutrition education and practices (behavioural change communication);
- Strategic advocacy for nutrition with the aim of increasing political commitment and social participation, and increasing public funding for nutrition.

in the agricultural sector;

- Protect agricultural land;
- Increase investment in the agricultural sector.

strategic focuses identified in this strategic review, including:

- ✓ School feeding based on local produce
- ✓ Transfers of money
- ✓ Establishment of a crisis warning and rapid response system
- ✓ Reduction of post-harvest losses
- ✓ Processing and fortification of food products

✓ Prevention of malnutrition and strengthening of nutrition education

Moreover, the partnership with the government, development partners, United Nations agencies, NGOs and producer organizations should be promoted and strengthened in order facilitate the formulation of food security and nutrition policies. Likewise, the strategy for mobilizing resources for effective implementation of programmes and projects in this area should be developed and strengthened to effectively contribute to achievement of the zero hunger goal.







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17 PARTNERSHIPS FOR THE GOALS

B

15 UFE ON LAND

14 LIFE BELOW WATER

13 ACTION

85

GOALS

**ANNEXES:** 

Annex 1: Table of priority actions for the goal of zero hunger in Cameroon (based on certain strategic focuses of the review)

Priority actions	Objectives	Results by 2030	Results indicators	Stakeholders involved	Food security pillar
Strategic objective: achieve zero hunger	eve zero hunger				
Strategic focus 1 (F1): Promote diversified		and sustainable agriculture			
A1.1. Strengthen the intervention capacity of programmes and projects to modernize the agricultural production apparatus	A.1.1.1 Improve the intervention capacity of agricultural production programmes and projects	Greater intervention capacity of agricultural programmes and initiatives	% of programmes and projects with strengthened capacity	Government TFPs CTDs	Availability
A.2. Facilitate the access of producers to agricultural inputs	A.1.1.2 Improve the use of agricultural inputs	Number of producers and/or farmers having received inputs	% of producers and/or farmers who have received inputs	Government TFPs Private	Availability
A.3. Improving access to and from production areas	A.1.1.3 Reduce the transaction costs linked to the distribution of food products	Improved road links to agricultural production areas	% of roads upgraded	MINTP TFPs	Access
A.4. Establish village storage facilities and national food security stocks	A.1.1.4 Improve the availability of food products	Food storage facilities created and/or refurbished	Number of storage facilities created and/or refurbished	MINADER:	Access Stability

A.5. Agri-food processing	A.1.1.5 Process food products	Increased processing of food products	% of products processed	Government Private	Availability
A.6. Crop diversification	A.1.1.6 Ensure year-round availability of food products	Variety of food products available throughout the year	% of food products available throughout the year	Private	Availability Stability
tegic focus 2 (F2): Pi	Strategic focus 2 (F2): Promote nutrition education and practices	ind practices			
A.2.1 Improve the management of acute malnutrition in the high-risk regions	A.2.1.1 Capacity-building of actors A.2.1.2 Timely provision of a sufficient quantity of nutrition inputs A.2.1.3 Creation of treatment centres	Reduction of acute malnutrition in under- fives Reduction of malnutrition in pregnant and lactating women (PLW)	Prevalence of acute malnutrition	MINSANTE, UNICEF, CTDs, NGOs, civil society	Utilization
A.2.2 Promote good IYCF practices	A.2.2.1 Protect, support and promote exclusive breastfeeding exclusive A.2.2.2 Bring into force and monitor enforcement of the Code A.2.2.3 Promote optimal supplementary feeding	Good IYCF practices Reduced prevalence of stunting	Rate of exclusive breastfeeding Minimum acceptable diet Prevalence of stunting	MINSTANTE, WFP, UNICEF, CTDS	Utilization, health
A.2.3 Fight micronutrient deficiencies (through supplementation, fortification and bio fortification)	A.2.3.1 Vitamin A and iron/folic acid supplementation A.2.3.2 Ensure compliance with standards on fortified foods (salt, oils, flours)	Reduction of micronutrient deficiencies in women and children	Iron deficiency in women and children Vitamin A deficiency in children % of households that consume iodized salt	MINSTANTE, WFP, FAO, UNICEF, CTDS	Utilization

	F.2.3.3 Make fortified foods available to the population				
A.2.4 Promote nutrition education	A.2.4.1 BCC and social marketing using all communication channels (media, social networks, community awareness activities) on Essential Nutrition Actions	Reduce all forms of malnutrition	Knowledge, Attitudes and Practices (KAP) survey	MINSANTE, UNICEF, WFP	Utilization, health
A.2.5 Advocate in favour of nutrition	A.2.5.1 Advocacy directed at decision-makers	Increase political commitment to nutrition	% of leaders committed % of financial and human resources	MINSANTE, UNICEF, WFP	
A.2.6 Promote the production and consumption of micronutrient-rich foods	A.2.6.1 Promote vegetable gardening and the rearing of small ruminants A.2.6.2 Promote the creation of school gardens, particularly in schools involved in the school canteens programme A.2.6.3 Train agricultural extension agents in nutrition	Reduction of micronutrient deficiencies	Household dietary diversity score Food consumption score	MINADER, MINSANTE, FAO	Utilization Utilization
Strategic focus 3 (F3): Increase the income		of rural agricultural households			
Build the capacity of rural households	Build the capacity of the rural population	Income of rural households improved	Income level of rural households	Government and partners	Access
Development of income- generating activities (IGAs)	Support the IGAs of rural households	Income of rural households increased	Unemployment rate by gender	Government and partners	Access

Development of commercial crops and activities	Encourage rural households to take up commercial activities	ds Income earned from ial commercial transactions	Proportion of income earned from trade	Government and partners	Access
Strategic focus 4 (F4): R	Strategic focus 4 (F4): Reduction of post-harvest losses	losses			
Construction and fitting out of staple-food processing units	Set up staple-food processing units	Increase in the number of staple-food processing units	Number of processing units by food production zone	Government Private Partners	Stability
Construction and upgrading of road networks	Build and upgrade rural tracks and improve access to production areas	Substantial reduction of post- harvest losses	Number of road networks or rural tracks built or upgraded	Government Private Partners	Access
Construction of markets for livestock products	Build markets for livestock products	Access to livestock products increased	Number of markets built	Government, FEICOM and partners	Access
Marketing and advisory support for the distribution of agricultural products	Develop agricultural advice and information centres	Increased sales of agricultural products	Number of information centres set up	Government and partner	Access
Strategic focus 5 (F5): R	esilience of vulnerable po	opulation groups and social p	Strategic focus 5 (F5): Resilience of vulnerable population groups and social protection of the agricultural population	pulation	
Capacity-building of poor rural households to manage the risks facing them	Improve the sustainability and resilience of agricultural practices	Reduction of shocks affecting rural households	New agricultural techniques adapted to shocks	Government and partners	Stability and access

Access	Access	Availability		Availability	Availability	Availability
and	and	and		SFFs	and	and
Government partners	Government partners	Government partners		Government, and partners	Government partners	Government partners
Diversification of agricultural production	Number of initiatives to reduce vulnerability to environmental shocks	Rural populations covered by micro insurance		Number of laws and regulations drafted and applied in relation to the financing of agriculture	Number of credit bureaux set up in rural areas	Number of small-scale farmers trained
Appropriation of integrated agricultural techniques in arid settings	Reduction of vulnerability to environmental shocks	Social protection coverage of the rural and agricultural population	iculture	Financing of the agricultural sector better covered by laws and regulations	Number of credit offices set up in rural areas	More widespread knowledge of financial management among agricultural producers
Adopt integrated farming systems	Educate people in agricultural practices that preserve the natural resource base	Improve the social protection coverage of agricultural households and better target the poor in cash transfers	Strategic focus 6 (F6): Inclusive financing of agriculture	Draft specific legislation to govern financing arrangements for the agricultural sector	Set up credit bureaux in rural areas	Train small-scale farmers in financial management techniques
Increasing vegetation practices in arid regions	Encourage the adoption of sustainable agricultural investment practices	Promotion and extension of micro insurance and social safety nets	Strategic focus 6 (F6): I	Establish a favourable legal and regulatory framework for financing agriculture	Develop financial infrastructure specific to agriculture	Strengthen the financial management capacities of small-scale farmers

PROJECTS AND PROGRAMMES	SECTORS CONCERNED	OBJECTI VES	TYPES OF SUPPORT	PILLARS
National Food Security Programme (NFSP)	All sectors	Secure production; Improve the monetary income of producers, especially women and young people; Improve the cereal storage system; Contribute to improving the nutritional status of the population	Monitoring food security; Management of food insecurity risks; Supporting nutrition education and village storage facilities	<ul> <li>(1) Availability,</li> <li>(2) access,</li> <li>(3) stability,</li> <li>(4) utilization</li> </ul>
Plantain Sector Revival Programme (PRFP)	Plantain	Set up a network of plantain nurseries; Support for farmers; Support with marketing	Training in plant propagation techniques; Agricultural inputs; Direct subsidies to nurseries and municipalities; Advisory support	Availability
Village Palm Groves Development Programme (PDPV)	Palm oil	Make a lasting improvement to the standard of living of farmers	Agricultural inputs; Processing equipment; Advisory support	Accessibility, stability
Lowland Utilization Programme (PVBF)	Fruits and vegetables	Develop the lowlands and equip them with irrigation infrastructure	Motor pumps and pipes; Development of the lowlands; Advisory support	Availability, stability
Project to Fight the Main Scourges of Food Production	All food-producing sectors	Increase measures to fight the scourges of food production	Identifying opportunities; Support and capacity-building of village brigades; Supply of pesticides and treatment equipment	Availability
Programme to Support the Development of Agricultural Sectors (PADFA)	Rice and onion	Reduce poverty in rural areas; Increase income; Improve security	Supervised support of producers organized into CIGs; Crop intensification; Construction and fitting out of storage and processing facilities; Increased access to credit;	

Annex 2: Food security programmes and projects in Cameroon

			Leasing and 'warrantage'	
Project to Support the Promotion of Eru Domestication (PAPCO)	Eru	Promote the cultivation, processing and marketing of eru	Technical supervision; Support with seeds and plants; Technical support	Availability, access, stability
Potato Sector Revival Project (PRFPT)	Potato	Revive potato production, processing and marketing	Agricultural inputs; Advisory support; Technical support	Availability, access, stability
Mushroom Sector Development Project (PDFC)	Mushroom	Train producer organizations in harvesting, packaging and preservation techniques; Capacity-building of producer organizations in production techniques; Promote producer organizations; Monitor and advise on production	Direct support to producers in the form of production equipment; Improving access of producer organizations to marketing channels; Distribution of fact sheets	Availability, stability
National Programme to Support the Maize Sector (PNAFM)	Maize	Support capacity-building; Support the restructuring and organization of the sector; Facilitate the use of quality seeds	Seeds and other agricultural inputs; Agricultural equipment	Availability, access
Programme for the Development and Promotion of Roots, Tubers and Plantain (PDVRTP)	Roots Tubers Plantain	Build the capacity of producers; Improve access of producer organizations to marketing channels; Boost quantitative and qualitative demand from consumers	Agricultural inputs; Improving access of producer organizations to marketing channels; Advisory support (production, processing and marketing)	Availability, stability Access
Project to Support the Development of Small Ruminants (PADPR)	Small ruminants	Improve production systems	Capacity-building	Availability
Project to Support the Development of Small-scale Marine and Inland Fisheries (ADPAM)	Fishery products	Increased production	Capacity-building and equipment for fishers	Availability

Acrosolo Drocrommo		J.	O.oroll financing	Avoilability
Agropole Programme	All sectors	Development of second- generation agriculture	Overall Inancing	Availability, access, stability, utilization
Mission for the Development of Non- industrial and Maritime Fisheries (MIDEPECAM)	Fish	Increase catch and storage capacities	Sale of equipment	Availability, stability
National Agricultural Extension and Research Programme (PNVRA)	All sectors	Technical and organizational capacity-building of producers	Support/advice to producers	Availability, access, stability
Youth agricultural employment support project (PAIJA)	All sectors	Encourage young people to become farmers	Capacity-building, financing and setting-up of young farmers	Availability, access, stability
Project to support the establishment of microfinance for development (MC2/MUFFA)	All sectors	Improve the living conditions of disadvantaged segments of the population	Funding of activities	Availability, access, stability, utilization
Decentralized Rural Loan Project (PCRD)	All sectors	Develop economic activities	Funding	Availability, access, stability, utilization
Fertiliser Sub-sector Reform Programme (PRSSE)	All sectors	Improve access to inputs	Funding	Availability
Mission to Regulate the Supply of Staple Food Products (MIRAP)	All sectors	Regulate supply to markets	Import and storage of staple products	Access, stability
Standards and Quality Agency (ANOR)	All sectors	Standardization of quality	Compliance with standards	Utilization
Integrated Programme to Support Actors in the Informal Sector (PIAASI)	All sectors	Formalization of the informal sector	Organization, training and funding of actors' projects	Availability, access, stability, utilization
Programme to Support Rural and Urban Youth (PAJER-U)	All sectors	Socio-economic integration of unschooled and out-of- school youth	Organization, training and funding of actors' projects	Availability, access, stability, utilization

Cameroon Total (million)	Urban (%)	Rura	Rural (%) A	dricultural (%)			
(23,100)	48.8	51.		53.0			
Area (1,000 ha)							
Agricult Land ure	Land area Aı (%)	Arable land	% of agricultural land	Permanent crops	% of agricultur al land	Permanent pasture	% of agricultural land
<b>47,271</b> 9,750	33	6,200	63.59	1,550	15.90	2,000	20.51
Water resources (2008-2014)	2008-2014)						
Average precipitation in depth (mm/yea	ion in depth (	mm/year)	r) = 1,604				
IRWR (km3/vear)		ERWR (km3/vear)	ear)	TRWR (km3/vear)	TRWR/cap (m3/vear)		Dependency ratio
273		10.15		283.1	12,406	ý m	3.585
Water use							
Total water used		Km <sup>3</sup> /year	ar	% IRWR	% of TRWR		% of total withdrawn
		1 09		0.40	0.38		
Water used for agriculture	iculture	0.74			0.26	9	67.71
Irrigation (2008-2014)	014)						
		1,000 h	ha	% of agricultural % of arable land land	% of arable	e land	
Total area equipped for irrigation	d for irrigatio	<b>n</b> 22.5		0.2	0.4		
				Area	Sprinkler		Localized
Irrigation techniques (% total area)	ies (% total a	rea)		75.8	24.2		
Agricultural production by product group (millions of mt)	ction by produ	uct group	(millions of	mt)			
Food products group	dr	Cereals		Fruits	Vegetables		Meat

Annex 3: Agricultural statistics

Period		2(	2000	2014	2000	2013	2000	0 2013	3	2000	2013
Production		1	1.27	3.05	1.99	5.64	1.27		6	0.21	0.33
Flows of exports and imports of the food	d imports	of the i		product groups (millions of USD)	illim) sdr	ons of U	SD)				
Period		2(	2003	2013	2003		2013	~		2003	2013
Exports		0	0.4	0.5	75.1		229.0	0		0.1	0.0
Imports		1	125.0	559.4	10.2		42.5			22.0	9.8
Food production index (relative volume	ex (relativ	re volu		inual pro	duction d	compare	d with	of annual production compared with the base	period 2	2004-2006	6)
Year	2000	2005		2007	2008	2009	6	2010	2011	2012	2013
Production index	76.6	102.2	109.8	116.1	121.7	132.1		142.9	148. 4	155.0	159.4
Production index/cap	87.4	102.4	107.1	110.5	112.8	3 119.4		125.9	127. 5	129.8	130.1
Trade flows of food products (millions of USD)	products (	millior	is of USI	((							
Exports	272	418	430	488	687	829		948	861	732	782
Imports	269	493	556	692	984	1,016		906	1,27 3	1,263	1,218
Food aid consignment	nt										
Consignment (2013-15)											001
Undernourished people (millions)	ple (millio	ns)									
Period	1990-92		1995-97		2000-02		2008-10	3-10		2014-16	
No. people	4.7	5	5.4		5		3			2.3	
Preponderance of malnutrition in the to	alnutritio	in th∈		tal population							
Share of th population	<b>the</b> 38	NA	A		31		15			10	
Source: FAOSTAT, AQUASTAT, WTO, EESI2.	JASTAT, W	to, ees	il2.								

# Annex 4: Storage capacity and location of Cereals Board warehouses

Region	Location of the warehouse	Capacity (mt)
Far North Region	Maroua	2,000
	Kaélé	1,500
	Kousséri	1,000
	Mokolo	205
	Yagoua	250
North Region	Garoua	6,000
	Touboro	250
	Ndog	250
	Rey	250
	Baikwa	500
	Poli	500
	Padarmé	250
Adamawa Region	Banyo	500
	Tignère	500
	Ngaoundéré	2,000
	Meiganga	500
	Ngaoundal	250
Total capacity		16,500
Source: MBALLA (2006)		

Annex 5: Storage capacity and location of the warehouses of the FAO/WFP Management Committee

Region	Location of the warehouse	Capacity (mt)
Far North Region	Maroua	1,500
North Region	Garoua	1,000
Adamawa Region	Ngaoundéré	2,000
East Region	Bertoua	3,000
Centre Region	Yaoundé	2,000
Littoral Region	Douala	4,000
Total capacity		13,500
Source: MBALLA (2006)		

Region	% fertiliser users	% crop protection product users
Adamawa	47.7	34.2
Centre	16.3	24.4
East	1	8.1
Far North	21.7	40
Littoral	27.6	20.3
North	76.7	79.4
Northwest	48.5	9.4
West	59.6	40.3
South	7.5	16.2
Southwest	19.6	35.8
Cameroon	35.4	32.5
COLLECTAT JOIN		

Annex 6: Proportion of households using fertilisers and crop protection products by region in 2009

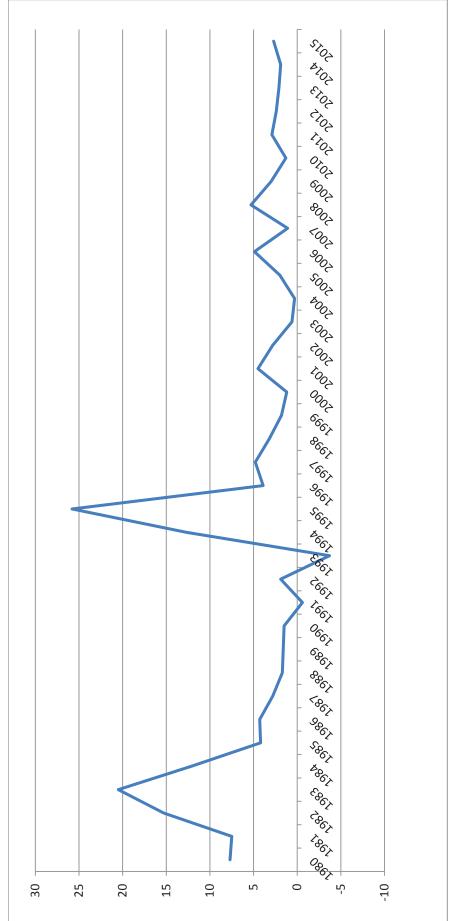
Source: AGRISTAT, 2010

Sector	Yield in 2013 (mt∕ha)	Yield in 2020 (ka/ha)	Surface area in 2013 (ha)	Surface area in 2020 (ha)	Production in 2013 (mt)	Production in 2020 (mt)
	,					
Pineapple	39	40	4,487	5,625	175,000	225,000
Palm oil	1.5	1.7	250,000	264,706	375,000	450,000
Maize	2.5	2.5	800,000	1,600,000	2,000,000	4,000,000
Millet and sorghum	1.1	1.3	1,181,818	1,153,846	1,300,000	1,500,000
Irrigated rice	4.4	Ъ	14,773	35,000	65,000	175,000
Rainfed rice	2	ĸ	47,805	194,915	98,000	575,000
Cassava	16	20	281,250	300,000	4,500,000	6,000,000
Yam	13	14	34,615	35,714	450,000	500,000
Plantain	12	15	250,000	333,333	3,000,000	5,000,000
Banana for export	25	25	14,000	16,000	350,000	400,000
Potato	12	12	20,833	29,167	250,000	350,000
Onion	23	23	6,087	8,696	140,000	200,000
Tomato	15	20	66,667	75,000	1,000,000	1,500,000
Pulses	1.2	1.4	1,250,000	1,428,571	1,500,000	2,000,000
Source: Rural Sector Development Strategy	Development St		Paper, MINADER (2010)			

Annex 7: Crop production targets between 2013 and 2020 (mt)

Year	2013	2014	2015	2016	2017	2018	2019	2020
Beef cattle	77,536	84,449	91,698	99,569	108,115	117,395	127,472	138,413
Poultry	97,771	106,488	115,629	125,553	136,330	148,032	160,738	174,535
Pork	20,716	22,563	24,499	26,602	28,886	31,365	34,057	36,981
Small ruminants	36,783	40,063	43,502	47,236	51,290	55,693	60,473	65,664
Non-conventional livestock	370	403	437	473	511	551	598	650
Eggs	34,333	51,620	64,525	80,657	100,821	126,026	157,533	196,916
Milk	8,985	13,978	19,254	26,521	36,530	50,317	69,308	95,466
Honey	1,495	1,655	1,815	1,991	2,183	2,394	2,626	2,880
Source: Division of Studies, Statistics and Cooperation/MINEPIA, December 2013	Studies, Sta	itistics and Coc	pperation/MIN	EPIA, Decemb	er 2013			

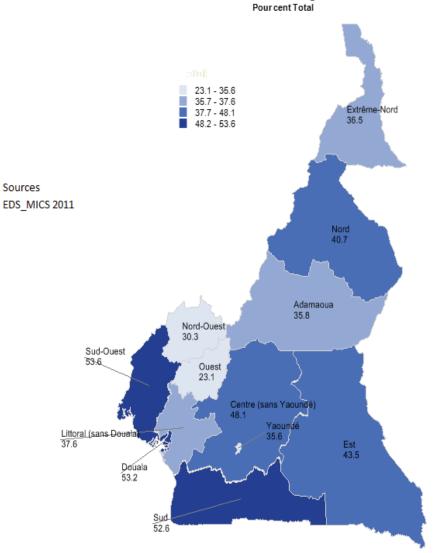
Annex 8: Livestock production targets between 2013 and 2020 (mt)



Annex 9: Changes in the general price level (inflation)

Source: The authors, based on IMF data (2016)

#### Annex 10: Percentage of women with anaemia



Pourcentage d'anemie chez les femmes Pourcent Total

Source: DHS/MICS (2011)

#### Annex 11: Scaling Up Nutrition (SUN) Cameroon initiative

Cameroon ioined the SUN Movement in February 2013. SUN is a country-driven collaborative process, which brings together actors to fight malnutrition. Cameroon's SUN Focal Point is the Ministry of Public Health's Deputy Director of Food and Nutrition.

A multi-stakeholder platform led by the government has been set up. It includes: the United Nations network represented by UNICEF, the civil society platform represented by Helen Keller International and the donor network represented by the French Cooperation. There is also a private sector network and a network of parliamentarians. However, the multi-stakeholder platform does not yet have a high-level coordinating body. A strategic SUN Movement Focal Point, who could be a representative of the Prime Minister or the Presidency, should be appointed.

The SUN Movement aims to:

- contribute to reducing undernutrition;

- increase the production and consumption of foods of high nutritional value;

- ensure the implementation of a sustainable system for the coordination of food and nutrition actions carried out in the different sectors and at different levels;

- ensure the integration of food and nutrition considerations in development plans and programmes, including the allocation of resources;

- set up nutrition-specific interventions;

- strengthen partnerships.

Since 2013, advocacy has been underway to increase the commitment of decision-makers and raise the awareness of the population about nutrition problems. These activities include: advocacy aimed at the Prime Minister and during sessions of parliament; a mobile caravan in the northern regions and the East, targeting government, traditional and religious leaders; media awareness and the production of a film about the causes, consequences and prevention of chronic malnutrition.

This momentum in relation to nutrition was the driving force that led to the creation of the inter-ministerial committee to fight malnutrition, attached to the Prime Minister's office, and the revision of the National Food and Nutrition Policy in 2015. A five-year operational plan and common results framework are now in the process of being prepared.

The national budget allocated to nutrition is minimal. Indeed, there are no budget lines specifically dedicated to nutrition. Financing is largely external and is intended for emergencies. There is no system for monitoring the funding granted for nutrition activities and programmes

# LIST OF ACRONYMS

ACEFA	Programme for the Improvement of			
	Competitiveness of Family Agro-pastoral			
	Farms			
AFD	French Development Agency			
AfDB	African Development Bank			
BUCREP	Central Bureau of the Census and Population			
	Studies			
C2D	Debt Reduction and Development Contract			
CAADP	Comprehensive Africa Agriculture			
	Development Programme			
CAPEF	Chamber of Agriculture, Fisheries, Livestock			
	and Forests			
CDD	Diocesan Committee for Development			
CEBEVIRHA	Economic Commission on Cattle, Meat and			
	Fish Resources			
CFSVA	Comprehensive Food Security and			
	Vulnerability Analysis			
CIG	Common Initiative Group			
CISA	Inter-ministerial Committee on Food Security			
COREP	Regional Fisheries Commission of the Gulf of			
	Guinea			
СТД	Decentralized Territorial Authorities			
DPGT	Smallholder Development and Land			
	Management			
ECAM	Cameroon Household Survey			
EESI	Survey on Employment and the Informal			
	Sector.			
FAO	Food and Agriculture Organization of the			
	United Nations			

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FAOSTAT	Statistics of the Food and Agriculture		
	Organization of the United Nations		
FCFA	Franc of the African Financial Community		
FEICOM	Special Support Fund for Local Authorities		
GDP	Gross Domestic Product		
GESP	Growth and Employment Strategy Paper		
GHP	Good Hygiene Practices		
GICAM	Inter-Management Group of Cameroon		
GMP	Good Manufacturing Practices		
HANCI	Hunger and Nutrition Commitment Index		
НІРС	Heavily Indebted Poor Countries		
HIV	Human Immunodeficiency Virus		
IBRD	International Bank for Reconstruction and		
	Development		
IDR	Import Dependency Ratio		
IFAD	International Fund for Agricultural		
	Development		
IMF	International Monetary Fund		
INS	National Institute of Statistics		
IPAVIC	Cameroon Poultry Association		
IRAD	Institute of Agricultural Research for		
	Development		
ITC	International Trade Centre		
JICA	Japan International Cooperation Agency		
LCBC	Lake Chad Basin Commission		
MDGs	Millennium Development Goals		
MECAM	Movement of Cameroon Entrepreneurs		
MICS	Multiple Indicators Cluster Survey		
MINADER	Ministry of Agriculture and Rural		
	Development		
MINEPAT	Ministry of the Economy, Planning and		
	Regional Development		

MINEPIA	Ministry of Livestock, Fisheries and Animal		
	Industries		
MINSANTE	Ministry of Public Health		
ΜΙΝΤΡ	Ministry of Public Works		
NAIP	National Agricultural Investment Plan		
NBA	Niger Basin Authority		
NEP	Nutrition Education Programme		
NEPAD	New Partnership for Africa's Development		
NFSP	National Food Security Programme		
NGO	Non-Governmental Organization		
OIC	Organisation of Islamic Cooperation		
PACA	Project to Improve Agricultural		
	Competitiveness in Cameroon		
PADMIR	Rural Microfinance Development Support		
	Project		
PAPCO	Project to Support the Promotion of Eru		
	Domestication		
PDFC	Mushroom Sector Development Project		
PDPV	Village Palm Groves Development Programme		
PDVRTP	Programme for the Development and		
	Promotion of Roots, Tubers and Plantain		
PFAC	France-Africa Partnership for Co-		
	development		
PIB	Public Investment Budget		
PMS	project management support		
PNAFM	National Programme to Support the Maize		
	Sector		
PNATPA	National Programme to Support the		
	Processing of Agricultural Products		
PNDSA	National Food Storage Development		
	Programme		

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PNVRA	National Agricultural Extension and	
	Research Programme	
PRCPIA	Agricultural Investment Planning	
	Capacity-Building Project	
PREPAFEN	Poverty Reduction and Action in Support	
	of Women in the Far North Project	
PRFP	Plantain Sector Revival Programme	
PRFPT	Potato Sector Revival Project	
PRODERIP	Project for the Development of Rainfed	
	Rice Farming in the Bimodal Rainfall	
	Forest Region	
PRSP	Poverty Reduction Strategy Paper	
PVBF	Lowland Utilization Programme	
RGAE	General Census of Agriculture and	
	Livestock	
RHORTICAM	Network of Cameroon Horticultural	
	Operators	
SAP	Structural Adjustment Programme	
SDGs	Sustainable Development Goals	
SPFS	Special Programme for Food Security	
STN	Sangha Trinational	
SUN	Scaling Up Nutrition	
SYNDUSTRICAM	Syndicate of Cameroon Industrialists	
TFPs	Technical and Financial Partners	
UNDAF	United Nations Development Assistance	
	Framework	
UNDP	United Nations Development	
	Programme	
UNECA	United Nations Economic Commission	
	for Africa	
UNICEF	United Nations International Children's	
	Fund	

USA	United State of America	
WB	World Bank	
WFP	World Food Programme	
ωтο	World Trade Organization	

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