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FINAL REPORT



STRUCTURING SMESEHs IN THE AGRO-INDUSTRY SECTOR

SEPTEMBER 2022

FOREWORD

With the adoption of the National Development Strategy 2020-2030 (SND30), Cameroon has a new reference framework for its development action. The SND30 outlines the guidelines that should guide development efforts to achieve the objectives set in the document “*Cameroon Vision 2035*” and emphasizes the structural transformation of the Cameroonian economy. Indeed, it is for the Government to develop the sector of industries and services around nine (09) priority sub-sectors aimed at the industrialization of Cameroon. Three of these sub-sectors have been selected by the Ministry of Small and Medium Enterprises, Social Economy and Handicrafts (MINPMEESA) to stimulate the implementation of the import-substitution and export promotion policy. This is the Agro-industry sub-sector and the Textile-Confection-Leather and Forestry-Wood sectors.

With regard to the agro-industry sub-sector, Cameroon's ambition is to ensure its food self-sufficiency and to conquer external markets, more specifically those of the Economic Community of Central African States (ECCAS). and the Economic Community of West African States (ECOWAS). The Forest-Wood sector, for its part, emphasizes the development of forest plantations and the strengthening of the wood processing industry up to the third generation. Finally, the Textile-Confection-Leather sector aims to increase national cotton production to the threshold of 600,000 tons per year by 2025 and to integrate the industrial transformation of local fiber to reach a minimum rate of 50% at horizon 2030.

A cold analysis of these three (03) sub-sectors reveals several obstacles to the industrialization of the Cameroonian economy, in particular: i) a predominant informal sector, ii) taxation that is not incentive and unsuitable for SMEs, iii) weak mechanization farms, iv) the energy deficit for industrial production, v) the high cost of inputs needed for production/processing, vi) the problem related to the packaging of products, vii) the problems related to the standardization of products by Small and Medium Enterprises, Social Economy actors and Artisans (PMEESA), viii) strong export of raw materials ix) massive imports of manufactured products.

In view of these constraints, and with a view to facilitating the implementation of the import-substitution and export promotion policy, a revitalization of these sub-sectors is essential.

It is with this in mind that my ministerial department has conducted studies on "*the structuring of PMEESAs in the Agro-industry sector*", "*the structuring of PMEESAs in the cotton-textile-clothing-leather sector*", and "*the implementation implementation of the support project for the insertion of PMEESA in wood processing into local value chains*".

These various studies were carried out with the aim of supporting entrepreneurs operating in these sub-sectors to strengthen their role as catalysts of growth and major actors in the structural transformation of our economy.



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ABBREVIATIONS, ACRONYMS AND ABBREVIATIONS

CIDA	Canadian International Development Agency
ACDIC	Citizen Association for the Defence of Collective Interests
PCA	Africa, Caribbean and Pacific
AECID	Spanish Agency for International Development Cooperation
AFD	French Development Agency
AMS	Agrifood Product Management Service
APESS	Association for the Promotion of Livestock in the Sahel and Savannah
APME	Agency for Small and Medium Enterprises
ARMA	Autoregressive and Moving Average Models
ASSOBACAM	Cameroon Banana Association
ATFBE	Technical Assistance to the Banana Export Sector
AfD	African development bank
BADEA	Arab Bank for Economic Development in Africa
IDB	Islamic Development Bank
BM	World Bank
CAMLAIT SA	Cameroonian Dairy Products Company
CAPEF	Chamber of Agriculture, Fisheries, Livestock and Forestry
CARBAP	African Center for Banana and Plantain Research
CARBAP	African Center for Banana and Plantain Research
ICC	Chamber of Commerce and Industries
CDC	Cameroonian Development Company
CDEN, CDENO, CDPM	Livestock and Fisheries Development Funds
ECA	United Nations Economic Commission for Africa

ECOWAS	Economic Community of West African States
ECCAS	Economic Community of Central African States
CEMAC	Economic and Monetary Community of Central Africa
CHOCOCAM	Cameroon chocolate factory
CICC	Cocoa and Coffee Interprofessional Council
C.I.P.	Preincubation center
CMS	Selection of Maize from Cameroon
CNEB-CAM	National Confederation of Cattle Breeders of Cameroon
CNOPCAM	National Consultation of Producer Organizations of Cameroon
CNPS	National Social Insurance Fund
CNSE	National Monitoring-Evaluation Committee
UNCAC	United Nations Framework Convention on Climate Change
COMDEV	Commonwealth Development Corporation
COTEC	Cocoa and Coffee Processing and Export Company
COVID-19	Corona Virus Diseases 19
GVC	Global Chain of value
CHED	Growth and Employment Strategy Paper
EPA	Administrative Public Establishment
CAM	Food and Agriculture Organization of the United Nations
FERMENCAM	Cameroonian Fermentation Company
IFAD	International Fund for Agricultural Development
FIRCA	Interprofessional Fund for Agricultural Research and Advice
FODECC	Cocoa and Coffee Sector Development Fund
GIZ	German International Development Cooperation Agency
NSI	National Institute of Statistics
INSEE	The national institute of statistics and economic studies

IPAVIC	Cameroon Poultry Interprofession
IRAD	Agricultural Research Institute for Development
JICA	Japan International Cooperation Agency
KfW	German Development Bank
KOIC	Korean Cooperation Agency
LANAVET	National Veterinary Laboratory
LIFIDEP	Livestock and Fisheries Development Project
MAISCAM	Maize from Cameroon
MIDEPECAM	Mission for the Development of Artisanal and Maritime Fisheries in Cameroon
MINADER	Ministry of Agriculture and Rural Development
MINCOMMERCE	Department of Commerce
MINDCAF	Ministry of Domain, Cadastre and Land Affairs
MINDDEVEL	Ministry of Decentralization and Local Development
MINDEF	Department of Defence
MINEPAT	Ministry of Economy, Planning and Regional Development
MINEPDED	Ministry of the Environment, Nature Protection and Sustainable Development
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINERSI	Ministry of Scientific Research
MINMIDT	Ministry of Mines, Industry and Technological Development
MINPMEESA	Ministry of Small and Medium Enterprises, Social Economy and Handicrafts
MINSANTE	Minister of Public Health
MINTP	Ministry of Public Works
MINTRANS	Ministry of transportation
MSEG	Special Mission for the Eradication of Tsetse
NACAM	Classification of Activities of Cameroon
NWCA	Northwest Cooperative Association

OHADA	Organization in Africa for the Harmonization of Business Law
GOOSE	World Organization for Animal Health
OIT	International Labor Organization
ONCC	National Cocoa and Coffee Board
UNFEM	United Nations Fund for Women
PADER	Rural Development Support Project
PADFA	Support Project for the Development of Agricultural Sectors
PADRT	Roots and Tubers Development Support Project
WFP	World Food Program
PAMOL	Public agro-industrial company of Cameroon
PAPMAV-Q	Support Project for the Production of Quality Plant Material
PCP-ACEFA	Program to Improve the Competitiveness of Agropastoral Farms
PCP-AFOP	Support Project for the Renovation and Development of Vocational Training in the Livestock, Agriculture and Fisheries Sectors
PD-COBIE	Livestock Marketing and Livestock Infrastructure Development Project
PDCVA	Agricultural Chain of values Development Project
PD-CVEP	Project for the Development of Livestock and Fish Farming Chain of values
PEA-YOUTH	Youth Agropastoral Entrepreneurship Promotion Program
PHP	Penja Plantation Society
GDP	Gross domestic product
PIDMA	Agricultural Markets Investment and Development Project
PLANOPAC	National Platform of Professional Agro-Sylvo-Pastoral Organizations of Cameroon
SMEs	Small and medium enterprises
SMESEHs	Small and Medium Enterprises of the Social Economy and Crafts
PNAFM	National Support Program for the Maize Sector
PNDPHH	National Oil Palm and Rubber Tree Development Project
UNDP	United Nations Development Program

UNEP	United Nations Environment Program
PPEA	Aquaculture Entrepreneurship Promotion Project
PROCISA	Green Innovation Centers Project for the Agrifood Sector
PROCOMA	Cameroonian cassava processing company
PRODEL	Livestock Development Project
R&D	Research and development
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SAAGRY	Agro-Industrial Company of the YOUSSE Group
SABC	Cameroon Breweries Company
SAFACAM	African Forestry and Agricultural Society of Cameroon
SCR MAYA & Cie	Cameroonian Oil Refining Company Maya & Cie
SEMRY	Society for the Expansion and Modernization of Yagoua Rice Cultivation
SND30	National Development Strategy 2020-2030
NIS	National Investment Company
NARS	National Agricultural Research System
SOCAPALM	Cameroonian Society of Palm Groves
SOCASPISCAM	Cooperative Society for Agro pastoral, Forestry and Fish Farming in Cameroon
SODECAO	Cocoa Development Society
SODEPA	Company for the Development and Exploitation of Animal Productions
SONAM Cameroon	Cameroonian rice import company
SOMDIAAA	Company for the Organization, Management and Development of the Food and Agricultural Industries
SOPROICAM	Cameroon Soybean Processing Industry
SOSUCAM	Cameroon Sugar Company
SOTICAM	Industrial Transformation Company of Cameroon
SOWEFCO	Cooperative Association of South-West Farmers

SPC	Company of Feed mills of Cameroon
SPFS	Swiss Farm Palm Groves Society
MPS	Mbanga Plantation Company
SUMOCAM	Modern Sugar Factory from Cameroon
TELCAR	Cameroon cocoa production and distribution company
TIC	Information and Communication Technologies
UCB	Cameroonian Union of Breweries
UCCAO	Union of Agricultural Cooperatives of the West
EU	European Union
UNFPA	United Nations Population Fund
UNICEF	UNICEF
USAID	United States Agency for International Development
GO	Added Value

EXECUTIVE SUMMARY

In 2020, the Cameroonian Government developed the new reference framework for the implementation of the second phase of *Cameroon vision 2035* ; the National Development Strategy 2020-2030 (SND30). This strategy provides for the structural transformation of the Cameroonian economy by emphasizing the development of the industry and services sector. Indeed, nine sub-sectors have been identified to lead the country to its industrialization on the desired horizon, among which is the Agro-industry sector.

Thus, for the period 2020-2030, Cameroon's ambition is to increase the quantity and quality of the production of agricultural products in order to ensure its food self-sufficiency, to supply the growing demand of national agro-industries for raw materials agriculture and to conquer international markets, particularly those of the ECCAS and ECOWAS sub-regions. Achieving this objective necessarily entails: (i) bringing agro-industrial production into conformity; (ii) modernization of agriculture, livestock, fishing and aquaculture; (iii) marketing on the external market of agro-industrial production.

To do this, the agriculture sub-sector must experience an annual growth of 8.5% necessary to address the additional demand from industries. This gap will be justified by more sustained efforts in terms of modernization of the production system through the development of more intensive agriculture in sectors with high growth potential, the improvement of yields with an emphasis on better supply in agricultural inputs. With regard to the livestock, fisheries and aquaculture sub-sector, an increase in production is envisaged with emphasis on: (i) the promotion of short-cycle livestock farming; (ii) support for the creation of medium and large size farms for cattle breeding likely to bring in foreign currency for export; (iii) the development of dairy production; (iv) promotion of aquaculture; (v) the structuring of distribution and marketing circuits; (vi) and the establishment of slaughter and conservation infrastructure. These various initiatives should enable a gradual reduction in imports of Cameroonian agro-industrial products in the medium term.

The MINPMEESA whose role is to ensure the definition and implementation of public policies in favor of Small and Medium Enterprises of the Social Economy and Handicrafts (SMESEHS) carried out the study on " *the structuring of SMESEHS of the Agro-industry sector*" with a view to enabling its targets; contribute effectively to the development of a productive private sector capable of ensuring the food self-sufficiency of the Cameroonian economy. To do this, it is a question of first (i) identifying the products with high added value,

favorable to the development of the import-substitution mix and promotion of exports, (ii) listing the chain of values of production, processing and marketing of agro-industrial products for which the country has a comparative advantage, (iii) to develop new support mechanisms necessary for the densification of Cameroon's industrial fabric.

This study uses data from documentary research and estimates made, the results of which make it possible to identify the products from the agro-industry on which the Cameroonian government should focus to achieve its growth objectives listed in the SND30.

At the end of the study, we managed to establish with regard to the descriptive part that: the weight of imports is carried by the cereal sectors in particular, wheat, rice and corn. Further analyses made it possible to identify cassava and plantain as substitutes for wheat. In addition, the diagnosis revealed that for all productions, the major constraints are as follows: i) a strong predominance of the informal sector, ii) weak coordination of interventions in the agro-industrial sector, iii) non-incentive and unsuitable taxation for SMEs, iv) low mechanization of farms, v) land constraints limiting the extension of industrial plantations, vi). the problems of energy deficit for industrial production, vii) the high cost of inputs necessary for production/processing, viii) the problem related to the packaging of agro-industrial products, ix) the non-existence of standards for certain products such as bread, the difficulties related to the acquisition of standards; non-compliance with standards by SMESEHs.

With regard to the issues/challenges of the SND30 for the agro-industrial sector aimed at increasing the quantity and quality of agricultural production, improving the level of processing of raw materials, opening up production basins; facilitation of access to inputs and improved seeds; four (04) areas have been identified to respond to this, namely: i) modernization and structuring of the production system ii) development and consolidation of infrastructure and knowledge; (iii) trade capacity building and partnership development; (iv) development and strengthening of private sector support institutions. Which axes made it possible to carry out a profiling of the SMESEHS of the Agro-industry sector to estimate the Gross Domestic Product (GDP) agro-industrial potential necessary for the implementation of the import-substitution policy.

To this end, the study made it possible to estimate the agro-industrial GDP gap ¹over the period 2022-2030. In terms of implications of catching up on Agribusiness GDP; real GDP is

¹ Difference between potential GDP (GDP estimated according to SND30 objectives) and trend GDP (GDP estimated according to the trend from previous years (2010-2020))

expected to rise from CFAF 1,052 billion in 2019 to CFAF 2,477 billion in 2030 in line with the growth profile forecast by the SND30. Following this estimate, a profiling of agro-industrial products with high added value of which Cameroon has the comparative advantage was carried out in order to facilitate the identification of priority actions to be implemented by the Government to supply the markets local and sub-regional Cameroonian and competitive products. The main priority sectors in this context are cocoa-coffee, palm oil, sugar, rice, corn, banana-plantain, fish, milk and meat.

This report is a proposal for actions to be taken in terms of public policies with a view to supporting SMEs, which constitute a large mass of the private sector, in the production and processing of agricultural products in quantity and quality to meet local consumption needs and explore the foreign market.

GENERAL INTRODUCTION

1. General context of the study

In December 2020, Cameroon adopted the National Development Strategy 2020-2030 (SND30), a reference framework for the implementation of the second phase of Vision 2035 which plans to make Cameroon "an emerging, democratic and united country in its diversity ". This strategy includes three (03) fundamental guidelines: (i) a mix between import-substitution and export promotion based on the comparative advantages of the national economy; (ii) a strategic and pragmatic State; (iii) a link between indicative planning and imperative planning. These guidelines are essentially based on four (04) pillars: (i) the structural transformation of the economy; (ii) development of human capital and well-being; (iii) promotion of employment and economic integration; and (iv) governance, decentralization and strategic management of the state. The pillar on the structural transformation of the economy represents the central pillar and includes seven (07) areas of intervention: (i) the development of industries and services; (ii) the development of agricultural productivity and production; (iii) development of productive infrastructure; (iv) regional integration and trade facilitation; (v) revitalization of the private sector; (vi) preservation of the environment and protection of nature; and (vii) transformation of the financial system.

In terms of structural transformation of the economy, the agro-industrial sector aims not only to achieve food self-sufficiency but also to conquer market shares in the ECCAS and ECOWAS sub-regions. This will include ensuring agro-industrial production; the modernization of agriculture, livestock, fishing and aquaculture; and commercialization on the external market of agro-industrial production.

Thus, agro-industry appears as an important lever on which the Government must act in order to contribute substantially to the achievement of the objectives of the import-substitution mix and promotion of exports under the prism of the development and competitiveness of agricultural products. In Cameroon, agro-industrial products mainly from agriculture (raw materials) remain insufficient to meet national demand in terms of household consumption and the needs of local processing units. Imports of food products ²form a significant part of the trade balance deficit.

It is with this in mind that the study on the ***“structuring of SMESEHs in the agro-industry sector”*** is based. With regard to the structure of the economy and the country's agricultural potential, emphasis will be placed on additional efforts to be made in terms of

² For example, in 2020, Cameroon imported 860,000 tons of wheat, or approximately 150 billion CFA francs.

production and processing of agricultural products with a view, on the one hand, to ensuring demand by substituting certain imported goods with those produced locally and, on the other hand, to position itself on the sub-regional and international market. The main priority sectors in this context are cocoa-coffee, palm oil, sugar, rice, corn, banana-plantain, fish, milk and meat.

This report is a proposal for actions to be taken in terms of public policies with a view to supporting SMEs, which constitute a large mass of the private sector, in the production and processing of agricultural products in quantity and quality to meet local consumption needs and explore the foreign market.

2. Study objectives

The general objective of this study is to identify the actions to be taken to increase the production and productivity of SMESEHs in the agro-industrial sector.

Specifically, it will be:

- Make an inventory of the SMESEHs of the agro-industrial sector;
- Identify products with a comparative advantage for the import-substitution mix and export promotion;
- Build the standard profiles of agro-industrial SMESEHs necessary for the structural transformation of the economy;
- Identify support measures in terms of public policies;
- Propose a mechanism for monitoring and evaluating the public policies envisaged.

Thus, this study is structured around three main parts each comprising two chapters namely: Conceptualization of Agro-industry in Cameroon, inventory and diagnosis (I), Formulation of operational choices and profiling of the agro-industry -industry (II), and Action plan and monitoring-evaluation mechanism (III)

PART I: CONCEPTUALIZATION OF AGRO- INDUSTRY IN CAMEROON, OVERVIEW AND DIAGNOSIS

CHAPTER 1: CONCEPTUALIZATION OF AGRO-INDUSTRY IN CAMEROON

This chapter focuses on the definition of some key concepts of the agro-industrial sector and presents the importance and dimensions of this sector.

1.1.DEFINITION OF KEY AGRO-INDUSTRY CONCEPTS

This subsection gives a definition of the concept of "Agro-industry" as well as important aspects for understanding its different contours.

1.1.1. Agro industry

According to INSEE, agro-industry brings together the branches of manufacturing industry that supply and/or market agriculture, including livestock and fishing. It also designates all the industrial companies that supply goods to agriculture (fertilizers, pesticides, machines) and those that transform, produce and package agricultural products (food industry). In other words, agro-industry includes production, processing and any other activity providing inputs for the production/processing of agricultural products.

Agriculture is the branch supplying raw materials to agro-industry and represents all the activities developed by man, in a given biological and socio-economic environment, to obtain the plant and animal products that are useful to him in especially those intended for food. A distinction is made between plant production for products from fields and animal production for those from livestock. Depending on the climatic and soil characteristics of the zones, the type of agricultural production differs from one zone to another.

Alongside agriculture, there is fishing and aquaculture, which are also providers of fishery-type raw materials to agro-industry. Fishing is any activity resulting in the catching, catching or harvesting of fish; it also takes into account the operations at sea in support of the activities mentioned.

Modifying the shape of products from agriculture, including livestock, fishing and aquaculture, involves mechanical, physical and/or chemical processes.

All the units that practice these transformation activities or that operate in the repair and installation of adapted industrial equipment are called **manufacturing industries**. The products

(semi-finished ³and finished⁴) which are derived from it and which are intended for human and/or animal food consumption fall into the food industry.

1.1.2. Key concepts related to agribusiness

Industry: set of human activities geared towards the production of goods and services. Industry implies a certain division of labor, unlike crafts where the same person theoretically takes care of all the processes: study, manufacturing, marketing, management.

Economic activity: process which, from inputs, leads to the manufacture of a good or the provision of a service. The classification of activities divides economic activities into categories which, by aggregation, make it possible to define areas of activity (Agriculture, Industry, Construction, Commerce, etc.) and sectors of activity (primary, secondary and tertiary)

Sector: refers to all the complementary activities which contribute, from upstream to downstream, to the production of a finished product.

Chain of Value: strategic tool that allows, through a set of steps, to identify value-generating activities. For a good, it provides information on the different stages of modification of its structure until its final consumption; each step producing added value.

Industry: brings together homogeneous production units, which manufacture products or produce services belonging to the same identifier of the classification of economic activity considered. On the agricultural level, it brings together all the units of economic activity engaged in the cultivation of plants, animal husbandry, hunting and related activities.

Sector of activity: includes production, trade or service companies that have the same main activity with regard to the classification of economic activity considered.

Productivity: relationship between a production and the resources (labor and capital) used to obtain it.

³ Product which after transformation is ready for distribution

⁴ Product which has already been partially developed but which must be reworked or packaged before being placed on the market

1.2.IMPORTANCE AND DIMENSIONS OF AGRO-INDUSTRY

1.2.1. Importance of agro-industry

The Government conducted between 2018 and 2019, and in collaboration with the various socio-economic components involved in the development of development policies, a set of works for the definition of the reforms, actions and measures relevant to the achievement of the objectives of the second phase of its emergence program. These reforms and actions, recorded in the National Development Strategy (SND-30), intend to enable the Cameroonian economy to carry out its structural transformation by significantly increasing the share of the secondary and manufacturing sector through the development of industries and services.

The Government's actions will aim to pursue the structural transformation of the economy and will focus primarily on recovery policy, the modernization of agriculture and industrialization. To this end, the actions of the government will aim at the development of competitive and strategic sectors that bring growth and create jobs, in particular the agro-industry sector.

The agro-industrial sector is counted among the nine priority sectors for the development of industries and services according to the comparative advantages of the national economy, the availability of raw materials and the level of technology required for production.

1.2.2. Dimension of agro-industry

With regard to the *Sector of Industries and Services*, the Government's priority in this sector is the industrialization and diversification of the economy. With this in mind, local production and processing will be favoured, particularly with regard to strategic food items for the reduction of the trade balance deficit and the promotion of food security. Promotion of the “**Made in Cameroon**” label » at the level of production and distribution of goods and services will also be a priority.

To this end, facilities will be granted to local producers and national champions will be identified and supported in key sectors. Furthermore, **a more effective incentive framework for the development and growth of SMEs** will be set up.

To this end, the Government will strive to encourage the distribution of local goods and products both on the national territory and abroad. Particular attention will be paid to entrepreneurs operating in the agro-industrial sector. Another important orientation relates to

Conceptualization of agro-industry: inventory and diagnosis

the promotion and development of research and technological innovation as well as the promotion of the standard. It will be a question for the Government of strengthening the capacities of research bodies and structures on the one hand, and of carrying out reforms aimed at promoting partnerships between the world of research and that of business. In particular, the State will strengthen the capacities of research organizations involved in the field of fertilizer and seed production.

CHAPTER 2: OVERVIEW AND DIAGNOSIS OF THE AGRO-INDUSTRY SECTOR

This chapter focuses on the delimitation of the agro-industrial sector as well as the inventory and diagnosis of the components identified.

2.1. DELIMITATION OF THE AGRO-INDUSTRY SECTOR AND PRODUCT NOMENCLATURE

2.1.1. Importance of Agribusiness

Between 2018 and 2019, the Government conducted, in collaboration with the various socio-economic components involved in the development of development policies, a set of works for the definition of the reforms, actions and measures relevant to achieving the objectives of the second phase of its emergence program. These reforms and actions, recorded in the National Development Strategy 2020-2030 (SND30), intend to enable the Cameroonian economy to carry out its structural transformation by significantly increasing the share of the secondary and manufacturing sector, and therefore by developing industries and services.

The Government's actions will aim to pursue the structural transformation of the economy and will focus primarily on recovery policy, the modernization of agriculture and industrialization. To this end, these actions are oriented towards the development of competitive and strategic sectors that bring growth and create jobs, in particular the agro-industry sector.

The agro-industry sub-sector is one of the nine priority sub-sectors identified for the development of industries and services based on the comparative advantages of the national economy, the availability of raw materials and the level of technology required to the production.

For analysts and development partners alike, the agri-food industry is an essential lever for Cameroon's economic growth. The agro-industrial sector contributes to more than 33% of industrial production, 22% of industrial added value and nearly 6% of exports.

In addition, emphasis will be placed on promoting the local production of seeds and fertilizers from national research institutes.

Also, local research bodies and institutes will be encouraged to invest in the development of innovative inputs capable of boosting agricultural and fisheries production. Finally, the State intends to set up an agricultural information system in order to have reliable data for better management of agro-pastoral policies.

2.1.2. Component segmentation

The Nomenclature of Activities and Products of Cameroon (NACAM rev 1) makes it possible to classify in a coherent and homogeneous manner all economic activities by branch. It also facilitates the statistical processing of information from all sectors of activity.

The products identified by the SND30 for the development of the agro-industrial sector are classified according to the NACAM rev 1 nomenclature code. These products are classified into two large groups depending on whether one is in the production of the raw material or in its transformation into semi-finished or finished products.

Table 1 : Delimitation of the agro-food sector option production of the raw material

Nomenclature code	NACAM rev 1 products	Sectors	Semi-finished products	Finished products
Plant industrial production				
Cereal cultivation	dry corn	Corn	-	-
	paddy rice	Rice	-	-
	Millet/Sorghum	Millet/Sorghum	-	-
Cultivation of roots and tubers	fresh cassava	Cassava	-	-
	Dried cassava (including in the form of cassettes)		-	-
Cocoa cultivation	Dried cocoa beans	Cocoa-coffee	-	-
Coffee and tea culture	Pulped and dried Arabica coffee beans		-	-
	Dried Robusta coffee beans		-	-
Banana cultivation	Plantain bananas	Plantain	-	-
	Sweet bananas		-	-
Oil palm cultivation	palm nuts	Palm oil	-	-
Industrial animal production				
Cattle breeding	Live cattle, raw cow's milk	Meat (cattle, pigs, poultry, small ruminants)	-	-
Pig breeding	Pigs on feet		-	-
Poultry farming	Chickens, Other poultry (pigeons, turkeys, geese, guinea fowl, ducks, etc.)		-	-
Small ruminant farms	Live sheep, live goats, raw sheep's milk, raw goat's milk		-	-
Industrial fish production and aquaculture				
Fishing (artisanal, industrial), fish farming and aquaculture	Fresh fish	Fish	-	-

Table 2 : Delimitation of the agro-food sector option transformation of the raw material

Nomenclature code	NACAM rev 1 products	Sector	Semi-finished products	Finished products
Plant industrial production				

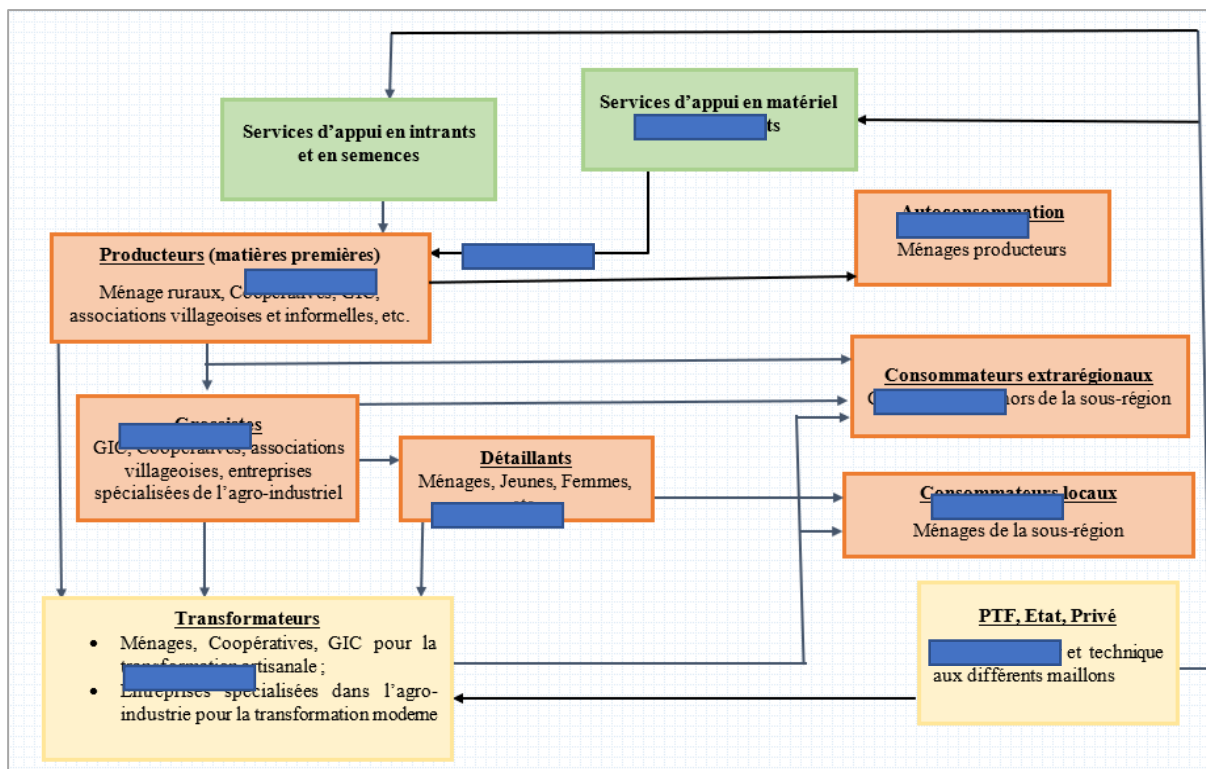
Manufacture of cereal flours	Corn flour	Corn	- Corn flour - Cornmeal	- corn crude oil - Refined corn oil - Corn Puffs - Distilled corn alcohol (Arki) - Corn beer: kwata - Other corn products (pastry)
	Millet/Sorghum	Millet/Sorghum	Sorghum flour	- Sorghum -based pastry - Sorghum drink - Other food products derived from sorghum
Rice preparation	- husked rice - Broken rice	Rice	- Rice flour - Milled rice	- Pastry made from rice - Pasta - rice couscous - rice porridge - rice drinks, - Decorative objects, Fertilizers - Other rice products
Manufacture of cereal flours	- cassava flour - Tapioca - cassava stick - Starch hydrolysis products	Cassava	- cassava flour - Fermented cassava - Other cassava products	- Cassava flour; - Tapioca - Cassava stick (including mintumba and miondo) - Starch hydrolysis products (Starch and starches; - Starch residues, - Other starch products. - Other cassava-based products (pastries);
Manufacture of cocoa products	- Mass cocoa - Cocoa butter - Cocoa and chocolate powder or cakes	Cocoa-coffee	- Cocoa butter, - Cocoa powder, - Cocoa cakes - cocoa paste	- Chocolate - Cocoa-based liquors - Other food products derived from cocoa
Coffee husking and processing	- Arabica hulled coffee - Robusta hulled coffee - Roasted coffee - Conditioned coffee		- Coffee powder, - Cockles - coffee skins	- Confectionery - Cosmetic - Other coffee products
sugar making	- Sugar - Molasses	Sugar	- sugar cane pulp - Molasses - Bagasse - vines' - Organic waste	- Crystalized sugar - Granulated sugar - Sugar cubes - Icing sugar - Brown sugar - Turbinado - liquid sugar - Inverted sugar - Glucose and sucrose sugar - Other food products derived from sugar
Manufacture of crude oil and meal	- Crude palm oil - palm kernel	Palm oil	- Crude palm oil	- Refined palm oil; - Refined palm kernel oil; - Cosmetic products ;
Manufacture of refined oils, margarines and fats	- Refined palm oil - Refined palm kernel oil		- Palm kernel oil - pulp oil	- Foodstuffs ; - Energy ; - Organic fertilizers - Other palm oil derivatives

Banana cultivation	<ul style="list-style-type: none"> - Plantain bananas - Sweet bananas 	Plantain	Plantain flour	<ul style="list-style-type: none"> - Plantain-based pastry; - Plantain drink - Fertilizer - Other food products derived from plantain
Industrial animal production				
Production, preservation and processing of meat and derived products	<ul style="list-style-type: none"> - Cattle meat - Sheep and goat meat - Pork meat - Slaughtered poultry - Canned meat 	Meat	<ul style="list-style-type: none"> - Minced meat - Minced pork - Poultry meat 	<ul style="list-style-type: none"> - Dried meat - Smoked meat - Other food products derived from beef (beef pâté, charcuterie) - Other food products derived from pork (sausages, charcuterie products, cuts of pork) - Other food products derived from poultry meat (Poultry pâté)
Manufacture of dairy products	<ul style="list-style-type: none"> - Milk - Milk cream, fermented milk, yoghurts and fresh dairy desserts - Butter and cheese - Ice cream, lollipops and other dairy products 	Milk	Skimmed milk	<ul style="list-style-type: none"> - Liquid dairy products (yogurts) - Solid dairy products (Infant foods, Cheeses - Butter and margarine), Powdered dairy products (Milk powder) - Other dairy products (Ice cream, lollipops, fresh dairy desserts)
Industrial fish production and aquaculture				
Processing and preservation of fish and fish products	<ul style="list-style-type: none"> - Fresh frozen and frozen fish - Dried, salted, smoked fish - Fishmeal - Canned fish 	Fish	Fresh fish	<ul style="list-style-type: none"> - Smoked fish - Dried fish - Other food products derived from fish (preserves, fish powder, sausages)

2.1.3. Agribusiness Chain of value

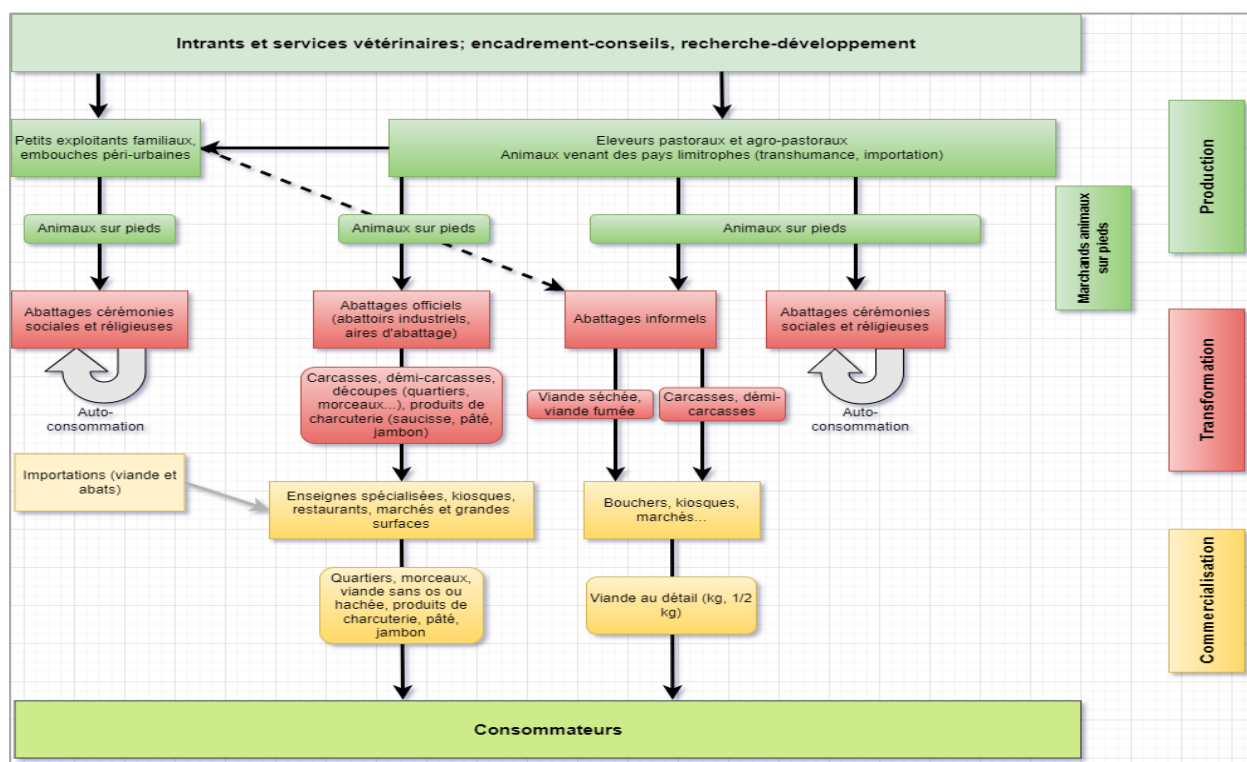
Agro-industry includes industrial activities of production, processing and marketing of agricultural products. The process up to the marketing of the finished product involves the producers of raw materials, the processing units, economic traders, as well as the Structures and Partners supporting production and processing.

Figure 1: Crop production chain of value



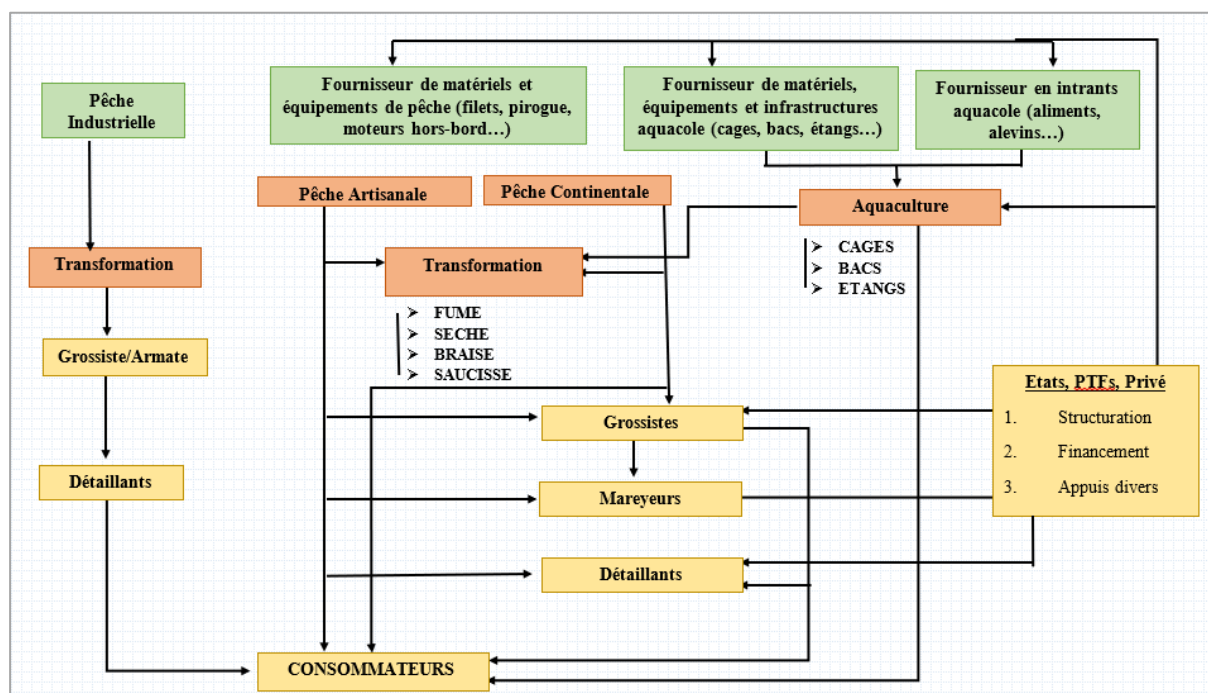
Source: MINPMEESA

Figure 2: Livestock production chain of value



Source: MINPMEESA

Figure 3: Fisheries production chain of value



Source: MINPMEESA

2.2. INSTITUTIONAL AND LEGISLATIVE FRAMEWORK OF THE AGRO-INDUSTRY SECTOR

2.2.1. Institutional framework of the agro-industrial sector

With the implementation of Partnership and Marketing Agreements, countries define interventionist and protectionist measures to position themselves on the international market, but also to promote the consumption of local products. These included: (i) internal support; (ii) operating subsidies; (iii) import restrictions. These measures result in the definition of laws and implementing texts with the aim of boosting local production and lowering the level of imports. As part of the implementation of the SND30, its applications find justification in the implementation of the import-substitution mix and export promotion.

With regard to the agro-industry sub-sector, the Cameroonian institutional landscape includes several actors who play an essential role in the chain of value, in particular the State (ministerial departments, Decentralized Territorial Communities), Technical and Financial Partners development and the private sector (including socio-professional organizations).

The state in its regulatory, monitoring and arbitrating role, draws up texts to ensure the smooth running of chain of value marketing operations. Through its various structures, it oversees the application of the said texts. The ministerial departments heavily involved in the definition of policy in favour of the emergence of the agro-industrial sector are: Ministry of Agriculture and Rural Development (MINADER); the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA); Ministry of Industry, Mines and Technological Development (MINMIDT); Ministry of Small and Medium Enterprises, Social Economy and Handicrafts (MINPMEESA); The Ministry of Commerce (MINCOMMERCE); The Ministry of Economy, Planning and Regional Development (MINEPAT), the Ministry of Scientific Research (MINERESI); the Ministry of the Environment, Nature Protection and Sustainable Development (MINEPDED) ; Ministry of Public Works–(MINTP), Ministry of Finance (MINFI); the Ministry of Decentralization and Local Development (MINDDEVEL); the Ministry of Transport (MINTRANS), the Ministry of Cadastre and Land Affairs (MINDCAF), the Ministry of Defence (MINDEF). The synergy of the actions of these ministries should facilitate the development of the different sectors.

Also, with decentralization and in application of Decrees No. 2010/0242/PM and No. 2010/0244/PM of February 26, 2010, certain powers in the promotion of agricultural production and rural development activities, the promotion of pastoral and fish farming, were transferred to the Communes as of the 2010 budget year. In addition, the communes are already

stakeholders in activities related to forest and wildlife management; they are also managers of the part of the financial resources coming from the payment of surface royalties of the forest concessions due to them at the communal level (20%) and of the supervision of the management of the part due to the neighbouring communities (10%).

As regards the Technical and Financial Partners, there are many who work alongside the State to support the development of the agro-industrial sector. We distinguish:

- multilateral cooperation made up of United Nations organizations (FAO, IFAD, WFP, UNICEF, OIT, UNFEM, ECA, OIE, UNFCCC, UNDP, UNEP, etc.), the World Bank (WB), the European Union (EU), the African Development Bank Group (ADB), the Islamic Development Bank Group (IDB), the Arab Bank for Economic Development in Africa (BADEA) the Organization of the Conference (OIC), the Global Environmental Facility (GEF, managed by the World Bank), the International Trade Center (CCI, REDD+ etc.) .
- bilateral cooperation relating to relations between Cameroon and France (AFD), Spain (AECID), Canada (ACDI), Germany (KfW, GIZ), the USA (USAID), Japan (JICA), South Korea (KOICA), the Netherlands, China, Brazil, Venezuela, Israel, Egypt, Turkey, India, Belgium and Morocco.

As for the structures under supervision and the actors of the sector, they are distinguished according to the type of production (plant, animal and halieutic). The institutions under supervision being made up of organizations for research and facilitation of the marketing of agro-industrial products, and the actors made up of producers, industrialists and traders of these products.

Transversally to these different types of production, there is the National Agricultural Research System (SNRA) which is essentially based on the Institute of Agricultural Research for Development (IRAD), the Chamber of Agriculture, Fisheries, Livestock and Forests (CAPEF) which constitutes the advisory and professional body of the interests of the sector with the public authorities.

a) Structural sub-supervision and plant production actors

Table 3 : Some actors according to the vegetable chain of values

Chain of values	Supervised structures / Actors
Cocoa/coffee	<ul style="list-style-type: none"> - ONCC - FODECC - SODECEAO - CICC
Corn	<ul style="list-style-type: none"> - PNAFM - NARS - CAPEF - SPC - EPA - NUTRICAM - GILANN - Bunny - SOFAL
Cassava	<ul style="list-style-type: none"> - NARS - CAPEF - SOCASPISCAM - PROCOMA - Unitrans SA - Utram
Rice	<ul style="list-style-type: none"> - AFRICARICE NGO - SEMRY - UNVPA - SONAM Cameroon - OLAN Company - CAMSA - AGRIEX CAMEROON SARL
Palm oil	<ul style="list-style-type: none"> - SPFS - PAMOL - CDC - SOCAPALM - SAFACAM
Sugar	<ul style="list-style-type: none"> - SOSUCAM - Modern candies from Cameroon - African sugar Distribution Company. - NOSUCA, SUMOCAM for processing imported granulated sugar - Breweries - ACDIC - FERMENCAM

Bananas	<ul style="list-style-type: none"> - Technical Assistance to the Banana Export Sector (ATFBE); - European Union Delegation (1958); - Cameroon Banana Association (ASSOBACAM) - African Center for Banana and Plantain Research (CARBAP) - Penja Plantation Company (PHP) - Cameroon Development Corporation (CDC) - Mbanga Plantation Company (SPM) - Boh Plantations Limited (BPL)
Millet/sorghum	IRAD

Source: MINPMEESA

b) Supervised structures and actors in animal production

The animal production sub-sector in Cameroon is governed by an institutional and political framework whose implementing and executing body is the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA).

Table 4: Some sub-supervisory structures/actors according to animal chain of values

Chain of values	Supervised structures/Actors
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Meat and Milk	<ul style="list-style-type: none"> - The Society for the Development and Exploitation of Animal Production (SODEPA); - The Mission for the Development of Artisanal and Maritime Fisheries in Cameroon (MIDEPECAM); - The Special Mission for the Eradication of Tsetse (MSEG); - The National Veterinary Laboratory (LANAVET); - The food analysis laboratory - National zoo technical and veterinary training centers (Maroua, Foumban and Jakiri); - Livestock and Fisheries Development Funds (CDEN, CDENO, CDPM).
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Source: MINPMEESA

- Professional organizations

Among the non-state actors in the development of this sub-sector, the private sector is experiencing significant development. There are also many producer organizations, some grouped into GICs, unions, federations, cooperatives and interprofessional organizations. The main federations of producer organizations are: the North West Cooperative Association (NWCA), the South West Farmers' Cooperative Association (SOWEFCO). The main interprofessional organizations are: the Poultry Interprofessional Network (IPAVIC), the National Confederation of Cattle Breeders of Cameroon (CNEB-CAM), the Association for the Promotion of Livestock in the Sahel and Savannah (APESS). In addition, two organizations representing and defending the interests of producers coexist: the National Platform of Professional Agro-Sylvo-Pastoral Organizations of Cameroon (PLANOPAC) and the National Concertation of Producer Organizations of Cameroon (CNOPCAM).

c) Fisheries production actors

Like animal production, fish production is under the administrative supervision of the Ministry of Fisheries, Livestock and Animal Industries (MINEPIA).

Table 5 : Some sub-supervisory structures/actors according to the fisheries chain of values

Chain of values	Supervised structures/Actors
Fish	<ul style="list-style-type: none"> - Livestock and Fisheries Development Funds (CDEN, CDENO, CDPM). - Company for the Development and Exploitation of Animal Production (SODEPA); - Mission for the Development of Artisanal and Maritime Fisheries in Cameroon (MIDEPECAM); - FREECAM - FRESH CAMEROON - ETS ZUMI - GREEN SEA - LEHAS - QUEEN FISH - SCIMEX

Source: MINPMEESA

2.2.2. Regulatory framework of the agro-industrial sector

The agro-industrial sector is framed by a set of texts which give a certain structuring to the various activities carried out within the framework of this sector.

In general, these are:

- Law No. 9 3 8/01 of July 14, 1988 relating to competition;
- Law No. 90/031 of August 10, 1990 governing commercial activity in Cameroon;
- Law No. 94/01 of January 20, 1994 on forestry, wildlife and fishing;
- Law No. 2001-635 of October 9, 2001 establishing an agricultural development fund;
- Law No. 2013-004 of April 18, 2013 establishing incentives for private investment in the Republic of Cameroon;
- Law 2016/004 of April 18, 2013 governing foreign trade in Cameroon;
- Law No. 2018-020 of December 11, 2018 on the Framework Law on Food Sanitary Safety;
- OHADA uniform act of December 15, 2010 on general commercial law
- OHADA uniform act relating to the law of cooperative societies;
- Decree No. 2002-520 of December 11, 2002 establishing and organizing the Interprofessional Fund for Agricultural Research and Advice (FIRCA);
- Decree No. 93-720-PM of November 22, 1993 setting the terms of application of Law No. 90-031 of August 10, 1990 governing commercial activity in Cameroon;

- Ordinance No. 2911-473 of December 2011 relating to Interprofessional Agricultural Organizations;

More specifically, depending on the type of production, we distinguish:

2.2.2.1. Vegetable production

- Law No. 69-246 of June 12, 1969 creating an Extension and Renewal fund for the development of oil palm cultivation, abbreviated FER-PALMIER;
- Law No. 95/11 of July 27, 1995 on the organization of the cocoa and coffee trade;
- Law No. 2001/014 of July 23, 2001 relating to seed activity;
- Law No. 2003/007 of July 10, 2003 governing the activities of the fertilizer sub-sector in Cameroon;
- Law No. 2003/03 of April 21, 2003 on phytosanitary protection;
- Law No. 2004/025 of December 30, 2004 amending and supplementing certain provisions of Law No. 2017-540 of August 3, 2017 setting the rules relating to the regulation, control and monitoring of activities in the palm/rubber sectors;
- Decree No. 035/2003 of February 4, 2003 ratifying the 2001 International Cocoa Agreement;
- Decision No. 001/MINIMIDT/CAB of 10 January 2005 creating a technical support unit for the Plantain Banana Sector Economic Reconversion Program (PREBAP);
- Decree No. 2005/1212/PM of April 27, 2005 regulates the packaging and marketing of cocoa beans;
- Decree No. 2005/1213/PM of April 27, 2005 regulates the packaging and marketing of green coffees;
- Decree No. 2010/242 of February 26, 2010 setting the procedures for exercising certain powers transferred by the State to the Municipalities in terms of promoting agricultural production and rural development activities;
- Decree No. 2019/075 of February 18, 2019 reorganizing the Institute of Agricultural Research for Development;
- Decree No. 2005/118 of April 15, 2005 organizing the Ministry of Agriculture and Rural Development.
- Decree No. 78/103 establishing and organizing the National Commission for the Agro-Pastoral Comice;
- Decree No. 2013-680 of October 2, 2013 on the attributions, organizations and operation of the Public Industrial and Commercial Establishment called "Extension and

Renewal Fund for the Development of Oil Palm Cultivation" abbreviated FER- PALM ;

- Decree No. 2015-127 of March 4, 2015 recognizing the interprofessional organization of the oil palm sector;
- Order No. 052/MINCOMMERCE/CAB of January 30, 2008 setting the general conditions for the marketing of Arabica and Robusta coffees;
- Order No. 0015/MINCOMMERCE/CAB 0015/MINCOMMERCE/CAB of August 17, 2010 setting the general conditions for the marketing of cocoa beans;
- Joint Order No. 2366 MINSANTE-MINIMIDT-MINCOMMERCE of August 24, 2011 making the standard on vegetable oils with a specific name, enriched with vitamin A mandatory;
- Joint Order No. 2369 MINSANTE-MINIMIDT-MINCOMMERCE of August 24, 2011 making the standard on wheat flour enriched with iron, folic acid, zinc and vitamin B12 mandatory;
- Interministerial Order No. 294/MINAGRI/MIRAH/MPMEF/MI/MCAPPME of August 20, 2013 setting the conditions for the creation, recognition and operating procedures of interprofessional agricultural organizations;
- Order n°068/PM of August 28, 2019 approving and making enforceable the procedural manual for granting subsidies in agricultural inputs and equipment in Cameroon;

2.2.2.2.Livestock and fish production

- Law No. 2000/017 of 19 December 2000 regulating veterinary health inspection and its appendix (list of zoonosis and diseases transmissible to humans according to the OIE);
- Law No. 2000/017 of December 19, 2000 regulating veterinary health inspection ;
- Law No. 006/of April 16, 2001 on the nomenclature and zoo-sanitary regulations for legally contagious livestock diseases subject to compulsory notification;
- Appendix 1, OIE List A and B diseases; appendix 2, definitions taken from the International Zoo Sanitary Code;
- Decree No. 74-991 of December 16, 1974 creating a Marine Fisheries Development Fund;
- Decree No. 75-528 of July 16, 1975 determining the terms of operation of motorized fishing boats in Cameroon;

- Decree No. 77-363 of September 9, 1977 establishing the Mission for the Development of Artisanal Maritime Fisheries;
- Decree No. 95/413/PM of 20 June 1995 laying down certain methods of application of the fishing regime;
- Decree No. 2001/546/PM of July 30, 2001 amending and supplementing certain provisions of Decree No. 95/413/PM of June 20, 1995 setting the terms of application of the fishing regime.
- Decree No. 2001/955/PM of November 1, 2001 setting the conditions for granting and exercising the health mandate applicable to the fight against epizootics and the inspection of foodstuffs of animal and fish origin;
- Decree No. 2001/955/PM of November 1, 2001 setting the conditions for granting and exercising the health mandate applicable to the fight against epizootics and the inspection of foodstuffs of animal and fish origin;
- Decree No. 2010/244 of February 26, 2010 setting the procedures for exercising certain powers transferred by the State to the Municipalities in terms of promoting pastoral and fish farming activities;
- Decree No. 2011/2585/PM of August 23, 2011 establishing the list of harmful or dangerous substances and the regime for their discharge into continental waters;
- Decree No. 2012/382 of September 14, 2012 on the organization of the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA);
- Order No. 9/MTPT of 8 June 1968 regulating the registration of canoes and similar non-motorized craft;
- Order n° 018/MINEPIA of January 01, 1970 creating aquaculture stations and nursery centres;
- Order No. 017/MINEPIA of September 29, 1987 on the organization and setting the operating procedures of fishing centers;
- Order No. 016/MINEPIA of September 29, 1987 on the organization and setting the operating methods of aquaculture stations;
- MINEPIA /MINSANTE of March 15, 2006 adding avian influenza to the list of livestock diseases deemed legally contagious and notifiable;
- Order No. 0025-MINEPIA-DIRPEC/SDPIA/SPI of 16 February 2000 prohibiting the pair trawl fishing technique;
- Order No. 003/MINEPIA of August 1, 2001 on the procedures for classifying establishments processing fishery products and exporting ornamental species;

- Order No. 002/MINEPIA of August 1, 2001 on the terms and conditions for the protection of fishery resources;
- Order No. 143/PM of 30 August 2010 laying down the procedures for carrying out inspections and controls of the technical services on board ships;
- Order No. 0013/MINEPIA of 20 July 2010 establishing the nomenclature of collective prophylaxis, health policy and veterinary health inspection operations for foodstuffs of animal and fish origin within the framework of the veterinary health mandate;
- Decision No. 0028/MINEPIA of March 17, 2006 suspending the importation of certain animal species susceptible to Highly Pathogenic Avian Influenza (Avian Influenza) and certain types of livestock equipment, with Decision No. 00164/MINEPIA of July 25, 2006 which modifies it;

2.3. OVERVIEW IN THE AGRO-INDUSTRY SECTOR

2.3.1. Plant industrial production

As part of the promotion of the development of agricultural sectors with a high stake in added value, the Ministry of Agriculture and Rural Development is at the forefront in defining policies for improving the productivity and competitiveness of the agricultural production.

In 2021, the production of cereals (rice, maize, sorghum) recorded an increase of 6.3% and compared to previous years, this production is down; the production of roots and tubers (cassava and potatoes) recorded an 8.7% increase.

Throughout this sequence devoted to industrial plant production, it will be a question of presenting the chain of value (production, processing, and marketing) of the strategic sectors identified: Cocoa/Coffee; Corn; Cassava; Sugar; Palm oil; Millet/Sorghum; Rice and Banana.

2.3.1.1 Cocoa Chain of value

i. Evolution of Cocoa production

Before the socio-political crisis in the North-West and South-West Regions, Cameroon was the world's 5th largest ^{cocoa} producer after Côte d'Ivoire, Ghana, Indonesia and Nigeria and, South- West was the main cocoa production area. With the exception of the northern part of the country, cocoa is grown in all the other regions of the country. The average cultivated areas per actor vary between 1.5 ha and 25 ha and the yields per hectare range from 280 kg/ha of dried cocoa beans to 700 kg/ha.

From 2015 to 2020, the average annual cultivated area is around 700,000 hectares, the annual production in 2020 in 290,000 tons.

Table 6: Evolution of cocoa bean production from 2015-2020

Year	2015	2016	2017	2018	2019	2020
Quantity produced (tons)	310,000	211,000	246,200	249,900	280,000	290,000
Yield per hectare	0.40	0.41	0.41	0.41	0.41	0.42

Source: FAOSTAT

From 2016 to 2020 the national production of dried cocoa beans increased from 211,000 tons to 290,000 tons. Of this production, more than 77% is exported in its raw state; for the 2018-2019 season, the quantity of dried beans exported stood at 241,000 tons.

In addition, according to the National Cocoa and Coffee Board (ONCC), Cameroon produced and marketed 295,163 tons of cocoa beans during the 2021-2022 cocoa season, compared to 292,471 tons during the previous campaign.

This level of production being driven by the Center and South-West regions, which are the main production areas (75.26% of national production during the 2020-2021 campaign and 76.57% during the 2021-2021 campaign). 2022). Moreover, for each of these last two cocoa campaigns, more than 70% of national production is exported in its raw state.

ii. Cocoa bean processing

In Cameroon, cocoa processing activities are carried out within industrial and artisanal processing units. Until 2022, the volume of cocoa beans processed in Cameroon is struggling to reach the 50% mark of national production that the government and industry players had set for 2020. According to the 'ONCC, Cameroon only locally processed 29.5% of its marketed production during the 2021-2022 cocoa season. This level of transformation is mainly carried out by industrial companies because of their more sophisticated transformation methods than those of artisans.

The last cocoa campaign reported 40 local promoters who ensured the artisanal processing of cocoa beans while five (05) industrial processing units these are:

✓ SIC Cacaos

Created in April 1949, the Cameroon Industrial Cocoa Company (Sic Cacaos) is the Cameroonian subsidiary of the Swiss agro-food firm Barry Callebaut. This company has dominated the cocoa processing activity in Cameroon for several years. During the 2019-2020 cocoa campaign, it processed around 75% (53,691 tons) of national production for this season. Its main products are cocoa powder, butter and mass, mainly intended for export.

✓ **ATLANTIC COCOA Corporation**

The Atlantic Cocoa Corporation is planning a 15,000 tonne crushing plant in Kribi for an investment of 40 billion. The quantity of cocoa destined for processing is estimated at 48,000 tons.

✓ **NEO INDUSTRY**

This industrial cocoa processing unit inaugurated in the West in April 2019 closed its first cocoa campaign (2019-2020) with 4,286 tons of beans processed despite its production capacity of 32,000 tons.

✓ **CHOCOCAM**

The Cameroun Chocolatery (CHOCOCAM) of the South African group Tiger Brands, proceeds to the complete transformation of the beans to offer a range of chocolate products to consumers in Cameroon and in some countries of the Congo Basin.

Its average transformation in recent years is around 2000-2200 tons per year, purchased from SIC Cacaos.

✓ **FERRERO**

The company Ferrero Cameroun SA operates in secondary processing and its products are all intended for export. It processed 717 tons of cocoa beans during the 2019-2020 campaign

iii. Marketing of cocoa

Each year, more than 70% of the national production of cocoa beans is exported in the raw state. However, the production (first transformation) of cocoa butter, powder and mass carried out by the companies SIC CACAO and company Ferrero Cameroon SA is essentially intended for export.

There are around twenty thirty bean exporting companies whose total bean exports are estimated at 186,255,288,746 tons of cocoa beans over the 2018-2019/2021-2022 season. These are particularly. Three (03) exporters achieved 67.96% of exports: TELCAR (37.66%),

USICAM/OLAM (22.6%) and SBET (10.25%), TELCAR (31%), OLAM CAM (19 %), COTEC (12%), ARGIA (8%), NDONGO ESSOMBA (7%), and AMS (6%).

The main destination countries are the Netherlands (67%), Indonesia (12%), Malaysia (8.97%) and Turkey (5.24%), China (4.88%) and Spain (3.13%). From 2015 to 2020, the quantity of raw cocoa beans exported decreases, ranging from 265,306 to 190,728 tons over this period. On the other hand, the exported quantities of cocoa paste and cocoa butter over this period are changing positively.

Table 7: Evolution of exports of cocoa beans and its derived products

Periods	Labels	Raw cocoa beans	Cocoa paste	Cocoa butter	Chocolates and other cocoa-based preparations	Total export of cocoa and cocoa products	% of the grand total of exports
2015	Q	265 306	15,131	9,722	3,222	293,380	3.89%
	V	454,322	31,254	19,910	6,774	512 260 793	21.34%
2016	Q	263,746	15,395	9,405	3,652	292 198	3.95%
	V	397 206	35,369	21,241	7,340	461 155 776	23.53%
2017	Q	221,667	23,425	14,989	3,657	263,738	4.05%
	V	234,099	41,094	26,491	7,414	309 098 172	16.42%
2018	Q	218,793	26,653	17,835	3,469	266,749	3.96%
	V	233 423	40,661	27,470	6,968	308 522 210	14.61%
2019	Q	218,002	27,577	19,631	3,802	269,012	3.49%
	V	288,862	44,167	34,183	7,161	374 372 461	15.65%
2020	Q	190,728	28,362	19,263	3,183	241,536	3.28%
	V	246,609	50,706	36,180	6,329	339 823 354	18.85%

Source: DGD/MINFI

Until 2016, exports in value of cocoa and derived products represented more than 1/5th of the country's ^{total} exports. As for cocoa powder, according to the FAO, exports stood at 16,275 tons in 2017 and stood at 19,090 tons in 2020.

With regard to imports of cocoa and its by-products, they are estimated at 3,801 tons in 2020 and represent 0.6% of the country's total imports in 2020.

Table 8: Evolution of imports of cocoa products

Period	2015		2016		2017		2018		2019		2020	
Labels	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Cocoa and its preparations	2,508	2,682	2,007	1,839	2,045	1,714	2,608	1,839	2,361	1,812	3,801	2,061
% of the grand total of imports	0.03%	0.08%	0.03%	0.06%	0.03%	0.06%	0.03%	0.05%	0.02%	0.05%	0.04%	0.06%

Source: DGD/MINFI

2.3.1.2 coffee Chain of value

i. Evolution of coffee production

Two main types of coffee are produced in Cameroon: Arabica coffee and Robusta coffee. Robusta coffee is grown in six (06) regions of the country (West, Littoral, Adamawa, East, North-West, and Center) unlike Arabica which is mainly present in the West, South-West and North-West. This distribution is due to the requirements of each crop and the climatic and soil characteristics of the regions. The advantage of the Robusta variety is that it does not require any special care during its cultivation and its yield is higher compared to Arabica. However, in terms of preference, Arabica is rated higher due to its flavours and low caffeine content.

In terms of quantity produced, Robusta represents almost 97% of national marketed coffee production. In 2017, total coffee production reached 36,540 tons; the yield was lower in the following years due to the aging of the plantations.

Table 9: Evolution of coffee production from 2015-2020

Year	2015	2016	2017	2018	2019	2020
Quantity produced (tons)	35,938	35,600	36,540	36,026	36,055	36 207

Yield per hectare	0.31	0.31	0.31	0.31	0.31	0.31
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Source: FAOSTAT

In addition, the annual report carried out by the National Office of Cocoa and Coffee (ONCC) indicates that the marketed production of coffee during the 2020-2021 campaign was 12,157 tons. In detail, Robusta production has fallen by half, from 23,239 tons in 2019-2020 to only 11,745 tons in 2020-2021, while that of Arabica (412 tons) only represents the third of the volume marketed during the 2019-2020 campaign (1,452 tons).

According to the CICC, this drastic drop in coffee production in Cameroon stems, among other things, from old age and the low productivity of orchards, the disinterestedness of young people due to low profitability, the hardship of work and more lucrative offers in other sectors of activities.

ii. coffee processing

The main products of coffee processing are coffee powder and husks. Coffee is also used in the preparation of liqueurs, confectionery and cosmetic products.

In Cameroon, there are two (02) major coffee processors: SOCOPACAM and UCCAO; the volume of processed products during the 2017-2018 campaign is 545,383 tons of Robusta for SOCOPACAM and 461,301 tons for UCCAO respectively. Next to them are the roasters (29) whose processing capacity is estimated at 1,014 tons for the 2020-2021 campaign. According to the ONCC, this volume of roasted coffee is up by 206.2 tons compared to the previous season. The Littoral region carries 90% roasted Robusta coffee and 68% roasted Arabica coffee; and during the 2020-2021 campaign, UCCAO roasted 49.1 tons of Arabica coffee, followed by Modern Coffee shop (43.3 tons) and Terrefic (43.1 tons).

iii. Marketing of coffee

Coffee in Cameroon is purchased from producers in its raw state and from roasters at a price differentiated by type and quality, negotiated and fixed by mutual agreement.

As well as raising the level of production, the exported volume of Robusta coffee is higher than that of Arabica coffee. According to data from the DGD, from 2015 to 2019, the quantity of coffee exported fell from 33,302 tons in 2015 to 18,213 tons in 2019.

Table 10: Evolution of coffee exports in Cameroon between 2016 and 2020

Periods		Coffee	Of which Arabica coffee	and Robusta coffee	Other coffee products
2015	Q	33,302	2004	31,163	135
	V	31,401	3,081	27,990	330
2016	Q	33,002	1,943	30,914	145
	V	28,804	3,021	25,453	330
2017	Q	24,133	1,730	22,273	130
	V	23,935	2,631	21,027	277
2018	Q	18,981	1,146	17,765	70
	V	18,870	1,504	17,116	250
2019	Q	18,213	859	17,213	141
	V	14,675	979	13,319	377
2020	Q	21,373	990	20,290	93
	V	15,837	1,183	14,412	242

Source: DGD/MINFI

According to the FAO, green coffee exports are estimated at 13,210 tons, roasted coffee at 21 tons and extracted coffee at 37 tons in 2020.

With regard to imports, according to FAO data, Cameroon imported 27 tons of green coffee and 43 tons of roasted coffee in 2020. Imports of coffee extracts and substitutes containing coffee are respectively valued at 287 and 4 tons in 2020.

Table 11 : Imports of green coffee and derived products (tons)

Products	2015	2016	2017	2018	2019	2020
green coffee	9	5	12	13	10	27
Roasted coffee	29	23	44	39	41	43
Substitutes containing coffee	1	18	0	2	4	4
Coffee extract	532	583	469	680	861	287

Source: FAOSTAT

2.3.1.3 Maize Chain of value

i. Evolution of corn production

From its scientific name Zeamays, corn is the third most cultivated cereal in the world after wheat and rice. Worldwide, it plays a very important role in human and animal nutrition. In Cameroon, seven (7) out of ten (10) people eat maize in various forms. Several varieties have been developed by IRAD, in particular CMS (Cameroon Maize Selection) adapted to forest areas at low and medium altitudes; the CHC (Cameroon Highland Composite) adapted to the high altitude areas of the west of the country and the CHH (Cameroon Highland Hybrid) which are hybrids of the western highlands. In forest regions where two cropping cycles (or campaign) can be carried out per year, on the other hand, in the Sahelian regions and in the western highlands, there is more of a cycle.

From 2015 to 2018, maize production in Cameroon increased considerably, from 2,070,572 tons in 2015 to 2,199,127 tons in 2018. This on an area that increased from 1,189,547 ha in 2015 to 1,268,372 ha in 2018. The yield per hectare over the period 2015-2018 is estimated at around 1.8 t/ha on average per year.

This increase in production can be associated with the fact that there has been training for farmers on technical production routes, and the use of fertilizers and the increase in cultivated land.

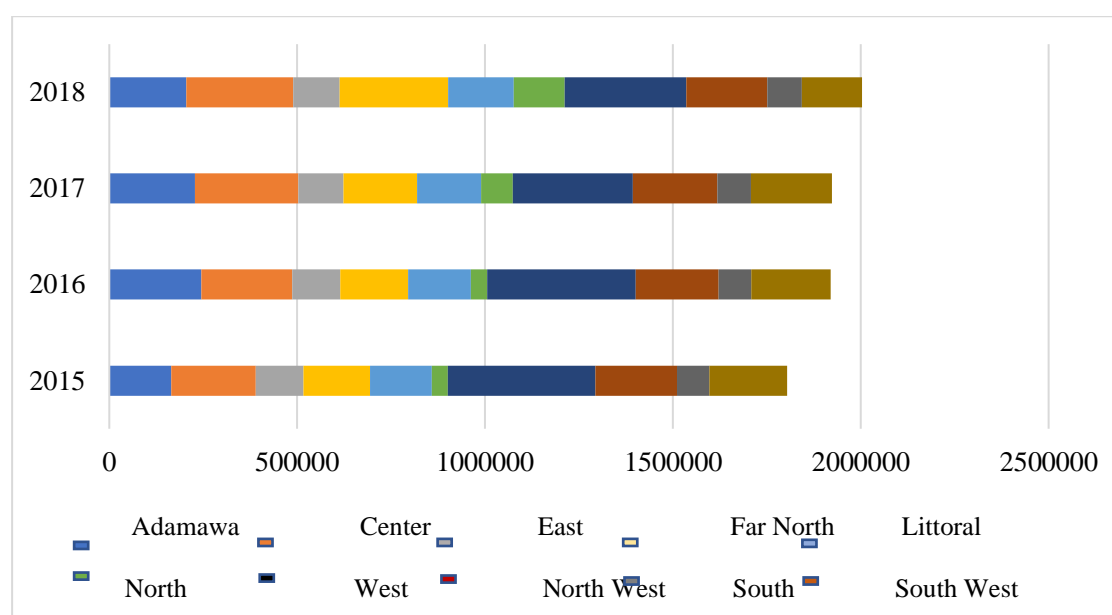
Table 12: Evolution of maize production and area from 2015 to 2018

Year	2015	2016	2017	2018
Maize production (t)	2,070,572	2,164,003	2,187,570	2,199,127
Cultivated area (ha)	1,110,400	1,189,952	1,205,210	1,268,372
Yield per hectare	1.86	1.82	1.82	1.73

Source: INS 2019 statistical yearbook

At the regional level, the distribution of maize production from 2015 to 2018 is mainly significant in the West region, followed respectively by the Center and Adamawa regions. The graph below specifies the values in tons of maize production at regional level over the period 2015-2018.

Graph 1: Regional production of maize production from 2015 to 2018



Source: INS 2019 statistical yearbook

- Production cost

According to FAOSTAT, Cameroon is the 14th African producer of maize in 2020 with 2,091,263 tons of this cereal consumed by more than 12 million people; i.e. two thirds of the population of Cameroon. Maize is grown by 700,000 family, artisanal and modern farms. This grain is the third foodstuff produced in Cameroon after cassava and plantain. It also contributes more than CFAF 150 billion to the Gross Domestic Product (GDP). The Government has set

up the National Maize Sector Support Program (PNAFM) with the objective of increasing national production by around 40,000 tons per year.

The cost of production thus changes depending on whether the production system is manual or motorized with a high level of use of inputs.

The manual cultivation system is mainly a matter for family farms; inputs (improved seeds, fertilizers, phytosanitary products) are hardly used and operating capital is reduced to basic tools (hoes, machetes, axes). Thus, expenses in production essentially boil down to the acquisition of inputs for the producers who use them and production tools.

For systems with motorized cultivation and high level of use of inputs, the method used is that of the cultivation budget where, for each production factor, the related cost is specified for 1 ha of maize; the cost of production per kg of maize is then calculated by relating the total cost/ha to the yield, according to several yield hypotheses. The breakdown of expense items corresponds to the classic distinction between intermediate consumption (inputs), remuneration for work, borrowed capital (financial costs), land, and finally depreciation. The opportunity cost of the operator's own capital is not taken into account; as for work, the use of employees being generalized to management tasks, there is no problem of the opportunity cost of the farmer's work. The costs presented are financial costs which are similar to economic costs insofar as the factors are neither subsidized nor taxed (with the possible exception of fuel).

- **corn demand**

Of the three components of corn demand (human/animal/brewery), the first is largely predominant (probably 80 to 90%) and its evolution therefore drives overall demand. The demand for this cereal is growing rapidly. It is estimated at 2.8 million tons in 2019 for a national production of 2.2 million tons, a production deficit of 0.6 million FCFA is therefore recorded.

ii. Corn Processing

Several actors are involved in the processing of maize into finished and semi-finished products.

- **Households** that process corn in the form of couscous, porridge and pastries;
- **Brewers** whose three (03) main operators are SA des Brasseries du Cameroun (and its subsidiary International Brasserie) belonging to the French group Castel and

which controls 74% of the country's brewing market; GUINNESS which belongs to the DIAGEO Group (15%) and UCB (10%).

- **MAISCAM** processing industry is 70% owned by the Abbo group and 30% by two public bodies (SNI and CNPS).

- **The poultry industry** mainly made up of feed mills. There are six (06) major feed mills (SPC, EPA, **NUTRICAM**, GILANN, and Rabbit house and SOFAL) all located in Douala with the exception of SPC located in Bafoussam; their production is estimated at 500 tons per year.

iii. Maize Marketing

Food crops (and their marketing) have a marked seasonality, maize is mainly collected from August to February. It is possible, in accordance with the classical organization of trade, to distinguish the agents by function: collectors, wholesaler-shippers (in the production zone), wholesaler-redistributors (in the consumption centers), and semi-wholesaler-retailer. The agent most frequently encountered is the «buyam sellam» (contraction of buy them, sell them) wholesaler generally ensuring the collection himself.

Maize is an important source of agricultural income for farmers. In general, the cultivation of corn has many outlets, among others, feed mills, livestock farms, brewing companies, households.

The marketing of dry maize remains in deficit from one year to the next over the period 2015-2020. Imports of dry maize are mainly intended for brewing companies; the import costs being relatively more accessible than the price at the national level (with regard to the cost of maize production at the national level). Over the analysis period, the year that recorded a high import value is 2017 with 45,968 tons of corn imported against only 98 tons exported.

Table 13: Imports and exports of dry maize

Imports				Exports	
Product	Year	Volume in tons	Values (in Thousands of USD \$)	Volume in tons	Values (in Thousands of USD \$)
dry corn	2015	9,082	2,817	220	164
	2016	31,959	9,303	279	256

	2017	45,968	10,000	98	32
	2018	13,711	6,463	11	1
	2019	14,936	3,305	59	9
	2020	28,489	5,523	220	164

Source: FAOSTAT

Over the period 2015-2020, corn flour is a by-product in high demand by the populations with regard to imports which are very high compared to exports. The year that recorded a high import value is 2019 with 36,011 tons of corn flour imported against only 9 tons exported.

Table 14: Imports and exports of products derived from maize (maize flour)

		Imports		Exports	
Product	Year	Volume in tons	Values (in Thousands of USD \$)	Volume in tons	Values (in Thousands of USD \$)
Corn flour	2015	18,333	10,041	5	24
	2016	18,896	10,954	12	5
	2017	20,337	10,629	720	337
	2018	13,560	68 96	763	406
	2019	36,011	14,492	9	5
	2020	23,420	8,612	28	24

Source: FAOSTAT

Unlike dry corn and corn flour, the marketing of sweet corn is in surplus in 2015-2020. The year that recorded a high import value is 2020 with 231 tons of maize imported against only 1802 tons exported.

Table 15: Imports and exports of corn-derived products (Sweet corn (prepared and preserved))

		Imports		Exports	
Product	Year	Volume in tons	Values (in Thousands of USD \$)	Volume in tons	Values (in Thousands of USD \$)
Sweet corn (prepared and preserved)	2015	188	165	1,242	353
	2016	208	189	1,594	388
	2017	259	224	1,676	416
	2018	263	246	1,782	491
	2019	229	416	1,800	500

	2020	239	261	1,802	502
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Source: FAOSTAT

2.3.1.4 Cassava Chain of value

i. Evolution of cassava production

In Cameroon, cassava is particularly grown in the agro-ecological zone of humid forest (center, south, east, west) Between 2016 and 2017, there is a slight increase in cassava production; this increased from 5,285,031 tons in 2016 to 5,290,061 tons in 2017, a significant increase of 5,030 tons compared to other years. However, during this same period, the cultivated area of cassava increased significantly, from 374,826 ha in 2015 to 555,115 ha in 2017, however the average yield per hectare fell over the period.

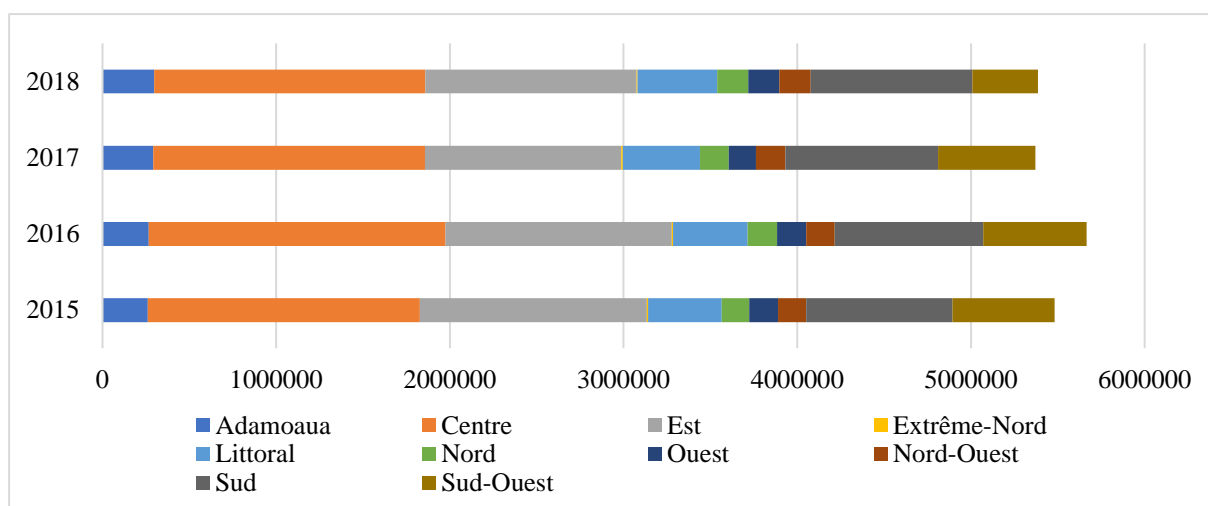
Table 16: Evolution of cassava area and production from 2015 to 2018

Year	2015	2016	2017	2018
Cassava production (t)	5,224,735	5,285,031	5,292,261	5,317,834
Cultivated area (ha)	345,827	374,826	555 115	561,242
Yield per hectare	15.11	14.1	9.53	9.48

Source: INS 2019 statistical yearbook

Between 2015 and 2018, cassava production is dominated by the Center region, followed consecutively by the East and South regions. In 2018, the Far North region is completely invisible. The following graph shows the regional distribution of cassava production between 2015 and 2018.

Graph 2: Regional cassava production from 2015 to 2018



Source: INS 2019 statistical yearbook

- Cassava Production Cost

Cassava production systems are essentially manual, and labor costs can represent up to more than 90% of the cultivation budget. They correspond to plot preparation and maintenance work, root uprooting operations, as well as field-side transport to the village. The costs of the works vary from approximately 85,000 FCFA/ha to 200,000 FCFA/ha, i.e. between 13,000 and 31,000 FCFA/tonne (Hilary MAPPE, 2019).

ii. Cassava Processing

Cassava derives several by-products, the most represented of which are flour and starch. These products constitute inputs in the manufacture of wines, liqueurs and are also used in the textile, pharmaceutical, paper production, glue, and alcohol or starch industries. Several players are involved in the processing of cassava: SOCASPISCAM which transforms cassava into flour, semolina, starch; small units such as PROCOMA which produces starch and flour made from cassava, Unitrans SA and Utram specialized in processing cassava into starch. Alongside these players, there are GICs and training and research institutes such as the Incubation Center (CIP).

iii. Cassava marketing

Regarding marketing, cassava has the advantage of being sold from the leaves to the roots, as a raw, semi-finished or finished product. In terms of first marketing costs, the transportation costs borne by producers can vary from one to three depending on the distance between the assembly point and the processing unit. On average, these costs can represent less than 5% of the cost price per ton produced. The farm gate selling price varies from 65,000 FCFA/t to

100,000 FCFA/t. The selling price at the market varies from 70,000 FCFA/t to 105,000 FCFA/t. The variability of selling prices depends on several factors, in particular seasonality linked to the scarcity of products and the influence of transport costs (Hilary MAPPE, 2019).

2.3.1.5 Sugar Chain of value

i. Evolution of cane sugar production

The largest sugar cane production areas in Cameroon are located in Mbandjock and Nkoteng (Centre region) where the farms of the main sugar cane producer in the country are located: the Cameroun Sugar Company (SOSUCAM) is a company 72.72% owned by the French Group SOMDIAA (Company for the Organization, Management and Development of Food and Agricultural Industries); the rest of the capital is shared between the Cameroonian State and private shareholders. The company's sugar cane production is estimated in 2020 at 1,249,056 tons for an exploited area of 137,064 hectares. The average annual yield per hectare is around 9 tons.

Table 17: Production of cane sugar and area exploited from 2014 to 2020

Year	2014	2015	2016	2017	2018	2019	2020
Cane sugar production (t)	1,211,825	1,281,036	1,240,954	1,244,605	1,255,532	1,247,030	1,249,056
Yield per hectare (t/ha)	9.27	9.43	8.82	9.17	9.13	9.04	9.11

Source: FAOSTAT

ii. Processing of cane sugar production

The means of processing sugar cane are essentially modern, traditional and artisanal. Sugar cane is mainly transformed into lump and powdered sugar and the national supply is around 146,000 tons per year.

SOSUCAM, which is the main sugar unit in Cameroon, produces an average of 130,000 tons of sugar per year, including 70,000 tons of sugar cubes. This production under the brand «Princess Tatie" is available in different packaging including pods, sticks, pieces, doypacks 92% is intended for local consumption.

iii. Marketing

In 2020, the sugar deficit increased from 81,532 to 118,165 tons despite the increase in exports of 389 tons.

Table 18: Volume of sugar exports and imports from 2015-2020

		2015	2016	2017	2018	2019	2020
Export	Quantity (t)	622	146	296	149	144	533
	Value (Billions of FCFA)	358	120	152	148	122	136
Import	Quantity (t)	39,825	55,254	110,925	85,923	71,755	94,710
	Value (Billions of FCFA)	11,338	17,623	35,519	23,954	19 114	27,912

Source : DGD/MINFI

Also, for the 2022 financial year, the MINCOMMERCE only authorized four (04) companies to import sugar into Cameroon. These are: the Ketcha group (15,000 tons); Essong Sarl (7,000 tons); the collective of North-West and South-West importers (15,000 tons); the Liman & Son company based in Maroua (5,000 tons).

2.3.1.6 Palm oil chain of value

i. Evolution of palm oil production

Historically, oil palm plantations were born in Cameroon from 1898 with the German Debundcha Palm Company, then the first industrial plantations in 1907 under German colonization where the current SFPS (Palm Company) is located at Suisse Farm), then under the Franco-British regime there was " Pamol plantation limited " (PAMOL) in 1929 by the Unilever group and the "Commonwealth Development Corporation" (COMDEV) in 1947, which in 1968 became the " Cameroon Development Corporation" (CDC) (Lebailly and

Tentchou 2009) and after independence, the Cameroonian government took control of production with SOCAPALM (Cameroon Palm Plantations Company) and took over the existing companies: CDC, PAMOL and the SPFS.

Palm oil production in Cameroon is estimated at 364,036 tons in 2015 and 314,500 tons in 2018; i.e. a decrease of 4.75% over the period.

Table 19: Evolution of palm oil production

Year	2015	2016	2017	2018
Production (tons)	364,039	419,970	386,997	314,500

Source: INS, 2019

This production is mainly driven by the South-West (30.24%), Center (27.86%), Littoral (25.21%) and North-West (1.98%) regions. Production in the North region represents 5.55%; the Eastern region 3.43%, the Southern region 2.81% and for the Western region 1.93%

During 2020, palm oil production suffered a significant decline *compared* to previous years. The FAO estimates annual production at 210,000 tons in 2020 and observes an increase in 2021 to 265,000 tons.

For the transformation of oil for the production of palm oil, a distinction is made between artisanal oil mills with low extraction capacity of about 250 kg of bunches per hour, mini-oil mills and industrial oil mills with a capacity extraction ranging from 10 to 80 tons of bunches per hour.

- **SOCAPALM**

Founded in 1968, SOCAPALM is the largest palm oil production company in Cameroon. In 2021; the company reaches its new annual crude palm oil production record of 152,323 tons

- **SAFACAM**

The African Forestry and Agricultural Society of Cameroon (SAFACAM) created in 1962. Has 03 industrial production units and plantations of 9800 hectares in total area. In 2020, the company produced 16,543 tons of crude palm oil and 9,510 tons of palm kernel oil. Currently, oil palm activities represent 72% and rubber activity 28% of SAFACAM's turnover.

- **PAMOL PLANTATIONS**

PAMOL is a parastatal company specializing in the manufacture and marketing of palm and palm kernel oil. It is under the supervision of the Ministry of Agriculture and Rural Development. In 2019, PAMOL plantations achieves an annual production of 15,000 tons.

ii. Palm oil processing

The main products of palm oil processing are mainly refined palm oil. It is also used in the manufacture of cosmetic products and its waste is a source of energy.

Cameroon has palm oil production and processing units, the main ones being:

- CAMEROONIAN REFINING COMPANY MAYA & CIE

Created in 1994, SCR MAYA & Co is an agro-industrial complex specializing in the processing of vegetable oils. The company has five (05) refining units with an annual production estimated at 255,500 tons of palm oil, and two (02) soap units producing approximately 164,250 tons of soap per year.

- SAAGRY

The Agro-Industrial Company of the YOUSSE Group (SAAGRY) is a company specializing in the production and marketing of refined palm oil, household soap and derivative products for industrial use (fatty acid and stearin).

- SOPROICAM

The Soya Beans Processing Industry of Cameroon (SOPROICAM) is a company created in 2006 working in the transformation of soybeans into crude oil and soybean meal; the production of vegetable oil, refined oil and soap. In 2019, SOPROICAM operates more than 20,000 hectares of land.

iii. Marketing of palm oil and its derivatives

In Cameroon, palm oil exports are mainly in raw form. In 2020, the quantity exported is estimated at 1,297 tons.

Table 20: Evolution of palm oil exports

Year	2015	2016	2017	2018	2019	2020
Quantity (in tons)	2,344	1,574	1,444	1,544	1,643	1,297
Value (in billions of FCFA)	2,086	1,395	951	1,247	1,473	664

Source: DGD/MINFI

As for imports, as of 2017, imports of crude and refined palm oil exceed 55,000 tons per year.

Table 21: Evolution of palm oil imports (crude and refined)

Year	2015	2016	2017	2018	2019	2020
Amount	13,794	30,770	58,003	56,011	56,345	58 164
Value	7,786	18,250	31,499	25,787	24,296	25,694

Source: DGD/MINFI

2.3.1.7 Millet/Sorghum chain of value

i. Evolution of millet and sorghum production

Millet and Sorghum are grown mainly in the northern zone of Cameroon, more mainly in the departments of Benoue and Mayo Rey (Northern region), Diamare and Mayo Kani and Mayo Tsanaga (Far North Region). The growers of these speculations are supported by MINADER and IRAD, which ensure the availability of seeds appropriate to the rainfall in the environment.

The yield per hectare is estimated at 1.34 T/ha for a production estimated at 1,232,490 tons in 2018.

Table 22: Evolution of Millet and Sorghum production in Cameroon

Year	2015	2016	2017	2018
Production in ton (t)	1,040,902	1,095,779	1,138,243	1,232,490
Yield per hectare (t/ha)	1.11	1.14	1.48	1.34

Source: INS, 2019

80% of millet and sorghum production is intended for domestic consumption; the remainder covers animal feed and the needs of brewing factories.

ii. Millet and sorghum processing

Flour is the primary processing of grains. It is used as a base for making pastry. The particularity of millet and sorghum is that its consumption (in the form of flour and pastries) is mainly in the areas where they are produced.

iii. Marketing of millet and sorghum

The marketing of millet and sorghum at the national level concerns producers, households, companies in the agro-pastoral sector and brewing companies.

In Cameroon, imports and exports of millet and sorghum (grain and flour) are nil. However, beverage exports made from these products could be capitalized in beer exports.

2.3.1.8 Rice Chain of value

i. Rice production level

Rice cultivation in Cameroon is mainly done in the northern zone. The West, North-West and South-West regions are also involved in rice production at the national level.

There are 4 types of cultivated rice:

- **Rained rice or mountain rice** grown in Tonga, Bandounga , Santchou , Limbé, Ndop , Babungo and in the plain of Mbo ;
- **Lowland rice** is grown on approximately 22,000 ha and occupies approximately 50,000 households. It is mainly grown in Mbaw - plains, Mont Mbapit , Ntui , Ebolowa, Akwaya , Tonga- Makénéné
- **Irrigated rice** grown mainly in Yagoua by the Société d'Expansion et de Modernisation de la riziculture de Yagoua (SEMRY)
- **Flooded rice** : almost not grown in Cameroon

The cultivation remains for the most part artisanal and the main materials used in the production process of these different types of rice are manual (Cutter-cutter, hoe, daba, Hoe) and mechanical (Plow and oxen, Tractor, Motocultivator)

On average, over the period 2017-2020, Cameroon produces 299,977 tons of rice. Although the quantity of rice increases over the period, it is important to note that the yield per hectare decreases with the increase in the area cultivated.

Table 23: Evolution of rice production in Cameroon between 2017 and 2020

	2017	2018	2019	2020
paddy rice	260,000	300,000	311 406	328,503
Yield per hectare	1.33	1.23	1.16	1.21

Source: FAOSTAT

ii. Rice processing

The main rice processing company in Cameroon is the SEMRY. It produces 100,000 tons of paddy rice per year, which is equivalent to 80,000 tons of milled rice. In addition, SEMRY aims to produce 1,000,000 tons of paddy per year, or 700,000 tons of white rice. To do this, it aims to collect paddy from producers and process it locally and intends to develop 100,000 hectares of rice production, a new strategy that will enable Cameroon to be a rice exporter.

According to the INS (National Accounts 2019), national production is estimated at 217,280 tons and national demand (final household consumption and change in stocks) is equivalent to 757,000 tons. This gap could be explained by informal exports to neighbouring countries.

iii. Marketing of rice

Marketing activities in the rice sector depend on the volume of exports and imports.

Regarding exports, in 2020 Cameroon exported 14,194 tons of milled rice and 14,283 tons of paddy rice according to FAO data.

Table 24: Evolution of rice exports from 2017 to 2020 (in tons)

Products	2017	2018	2019	2020
Milled rice	16,706	19,869	7,575	14,194
Broken rice	-	190	23	88
husked rice	254	3,282	-	-
paddy rice	479	3,033	-	-
Paddy rice (paddy field)	17,246	24,984	7,598	14,283

Source: FAOSTAT

In 2018, SEMRY set itself the goal of producing half of national production thanks to subsidies. Given the increase in its production, in 2020 it became the leading net exporter of (unhusked) paddy rice in Nigeria, at prices higher than those charged on the local market.

As for rice imports, in 2020, they accounted for 6.01% of import volume. Over the period, the quantity of imported rice evolved unevenly. It was in 2019 that Cameroon reached 894,486 tons of imported rice.

Table 25: Evolution of rice imports over the period 2015-2020

Period	Labels	Rice	Contribution to imports (%)
2015	Q	707 247	8.29
	V	181 127	5.07
2016	Q	614,400	7.66
	V	143,636	4.65
2017	Q	728,443	9.13
	V	183,726	6.02
2018	Q	561 112	6.87
	V	144 121	4.23
2019	Q	894 486	8.93
	V	231 831	6.01
2020	Q	591 597	6.61
	V	159,871	5.03

Source: DGD/MINFI

Imports into Cameroon are made through economic operators with an authorization from the Ministry of Commerce to import rice. For the 2022 financial year, the Government has selected fourteen (14) companies that will be responsible for the said imports.

They have been accredited, each with a limited number of tons to import. 70,000 tons for Olam Cam and Sonam , 60,000 tons for Safrip (Ketcha Group) and Quifeurou , 50,000 tons for Soacam, 20,000 tons for Sorepco , 15,000 for Sotracodim and Africa Trading, 7,500 tons for Moi foods , Trad'in , Avanti Cameroon and Socia , and finally 5,000 tons for Eco Foods Ltd and Liman & fils.

2.3.1.9 Banana chain of value

i. Production of plantain/sweet bananas

In Cameroon, plantain is traditionally grown extensively in combination with other food crops but can be grown intensively for better yields. There are seven (07) major varieties of plantain in Cameroon:

- **French giant plantain:** “ *Essung* ”; “ *Ovang* ”; “ *zueEkon* ” ; “ *kama* ”; “ *muenaLiko* ”
- **French medium or small plantain:** “ *Alou vini* ”; “ *Mekintu* ”; “ *Elat* ”; “ *At* ”; “ *Eak* ”; “ *Alata* ”; “ *Kelongsise* ”; “ *Innyale* ”; “ *obel* ”;
- **French dwarf plantain:** “ *NjockKon* ”;
- **Bastard:** “ *Ngomba* ” “ *Liko* ”;
- **False horn :** “ *Maliwa ma* ”; “ *Ebang* ”; “ *Ebanga* ”; “ *M'banga* ”; “ *Esang* ”; “ *Amoung* ”; “ *Gospel* ”;
- **Dwarf false horn ;**
- **True horn :** “ *Mota mo* ”; “ *Liko* ”; “ *Monga* ”; “ *Love* ”; “ *One hand plenty* ”.

Plantain cultivation extends over an area of around 300,000 km², i.e. approximately 63% of the national area and covers 07 southern regions of Cameroon including the Centre, East, Littoral, North-West, West, South, Southwest, and a department of Adamawa (Mayo Banyo). As for the sweet banana, it is grown in 9 out of 10 regions (except the Northern region). Plantain production in Cameroon is dominated by three large companies. These are: the Penja Plantation Company (PHP); Cameroon _ Development Corporation (CDC); Mbanga Plantations Company (SPM) and Boh Plantations Limited (BPL).

In 2015, Cameroon was the 1st plantain producing country in the African, Caribbean and Pacific (ACP) countries and 5th worldwide, with an annual production of 278,450 tons. But since 2017, the banana-plantain sector has recorded a vertiginous drop in its production and exports. That year, the former fifth largest banana producer in the world produced around 213,000 tons of bananas, a drop of 30,000 tons compared to 2016 when it was at 243,000 tons.

This downward trend will continue in 2018 with an export of 60,000 tons of bananas in the first quarter against 78,000 tons a year earlier. And in the first half of 2019, Cameroon exported 43,721 tons of bananas. This represents a drop of 61% compared to the same period in 2018. Indeed, these exports were at 113,600 tons in the first half of last year, a drop of 69,879 tons in absolute value. In 2020, the trend is still continuing with drastic drops in exports, the Cameroun's Banana Association (ASSOBACAM) indicated that 14,965 tons of bananas were produced and 13,847 tons exported, compared to 19,737 tons in the same period in 2019. This reveals a gap of 5,890 tons. According to ASSOBACAM and the African Center for Research on Banana and Plantains (CARBAP), this fall in the level of production in the plantain sector

is the result, among other things, of insecurity in the main production areas (North-West and South -West), the scarcity of seedlings, the lack of funding.

ii. Sweet Banana Processing

The processing of sweet bananas in Cameroon is very low, because it is carried out on a small scale, and in an artisanal way by Social Economy Organizations and Artisans. Indeed, in this process the banana is transformed into flour, which will be used to prepare other sweet banana-based food products, as well as liqueurs.

iii. Marketing of plantain

Exports to Cameroon do not evolve linearly over the period 2015-2020. In 2020, the country exported 191,653 tons of bananas against 295,180 tons in 2016.

Table 26: Evolution of banana exports from 2015 to 2020

Product	2015		2016		2017		2018		2019		2020	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Sweet bananas and plantains	283,436	37,306	295 180	38,814	275,717	36413	217 177	34180	184,370	24,300	191,653	25,048

Source: DGD/MINFI

Furthermore, data from ASSOBAACAM indicates that PHP is the largest exporter of bananas (including plantain) with nearly 90% of total banana exports in 2019 and 2020. The company is followed by BPL (about 8% of national banana exports) and the CDC (no exports made in 2019 and 3% in 2020).

2.3.2. Livestock and fish production

2.3.2.1. Meat and milk chain of value

i. Evolution of meat and milk production

In Cameroon, there are three agro ecological zones in which cattle breeding is practiced: the Sudano-Sahelian zone which extends over the North and Far North regions; the zone of the high Guinean savannahs which extends over the Adamawa plateau and part of the Eastern region; and the western highlands area which covers the North West and West regions. The climate and rainfall are more favourable to breeding in the last two zones. The other forms of breeding (poultry, pigs and small ruminants) are concentrated in the Centre, Littoral and West regions.

There are three (03) breeding systems in Cameroon:

- The traditional system, milk is considered a by-product (by-product) of beef, using species exclusively from landraces such as Goudali, Northern Red and White Fulani. Cows find their food in nature. Their daily yield is on average 1.5 liters per day.
- The Semi-intensive system which uses mixed livestock with appropriate pasture. The cows' feed is supplemented with an additional supply of rice bran, palm kernel, wheat bran, all in small quantities.
- The intensive system: the intensive system production farms are mainly found in the localities of Tadu, Bamenda and in the North region. They were most often created by private operators (industrialists, politicians) with the support of public institutions (research). They have become privileged places for testing crosses between local and exotic breeds in association with research centers or using livestock specialists (private veterinarians).

- **Quantities produced**

During the 2021 financial year, the information and data collection system of the Animal Production and Industries Development Program ⁵made it possible to capture production, all speculations combined, of 548,112 tons, i.e. a net increase in production by compared to fiscal year 2020 of 12,502 tons.

This result is below the projection (target) for the year 2021 which was 772,550 tons, i.e. an achievement rate of 70.95%.

The livestock sub-sector in Cameroon is dominated by cattle, sheep, pigs and poultry farming. Statistics show that the production of the livestock sub-sector is constantly changing, especially since 2014, and this progress is mainly explained by the policies implemented. The performance remains, however, below potential and above all does not yet allow the levels to be reached that can sustain the growth rates desired by the public authorities. Indeed, with regard to:

The cattle-meat sector: the production of this sector is estimated at 142,436 tons in 2018. In 2021, production was estimated at 125,194 tons for a target set at 183,069 tons. Cattle breeding is practiced mainly in the northern part of the country and in the western and north western regions.

⁵ The strategy of the Animal Production and Industries Development Program aims to increase the production of products and foodstuffs of animal origin. Its main interventions focus on improving the productivity and competitiveness of the animal sectors, in particular cattle-meat and milk, pork, poultry farming and small ruminants in order to meet local consumer demand for proteins of animal

The pork industry. In 2019, pork production is estimated at 65,283 tons. This production fell in 2021 (41,105 tons). The pig breeding regions are the West, the Centre, the North-West and the Littoral.

Small ruminants sector: In 2019, the quantity of goat meat produced is 25,336 tons, the target for 2021 is 25,875 tons. The achievement rate is estimated at 107.37%, or 27,783 tons. Regarding sheep meat produced, the quantity in 2019 is 12839 tons and the target for 2021 is 13621 tons. The results are above expectations with an achievement rate of 149.75%, which is equivalent to a production of 20,397 tons.

This sector is mainly concentrated in the northern part of the country as well as in the West and North-West regions. The production systems show variable levels of intensification and the production exploited is divided between marketing (40.6%), direct consumption (36.6%) and savings (22.8%). Only 8.7% of production is processed.

The poultry sector: In 2019, the quantity of eggs produced was 86,355 tons. The target in 2021 was 89,843 tons. What could be achieved is 10,846 tons, representing an achievement rate of 116.67%. Regarding poultry meat, the quantity produced in 2019 is 129,242 tons, the target for 2021 was 134,464 tons. What could be achieved is 52,679 tons, representing an achievement rate of 39.18%.

This sector is marked by the very clear coexistence of a traditional breeding system with semi-intensive and intensive systems and with industrial production methods. Small-scale poultry farmers are organized into GICs, but few of these groups are affiliated to the Cameroon Poultry Interprofession (IPAVIC).

The milk sector: The production of this sector is estimated at 253,291 tons in 2020. The annual milk production is intended for dairies/processors (29.8% of the annual volume), direct consumers of fresh milk (25.5%) and self-consumption (16%). The rest supplies dairy kiosks and bars (14.7%), milk collection centers (7.4%) and retailers (5.5%).

The summary table below shows the evolution of national production between 2014 and 2019 and the main production basins by sector.

Table 27: Evolution of meat and milk production (in tons) between 2015 and 2020

National supply of animal products	Reference		Measure (Tons)				Main production basins
	2015	2016	2017	2018	2019	2020	

Cattle-meat		91874	91160	85901	83775	82302	80779	Far North (Adamawa, North, Far North), North West and West
Poultry		77492	76869	77653	80493	84911	85298	Center, Coast, South, West
Pork		28,150	40,614	50,442	62,749	53,878	55,602	North-West, Centre, West, Littoral
small ruminants		38 174	35,577	46,828	50,061	39,814	43,278	West, North West
Milk	Fresh cow's milk	179 168	181 147	178,031	178,517	179,012	179,507	Far North (Adamawa, North, Far North)
	Fresh goat milk	51,370	52,924	54,767	54,874	53,917	54,789	
	Fresh sheep's milk	20,057	18,808	18,964	18,955	18,974	18,995	

Source: FAOSTAT

Production cost

The estimate of the production cost depends on several factors depending on the breeding model (traditional, semi-intensive, intensive). In one or other of the three models, the principle of estimation can be summarized in three steps:

- Assess live meat production;
- Define the scope of the operation (livestock and surfaces);
- Estimate the charges (current, depreciation and additional charges).

The evaluation of these three parameters is a tedious task given the predominance of the traditional type breeding model. The actors in this sector being poorly structured, it is difficult to assess the cost of production.

ii. Meat and milk processing

The processing industry is mostly artisanal. 92.9% of the volume of beef processed is made by economic players using artisanal processes. The main by-products are dried meat, smoked meat, other food products derived from beef (beef pâté, charcuterie). With regard to pork, a distinction is made between minced meat, sausages, charcuterie products, cuts of pork. With regard to the processing of meat from small ruminants, only 8.7% of production is processed (dried and smoked meat) in an artisanal manner. As far as milk processing is concerned, the products offered are curdled milk, fresh milk, powdered milk, yogurt, butter and “butter oil”.

Private dairies exclusively use milk powders imported from Europe, such as:

➤ **CAMLAIT SA: Cameroonian dairy products company**

This unit created in 1972 by a group of Cameroonian entrepreneurs in the legal form of SARL (Ltd) had the objective of covering the Cameroonian market with good quality dairy products, in adequate packaging and at a competitive price.

The products are mainly made from powdered milk imported from Belgium, France and the Netherlands. For several years, CAMLAIT has introduced a variety of soy-based milk into its product range.

For this production, the company sources its supplies from the local market and, according to the CEO of Camlait, the production costs of soy-based yogurt are 50% lower than that made from imported milk.

➤ **SOTICAM (DOLAIT)**

Created in 2002, SOTICAM is a dairy company based in Douala. Its products (DOLAIT brand) are much more limited to 12.5 cl yoghurt pots. The company processes nearly 25 tons of powdered milk per year and this milk is mainly imported from the Netherlands and Belgium.

iii. Marketing of meat and milk

Most chicken production is sold to traders/collectors (75.6%) and, to a lesser extent, directly to live broiler customers (14.5%). Self-consumption remains low (3%) and even more, savings (0.6%). With regard to small ruminants, exploited production is divided between marketing (40.6%), direct consumption (36.6%) and savings (22.8%).

Generally speaking, the statistics show a very strong tendency to import products derived from meat and milk. The tables below present the situation of trade between Cameroon and abroad with regard specifically to these products.

Table 28 : Evolution of imports of animal products from Cameroon between 2014 and 2020 (Quantity in tons and Value in billions of FCFA)

Period	Labels	Living animals	Meat and edible offal	Milk and derivatives; eggs; Honey	Milk, powdered or condensed
2015	Q	151	1,551	22,482	20,670
	V	214	1,707	35 106	31 171
2016	Q	324	1,594	16,271	14,250

	V	227	1,780	23,665	19,709
2017	Q	366	898	17,823	15,714
	V	229	1,096	29,295	24,012
2018	Q	68	1,203	21,233	18,148
	V	536	1,363	36,942	28,701
2019	Q	103	1,195	17,010	14,604
	V	1,405	1,396	31,813	24,937
2020	Q	1,975	613	24,443	21,491
	V	1,153	944	41,438	35,636

Source: DGD/MINFI

Powdered and condensed milk is the most imported product (in tons) of imports of animal products (50%).

In more detail, the table above also shows imports of processed products of animal origin over the period 2013-2020.

Table 29: Imports of charcuterie products in tons between 2013 and 2020 (in tons)

Products	2013	2014	2015	2016	2017	2018	2019	2020
Pork cuts	4,997	1,211.5	1077	849	50	24	31	8
Sausages	661	668.48	453	254	122.1	284		
Beef pate	-	128.2	-	-	-	-	-	-
Various charcuterie	1,052	1449.4	1,392.7	1,737.34	1,431.2	991.6		
Dietary fats	1,823	1,785.02	2734	1,488	580	485		

Source: MINEPIA/DEPCS

Table 30: Imports of milk and dairy products in tons between 2013 and 2018 (in tons)

Products	2013	2014	2015	2016	2017	2018
liquid milk	11,714.0	12,264.4	16,132.0	10,169.1	7,128.8	6,517.6
Powdered milk	7,266.0	7,733.5	10,255.2	4,702.8	5,725.4	6,229.6
Butter	190.0	79.8	-	10.0	-	4.2
Cheese	493.0	290.2	205.0	234.4	185.0	202.8
Prep. Baby foods	2,925.0	3,680.7	2,757.6	2,472.5	1,683.2	375.5
Margarine	873.0	961.1	897.0	616.0	764.5	574.7
Yoghurts/creamery	225.0	289.7	598.4	579.9	365.3	469.3
Together	23,686.0	25,299.4	30,845.2	18,784.7	15,852.2	14,373.7

Source: MINEPIA/DEPCS

Exports

Exports of meat and milk in the form of raw materials or processed products have been very low over the past seven years with regard to the balance of payments and foreign trade drawn up by the National Institute of Statistics in 2019. Only exports of dehaired sheep skins were recorded between 2015 and 2018 as shown in the table below:

Table 31: Exports of meat and meat products between 2015 and 2018 (quantities in tons, value in millions of FCFA)

Products	2015		2016		2017		2018	
	Amount	Value	Amount	Value	Amount	Value	Amount	Value
Depilated sheep skins	85	62	2	1	6	5	41,560	30,015

Source: MINFI (DGD)

Prices of the various derivatives on the market

Table 32: Types of dairy products and their market prices

Types of products	Mark	Volume in ml	Manufacturers	Price (in FCFA)	Price in FCFA/litre
Fermented milk	Kossam	140	SOGE LAIT (bag)	100	714
Fermented milk	Kossam	200	SOGE LAIT (bag)	150	750
Fermented milk (penndiidam)	-	1000	Homemade	200	200
Sweet pasteurized milk	-	500	SOCOT LAIT	300	600
Sweet pasteurized milk	SHEPHERDESS	250	CAM LAIT	350	1400
Yogurt	Kossam	125	SOGE LAIT, in a jar	175	1400
Yogurt	-	150	Artisanal production, distribution in calabashes	100	700

Source: MINFI (DGD)

Table 33 : Types of meat products and their prices in the market

Types of products	Price (in FCFA) per Kilogram
Pork cuts	3000
Ground beef	3500

Beef sausage	3700
Smoked ham	1200
pork sausage	2800
Beef pate	4500

Source: MINFI (DGD)

2.3.2.2. Fish chain of value

i. Evolution of fish production

Fishing and aquaculture represent 8.6% of the GDP of the primary sector in 2020. In Cameroon, there are 3 main types of actors involved in fish production: aqua culturists who practice fish farming, fishermen (artisanal and continental) and ship-owners who practice industrial fishing on the seafront. The main aquaculture production areas are the Adamawa, Centre, Littoral, West and North-West regions through the exploitation of ponds and the main types of fish produced are catfish, tilapia and the carp. Nowadays the practice of fish farming is widespread in all regions of the country.

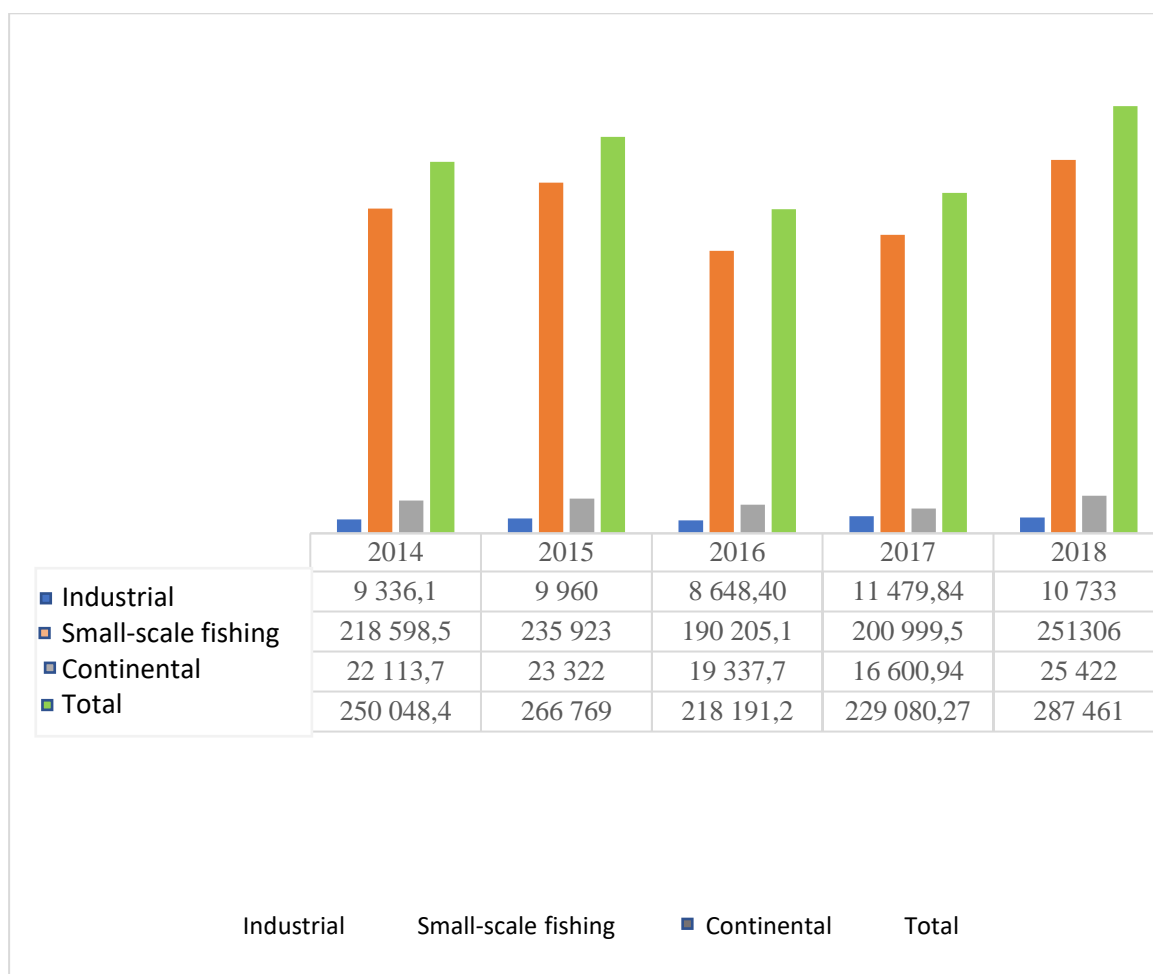
Industrial fishing mainly targets shrimp and demersal products and is practiced by trawlers. The total industrial fleet in 2018 is 44 boats (39 fish trawlers and 5 shrimpers) with a capacity of between 49 and 250 Gross Tonnage. Most industrial fishing vessels in Cameroon are owned by foreign companies (Nigeria, China, and Greece). In addition, there are five (5) ports: Port of Limbe, Port of Tiko, Port of Idenau, Autonomous Port of Douala and Autonomous Port of Kribi. However, only the port of Tiko and that of Douala receive industrial fishing vessels.

Artisanal maritime fishing is made up of nearly 13,000 boats of all types, with approximately 59,397 fishing gear of 12 varieties, mainly shrimp traps (35,137), and surface gillnets (8,342) and gillnets background (5,860). A distinction is made between dugout canoes, mixed canoes, plywood canoes and plank canoes.

This sector recorded a production of 214,784 tons in 2020. The efforts implemented as part of the improvement of the data collection system show a fish production of 223,420 tons.

The national demand for fishery products in Cameroon is estimated at more than 500,000 tons per year for a production of 335,000 tons in 2019.

Graph 3: Evolution of fish production between 2014 and 2018 (in tons)



Source: MINEPIA/DEPCS

From 2014 to 2018, the production of seafood products grew by 3.55% per year. This production is driven by small-scale maritime fishing. Aquaculture production is estimated at 10,000 tons per year.

ii. Fish processing

The main fish derivatives are dried, smoked, canned, powdered and sausage fish. On the national territory, the majority of fish is consumed in fresh, frozen and dried form. Drying and smoking are mainly done by actors in the informal sector.

iii. Fish marketing

Table 34: Import of fishery products

Period	Labels	Fish and shellfish	Frozen sea fish	Total imports of fishery products	Contribution to imports (%)
2015	Q	220,508	220 374	440,882	5.17
	V	166,823	166,436	333,259	9.32
2016	Q	237,381	237 152	474 533	5.91
	V	167,310	166,835	334 144	10.82
2017	Q	181,922	181,678	363,601	4.56
	V	114,902	114,294	229 196	7.50
2018	Q	225,708	225 294	451,003	5.52
	V	155,088	154,608	309,696	9.09
2019	Q	185,943	185,753	371,696	3.71
	V	133,259	132,822	266,081	6.90
2020	Q	201,667	201 181	402 849	4.50
	V	138 123	137,598	275,720	8.67

Source: DGD/MINFI

Q: Quantity (ton), V : Volume (Millions of FCFA)

Of imports of seafood products, frozen fish represent 49.9% over the period 2014 – 2018. By type of fish, mackerel represents the largest part of imports. CONGELCAM's imports represent 80% of the volume of seafood products.

Table 35 : Evolution of fish imports between 2014 and 2018 (in tons)

Products	2014		2015		2016		2017		2018	
	Value	%	Value	%	Value	%	Value	%	Value	%
mackerels	91,537	54.97	59,449	45.54	75,947	50.01	54,546	43.53	67,469	56.2
Sardines/sardinellas	12,352	7.42	8,434	6.46	3,608	2.38	3,314	2.64	8,361	6.96
Tilapia	13,564	8.15	5,943	4.55	1,872	1.23	2,568	2.05	4,726	3.94
catfish	108	0.06	1,461	1.12	301	0.2	599	0.48	382	0.32
Bars/ captain	15,800	9.49	9,155	7.01	5,062	3.33	4,729	3.77	3,825	3.19
various fish	31,217	18.75	43,503	33.32	64 161	42.25	53,968	43.07	30,580	25.47
Other hydrolysates	19	0.01	122	0.09	35	0.02	20	0.02	/	/
Tuna	/	/	/	/	/	/	3,992	3.19	3,109	2.59
Canned fish	1,911	1.15	2,486	1.90	872	0.57	1,564	1.25	1,605	1.34
Together	166,508	100	130,553	100	151,859	100	125,300	100	120,057	100

Source: MINEPIA/DEPCS

As for exports, they are mainly done informally in the form of dried and smoked fish.

2.4. DIAGNOSIS OF THE AGRI-FOOD SECTOR

The purpose of the diagnosis is to draw lessons from the implementation of past strategies, to analyse the strengths and weaknesses of the system, and to explore the opportunities, in order to facilitate the identification of a new development of agro-industry which should correct the weaknesses identified during the implementation of the DSCE, and allow progress towards better results as well as better quality of agro-industry products. After a description and analysis of past policies and as well as the performances achieved in agro-industry, followed by a presentation of current policies for the decade 2020-2030, the diagnostic analysis makes it possible to determine the strengths and weaknesses, opportunities and threats in relation to the indicators deemed relevant.

2.4.1. Analysis of past policies in agribusiness

2.4.1.1. Production component

The government's objective during the 2010-2020 decade was to implement a vast program to increase agricultural production in order to satisfy not only the food needs of the populations, but also of agro-industries. To this end, the government has modernized the production apparatus through:

- Accessibility and availability of production factors including land, water and agricultural inputs;
- Promoting access to technological innovations by strengthening the research/extension link;
- The development of the competitiveness of production sectors.

In addition, the government has focused on opening up production basins, in particular through the development of new agricultural roads and the rehabilitation of many existing roads. Government action has also focused on the construction of storage warehouses, the equipment of water points, the establishment of community granaries, the development of hydro-agricultural perimeters, etc.

In order to ensure the control of water for agricultural development and to promote the exploitation in all seasons of the potential in cultivable and irrigable land, government action has focused on the construction and development of protective dykes, basins dissipation, retention dams, protective dykes, etc.

i) Vegetable production

During the 2010-2020 period, the government's strategy in the field of plant production aimed to increase yields and areas in order to ensure food security and to strengthen growth and employment in this sector. Achieving this objective required the implementation of the following actions: (i) the promotion of medium and large farms through facilitation for access to land; (ii) encouraging the grouping and synergy of family businesses in the form of cooperatives or GICs; (iii) easy access to agricultural inputs (fertilizers and seeds) at reasonable prices for farmers' organizations; (iv) support and dissemination of new production techniques through mechanization; (v) easy access to agricultural credit through opening up to microfinance establishments;

(vi) ease of access to markets through better organization of internal marketing circuits; (vii) access to border markets and support for the promotion of agricultural products from Cameroon on external markets.

The government has set up numerous programs in various sectors using its own resources and external financing. These include: The Agricultural Chain of values Development Project (PDCVA); the Agricultural Sector Development Support Project (PADFA); the Agricultural Markets Investment and Development Project (PIDMA); the Support Project for the Production of Quality Plant Material (PAPMAV-Q); the Roots and Tubers Development Support Project (PADRT); the National Oil Palm and Rubber Development Project (PNDPHH); etc

ii) Animal production

In order to meet the nutritional needs of the populations and generate surpluses for export, the Government's strategy in the field of animal production consisted in promoting the improvement of short-cycle livestock farming (poultry, pig farming, small ruminants, etc..). It was also a question for the government to facilitate and encourage the creation of medium and large-sized ranches for cattle breeding, in order to move on to intensive breeding and likely to bring in foreign currency for export.

In the field of crop production, the government has also implemented numerous programs. These include: the Support Project for the Renovation and Development of Vocational Training in the Livestock, Agriculture and Fisheries Sectors (PCP-AFOP); the Youth Agro pastoral Entrepreneurship Promotion Program (PEA-JEUNES); the Competitiveness Improvement Program for Agro pastoral Farms (PCP-ACEFA); the Livestock Development Project (PRODEL); the Green Innovation Centers Project for the Agro food Sector (PROCISA); the Rural Development Support Project (PADER); the National Program for the Prevention and Control of Emerging and Re-emerging Zoonosis (ZOONOSIS); Livestock and Fisheries _ Development Project (LIFIDEP); the Livestock Marketing and Livestock Infrastructure Development Project (PD-COBIE); etc.

iii) Fish production

In the area of fish production, the government was concerned with granting particular support to the development of maritime and inland fishing, as well as to commercial aquaculture. With regard to maritime fishing, it was a question of granting more approvals to fishermen in order to better exploit the enormous fishing potential of the Bakassi zone and to fight against the resurgence of illegal fishing activities and the practices of irresponsible fishing. It was also a question of setting up an effective system of monitoring, control and surveillance

of fisheries. With regard to aquaculture, the activities were centered on the appropriation of innovations, the socio-professional structuring of activities and the strengthening of the capacities of the actors.

Some government projects implemented in the field of fisheries production: the Support Project for the Renovation and Development of Vocational Training in the Livestock, Agriculture and Fisheries Sectors (PCP-AFOP); the Aquaculture Entrepreneurship Promotion Project (PPEA); the Livestock and Fish Farming Chain of values Development Project (PD-CVEP); the Competitiveness Improvement Program for Agro pastoral Farms (PCP-ACEFA); etc

2.4.1.2. Processing component

Agro-industries constitute an important outlet for agricultural production and a powerful factor in the intensification of activities and the transformation of the rural world. The government's objective for agro-industry was the development of standards and quality on the one hand, and support for the establishment of new processing units for agricultural raw materials on the other.

The Government has adopted an approach by sub-sector, favouring the development of the chain of value. It was a question of negotiating and systematically setting up development plans for the processing industries of local products (local flour, sugar, palm oil, plantain, corn, cocoa, cotton, etc.) as well as those of the sub- animal industry sector (slaughtering and packaging, cold chains, etc.).

As a prelude to the shock expected from the opening of customs borders within the framework of the implementation of the Economic Partnership Agreement concluded with the European Union, the Government has set up a comprehensive program to upgrade businesses and support for standardization and quality within the framework of its general sector policy.

In addition, the Government should adopt a technological development and intellectual property strategy centered on the following points:

- the creation of an appropriate institutional and regulatory framework and an adequacy between technological development and vocational training;
- the implementation of technological development support structures;
- securing and strengthening the protection of industrial protection rights;
- the promotion of clean technologies in the industrial sector.

In terms of standardization, particular attention should be paid to sanitary and phytosanitary standards and compliance with the regulatory provisions of the main partners.

i) Performance achieved in agricultural production

The government's objective during the implementation of the DSCE was to substitute imports with local production. The implementation of government measures in several agricultural sectors has enabled the increase in production in various sectors. Statistics show that agricultural production has experienced an upward trend in several sectors from 2011 to 2019.

- **Plant production:** Regarding cereals, rice production increased from 174,089 tons to 399,679 tons; corn production increased from 1,572,067 tons to 2,372,491 tons; with regard to tubers, cassava production increased from 4,082,903 tons to 5,661,110 tons; the potato went from 196,687 tons to 420,891 tons. As for industrial export crops, it should be noted that cocoa production increased from 246,120 tons to 355,645 tons. Palm oil production increased from 354,076 tons to 423,707 tons, etc.
- **Animal production:** Beef production increased from 83,698 tons in 2011 to 107,110 tons in 2019; Poultry meat production increased from 97,144 tons in 2010 to nearly 103,331 tons of meat in 2019; Pig meat production increased from 58,281 tons in 2010 to nearly 42,833 tons of meat in 2018; Sheep meat production increased from 81,910 tons in 2010 to nearly 18,197 tons of meat in 2018; Goat meat production increased from 53,162 tons in 2010 to nearly 25,081 tons of meat in 2018.
As for the poultry sector, it should be noted that the quantity of meat produced increased by 26%, from 299,298 tons in 2011 to 376,915 tons in 2018.
Production during the year 2019 bent the curve and stood at 296,552 tons, a drop of almost 22% in one year. Milk production has seen a considerable increase from 154,635 tons in 2010 to 207,216 tons in 2019 with a production of 266,274.5 tons in 2018.
- **Fish production:** it was in constant growth between 2011 and 2019, it experienced an increasing evolution from 204,960 tons in 2011 to 335,158 tons in 2019. In industrial fishing, production increased from 15,021 tons to 14,178 tons. As for inland fishing, production increased from 32,862 tons to 45,933 tons. Finally, artisanal maritime fishing production increased from 157,077 tons to 265,968 tons.

Despite the increase in production in various sectors, performance remains below potential and above all does not yet make it possible to reach the levels that can support the

growth rates desired by the public authorities, which would allow a reduction in imports to ensure a supply regular consumers. For illustration:

- Rice imports increased from 366,483.35 tons in 2010 (96.7 billion FCFA) to 894.488 tons in 2019 (231.831 billion);
- Fish imports increased from 166,012.92 tons in 2010 (93.0 billion FCFA) to 185,752 tons in 2019 (132.822 billion FCFA);
- Wheat imports increased from 377,721 tons in 2010 to 857,940 tons in 2019.

ii) Performance achieved in the processing of agricultural products

The results of the chain of value approach adopted by the government during implementation have had only mixed results in the processing of agricultural products. To this end, the share of added value of agro-industry did not change significantly during the operationalization of the DSCE.

Indeed, the added value of agro-industry increased in absolute value from 1032.07 billion CFA francs in 2011 to 1452 billion in 2019. In relative frequency, the share of added value of agro-industry -industry remains weak. It fell from 7.45% in 2011 to 6.35% in 2019.

Table 36: Added value of agro-industry for the years 2011, 2014, 2017 and 2019.

Years	2011	2014	2017	2019
Total GDP	13,843.1	17276.3	20328.4	22854.8
Value added agro-industry	1,032.07	1084.2	1318.3	1452.0
Value added of agro-industry in total GDP (%)	7.45	6.27	6.48	6.35

Source: INS National Accounts 2019

The technological development and intellectual property strategy was not adopted and implemented during the execution of the DSCE. Furthermore, exports of products manufactured by agro-industry remain weak.

2.4.2. Analysis of Current Policies in Agro-industry

For the period 2020-2030, the government's objective is to sustainably increase the production of the plant, forestry, animal and fishery sectors to supply the interior and ECCAS + Nigeria markets with 2nd and 3rd processing food products through the further development of local raw materials and the promotion of exports.

2.4.2.1. Vegetable production

In the field of plant production, the government's objective is to improve the production, productivity and competitiveness of the following sectors: (i) cereals; (ii) roots and tubers; (iii) industrial products (cocoa-coffee-cotton-palm oil); (iv) fruits and derived products (pineapple, banana and plantain) and (v) niche products (cashew). In addition, it will be a question of improving the transformation through the further development of local raw materials in order to supply not only the domestic markets, but also ECCAS and Nigeria with 2nd grade food products through the promotion of exports.

Achieving this objective requires the implementation of the following actions:

- Support for access to inputs, materials, equipment and productive infrastructure;
- Support for access to harvesting and post-harvest materials, equipment and infrastructure;
- Reinforcement of surveillance, phytosanitary protection and the fight against the major emerging scourges of plants;
- Implementation of an effective Research-Extension and Advisory Support system establishing the approach in partnership with the actors involved;
- Structuring and support for OPAs and medium and large farms for their alignment with the legislation in force;
- Development of standards and labels and certification of agricultural inputs, materials, equipment and products.

2.4.2.2. Animal production

Cameroon's ambition is to BECOME THE NOURISHER OF CENTRAL AFRICA (ECCAS) AND NIGERIA. The government's objective in the field of animal production is to improve the production, productivity and competitiveness of the (i) cattle, (ii) pigs, (iii) poultry, (iv) sheep/goats, (v) beekeeping/unconventional and (vi) pets and equine/donkeys. Achieving the objective requires the implementation of the following actions:

- Construction and equipment of livestock infrastructure;
- Establishment of conditions for access to livestock feed;
- Genetic improvement and conservation of livestock with more concrete involvement and support from national zoo technical research, particularly for the milk sector;

- Support for different categories of breeders in the cattle, pig, poultry, sheep and goat sectors;
- Development of an effective system of Extension and Advisory Support to breeders with a partnership between the actors is reinforced;
- Support for the development of beekeeping, non-conventional sectors and pet breeding;
- Development and operationalization of structuring agro-industrial techno poles on the national territory;
- Strengthening the integration of agro-industrial sectors with other structuring industrial sanctuaries (energy, digital), bases (financing, infrastructure) and pillars (forest-wood);
- Improving the competitiveness of agro-industries by strengthening and sustaining upgrading programs.

2.4.2.3. Fish production

The objective in the field of fisheries production for the period 2020-2030 is to improve the production, productivity and competitiveness of the fisheries sectors and particularly aquaculture, and post-capture losses. In addition, it is a question for the government to supply the markets of the interior and ECCAS + Nigeria with food products of 2nd and 3rd transformation through the further development of local raw materials and the promotion of exports in the sub-Saharan Africa- fisheries production sector. Achieving this objective requires the implementation of the following actions:

- Supports for sustainable management of capture fisheries at the level of cooperatives, farms and fishing companies;
- Development of intensive aquaculture through (i) the construction, rehabilitation and equipment of aquaculture infrastructure and (ii) subsidies for the acquisition of quality aquaculture inputs;
- Development of an efficient system of Extension and Advisory Support for fisheries and aquaculture stakeholders based on the partnership between fish farmers and Research-Extension teams.
- Development and operationalization of structuring agro-industrial techno poles on the national territory;
- Strengthening the integration of agro-industrial sectors with other structuring industrial sanctuaries (energy, digital), bases (financing, infrastructure) and pillars (forest-wood);

- Improving the competitiveness of agro-industries by strengthening and sustaining upgrading programs.

2.4.2.4. Performance expected by 2030

i. Vegetable production

The targets set for plant production for the 2020-2030 period are very ambitious and correspond, for all the priority sectors, to an average annual increase in production of more than 9%.

With regard to the targets set for 2030 and the results observed during the 2014-2020 period, certain sectors (rice, cocoa, millet/sorghum, cassava, potato) are likely to achieve a satisfactory rate of achievement of their 2030 target, with the continuation or a moderate intensification of the investments currently granted by the Government and the private sector.

Other sectors, the most numerous, will require a markedly increased effort to reverse a downward or stagnant interannual trend in their production or to significantly accelerate their annual growth rate.

Table 37: Expected growth in production of priority sectors in 2030

Sector	Reference 2020 (Tons)	2030 target (Tons)	Average annual growth rate expected	Average annual rate of change 2014-2020
paddy rice	339,076	750,000	8.26%	30.0%
Cocoa	331 149	640,000	6.81%	5.5%
Corn	2,144,083	8,000,000	14.07%	3.1%
Cassava	5,492,522	10,000,000	6.18%	
Millet Sorghum	1,138,243	2,000,000	5.80%	8.2%
Soy	21,000	75,000	13.58%	-
Palm oil	386,997	800 000	7.53%	4.1%
Seed cotton	328,000	600,000	6.23%	-
Arabica coffee	34,294	200,000	19.28%	-4.0%
Robusta coffee	25,000	125,000	17.46%	-9.5%
Plantain	5,495,534	10,000,000	6.17%	0.0%
Banana	300,000	600,000	7.18%	1.5%

Source: SDSR/PNIA 2020-2030

ii. Animal production

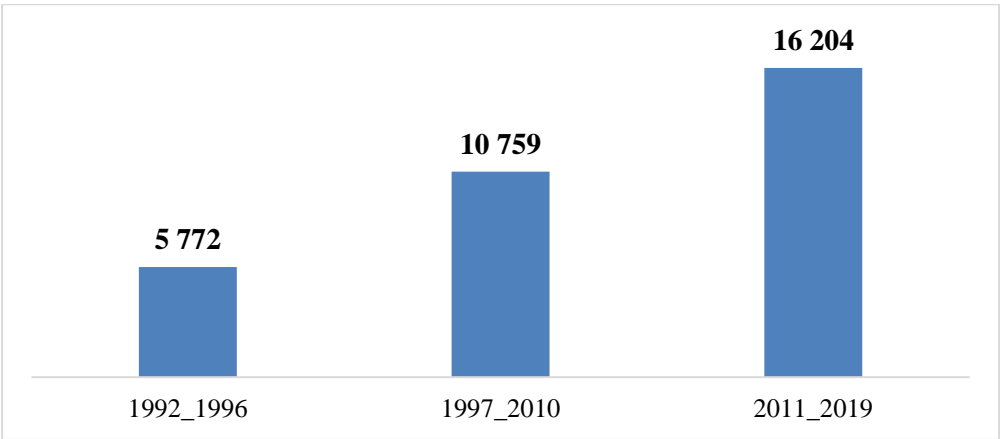
The targets assigned by the SDSR/PNIA 2020/2030 to animal production (cattle, poultry, small ruminants and non-conventional livestock) correspond to an average annual growth of 8.4%, i.e. more than double the change observed between 2014 and 2020.

Significant efforts will have to be made over the 2020-2030 period, particularly for the production of beef and poultry, insofar as these productions have shown an overall downward trend over the past 7 years.

In view of the average consumption of milk and dairy products, estimated at 14 kg/pers/year (FAO) and lower than the minimum requirement estimated at 22 kg/pers/year, the sector should make up for a production deficit of 8 kg/pers. /year, i.e. an overall annual volume of nearly 200,000 tons.

If the production potential of the five main basins (North-West, Adamawa, Far-North, West and North) were valued (170,000 tons), this deficit could be filled up to 85% but this supposes removing the main difficulties encountered by breeders which are the low performance of local breeds, the supply of complete feed, the low level of structuring of breeders, the difficulties of milk collection systems and the limited level of processing of production.

Graph 4: Evolution of average milk imports over the period 1992-2019 (in tons)



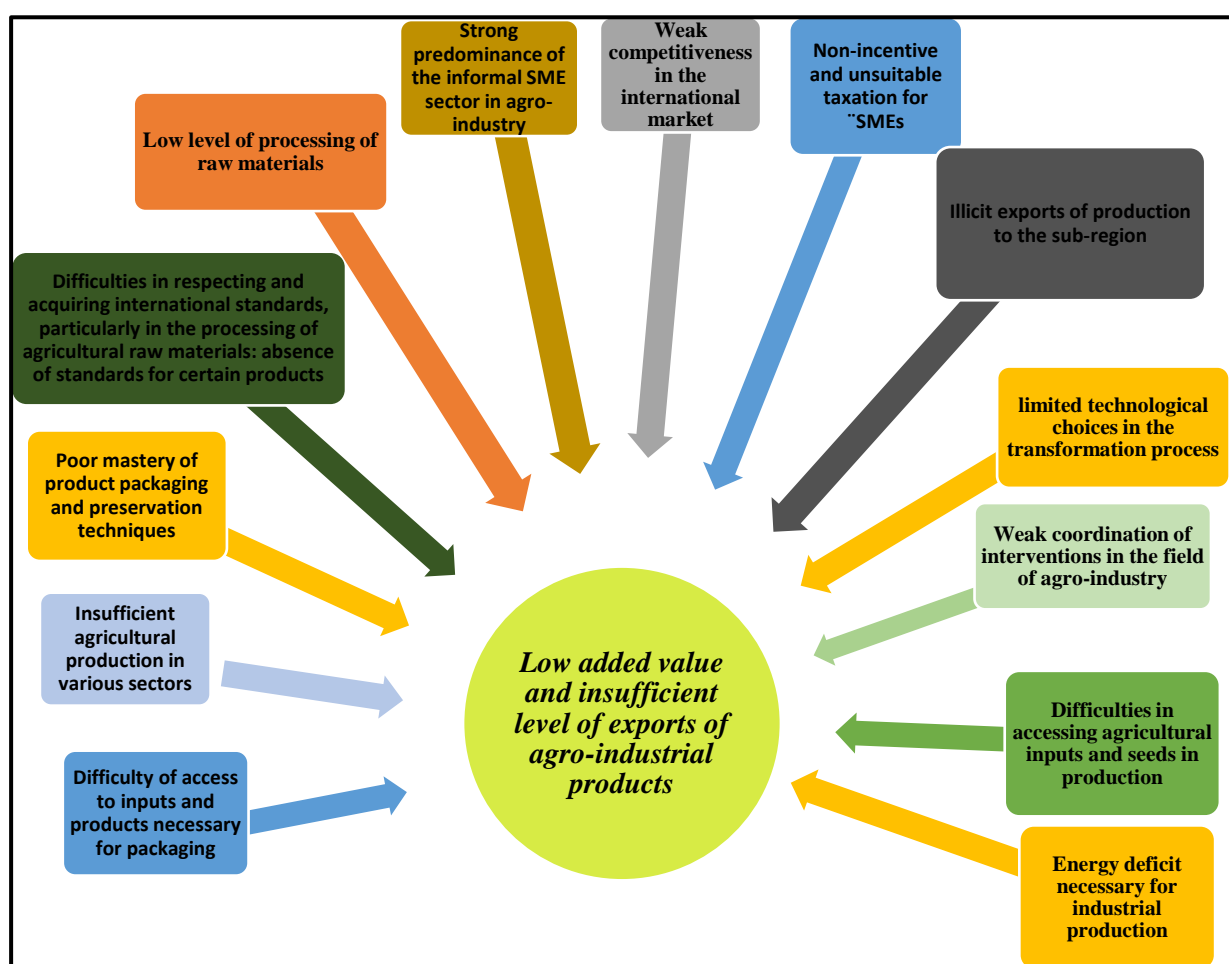
Source: DGD and DP/MINFI calculations

2.4.3. Analysis of the main problems of the agro-industry

Cameroon's agricultural potential provides a good basis for the development of agro-industry, which has traditionally been one of the most important links in the national manufacturing sector. One of the characteristics is its low upstream integration with regard to the supply of raw materials, its insufficient level of product processing (coffee, cocoa) and its poor conquest of external markets. In general, agro-industries operate below installed capacity, which suggests that this sub-component has a significant source of growth if appropriate actions were taken to resolve the problems identified. The fundamental or central problem to be solved for the development of agro-industry is therefore the low level of production and added value (7.85% of GDP in 2016) as well as the implications in terms of jobs and distributed income. Associated with this fundamental problem is a subsidiary problem, which is the low level of exports of products produced by agro-industry. The main constraints related to the development of agro-industry in Cameroon can be grouped into five groups and represented as follows:

- ❖ supply constraints, they are manifested by: (i) the low level of marketable surpluses for processing purposes and (ii) the scattering of production, which results in high collection and supply costs;
- ❖ technological constraints, they are manifested by: (i) the obsolescence of production techniques, (ii) the difficulties in respecting international standards, (iii) the underutilization of production capacities and (iv) the absence of a maintenance culture;
- ❖ logistical constraints, which translate into: the inadequacy of infrastructure at the country level does not favor easy access between production centres, processing centers and consumption centres;
- ❖ the lack of support structures that can accompany and promote agro-industry: in addition to the absence of research centers and laboratories specializing in standards and quality control, the link between applied research and industry is itself underdeveloped and encouraged;
- ❖ Difficult access to packaging and other intermediate products.

Figure 4: Central problem of agribusiness and its causes



Source: MINPMEESA

a. Vegetable production

➤ Cereal sector (maize, rice, millet/sorghum)

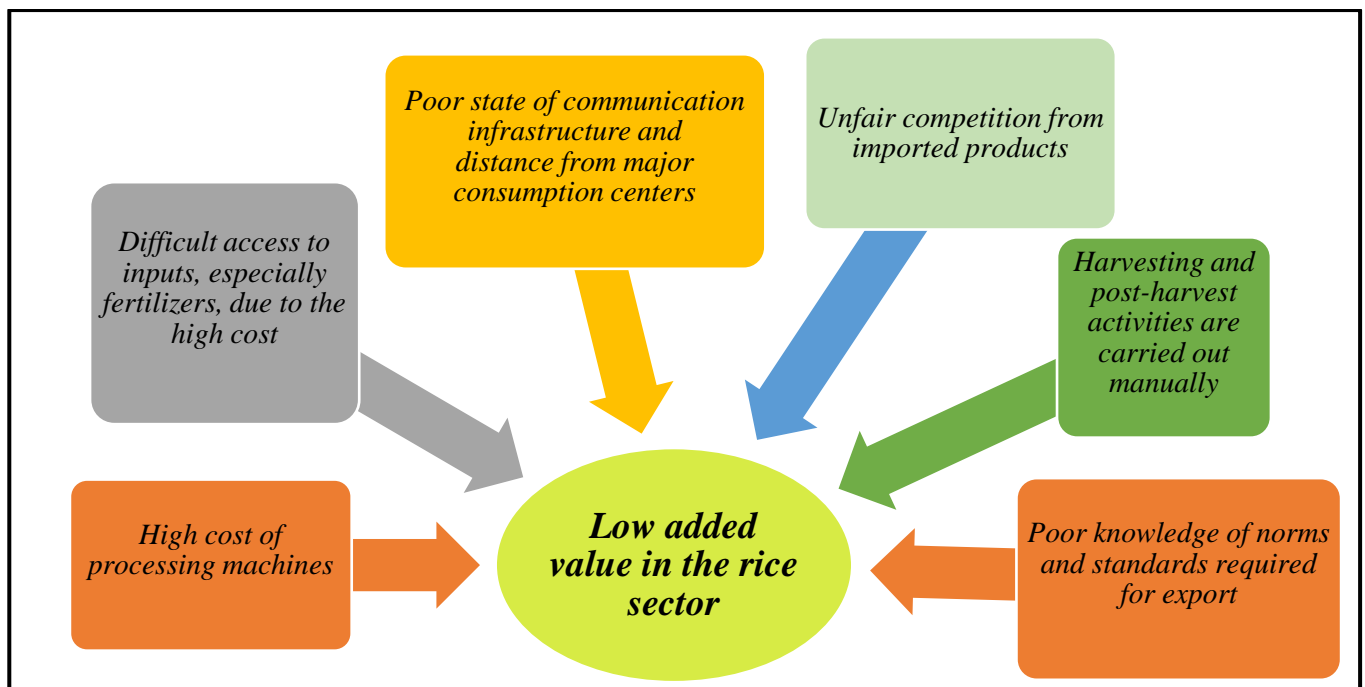
The constraints encountered in the cereal sector in Cameroon are of several orders and are observed at the level of certain segments of the sector, in particular production, processing and marketing. These include:

- Low level of organization of producers;
- Low mechanization of agriculture, which forces producers to cultivate only small areas;
- Land tenure insecurity;
- Low productivity of farms, induced in particular by a reduced use of high-yield seeds;
- Low availability of agricultural inputs (seeds, fertilizers, etc.);
- Strong presence of post-harvest losses, following poorly conducted drying operations or insect attacks;
- Low storage capacity and lack of knowledge of storage techniques;
- Difficulties in accessing micro-credit in rural areas, preventing investment in equipment and agricultural inputs for the benefit of producers;
- The isolation of production basins which accentuates the volume of post-harvest losses and has a strong influence on market prices;
- Competition from imported manufactured products which are usually of better quality;
- Poor mastery of product packaging and preservation techniques;
- The high cost of access to processing machinery;
- The high cost of setting up processing plants;
- Poor access to international markets due to poor mastery of the norms and standards required for the export market;



Rice sector

Figure 5: Central problem of the rice sector and its causes

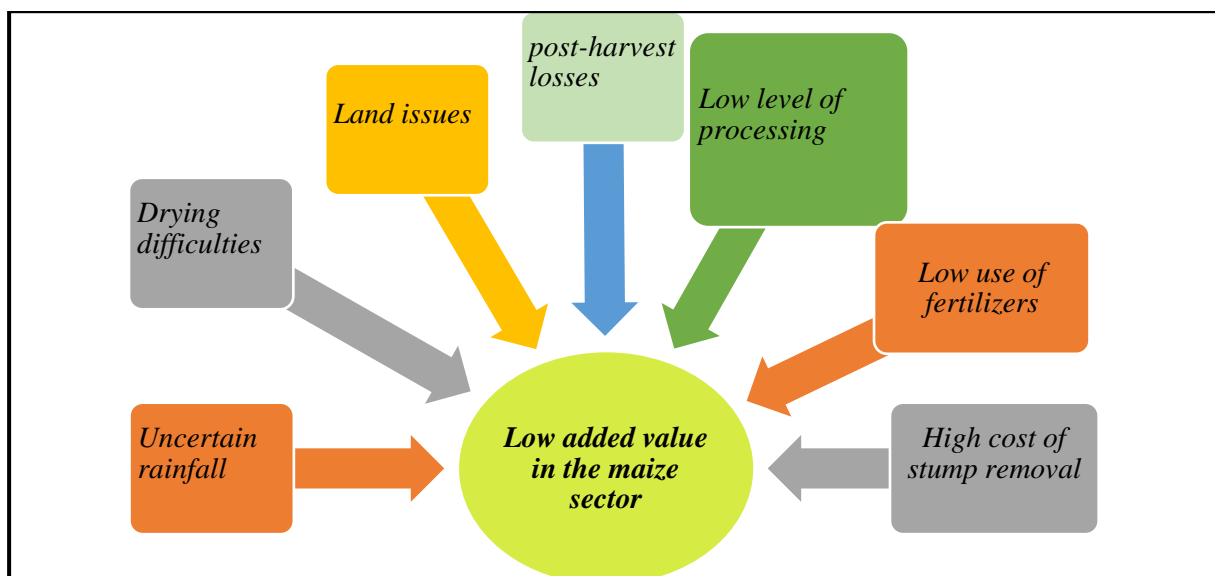


Source : MINPMEESA



Corn sector

Figure 6: Central problem of the maize sector and its causes

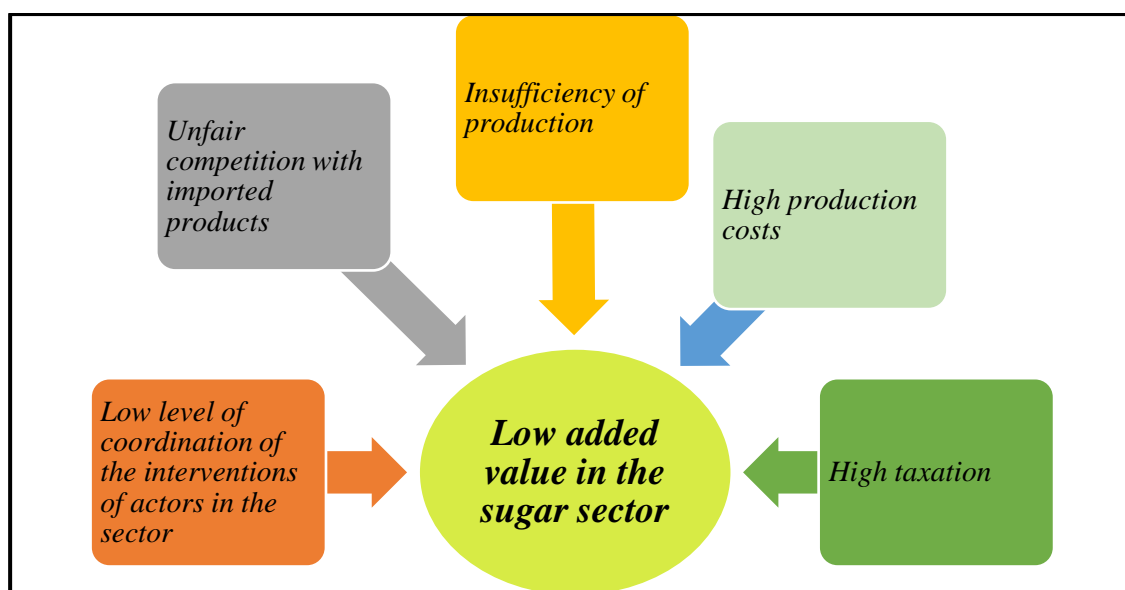


Source: MINPMEESA



Sugar sector

Figure 7: Central problem of the sugar sector and its causes



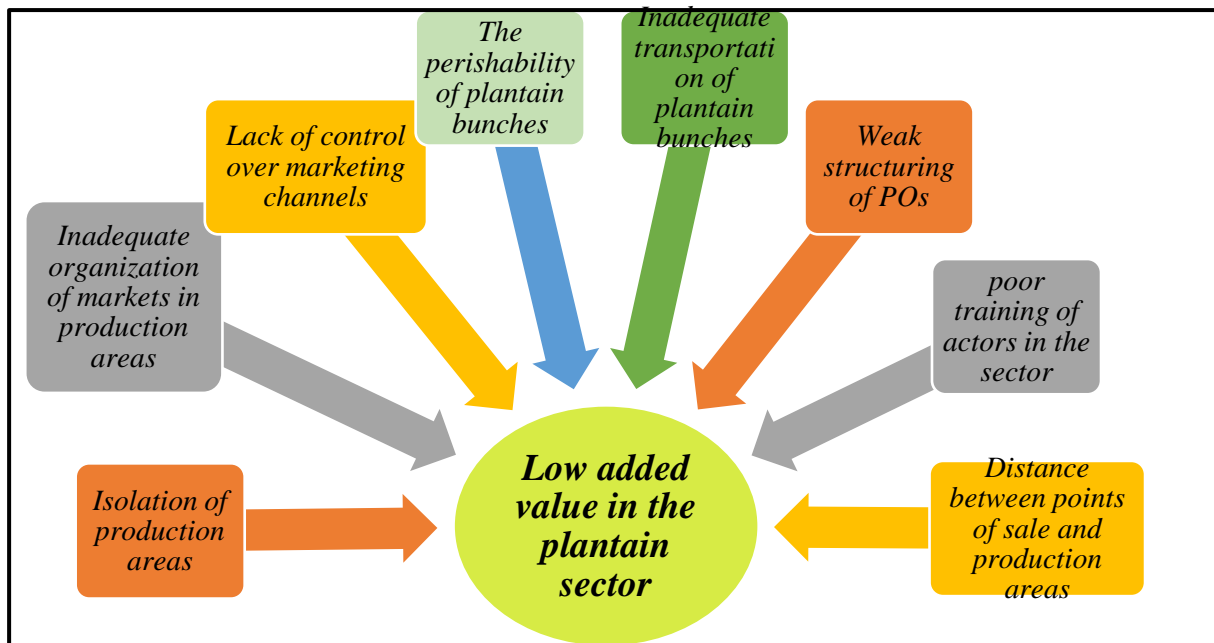
Source: MINPMEESA

Plantain sector

The main obstacles in the various chain of values of the sector are as follows:

- The dissemination of research results to producers and promoters is insufficient;
- The lack of adequate logistics for storing fresh fruit in collection centers and in large consumer markets;
- Poor mastery of technical production routes, particularly in micro-enterprises and individual producers;
- The relatively high level of post-production losses due to marketing and conservation difficulties;
- Poor mastery of product packaging and preservation techniques;
- The high cost of access to processing machinery;
- The high cost of setting up processing plants;

Figure 8: Central problem of the plantain sector and its causes



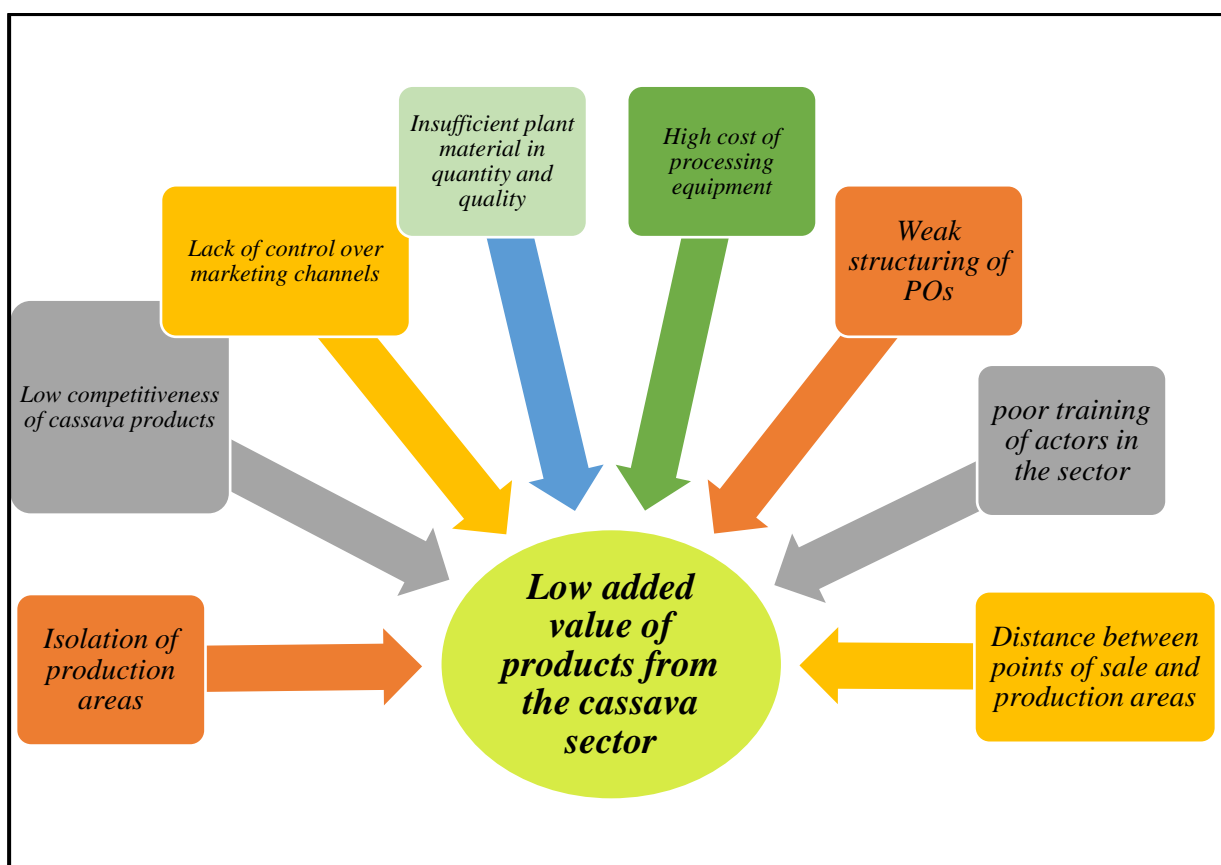
Source: MINPMEESA

Cassava sector

The main constraints in the chain of values of the cassava sector are as follows:

- The low use of fertilizers and the tendency to impoverish the soil;
- Insufficient plant material in quality and quantity;
- Lack of mastery and high cost of conservation methods;
- The high cost of processing, storage and transport infrastructure/equipment;
- Difficult access to credit;
- The irregularity of supplies;
- Poor mastery of management tools;
- The low competitiveness of products derived from Cameroonian cassava on the markets of northern countries;
- Unavailability of improved varieties for processing;
- Low availability of cassava products;
- Difficult access to markets;

Figure 9: Central problem of the cassava sector and its causes



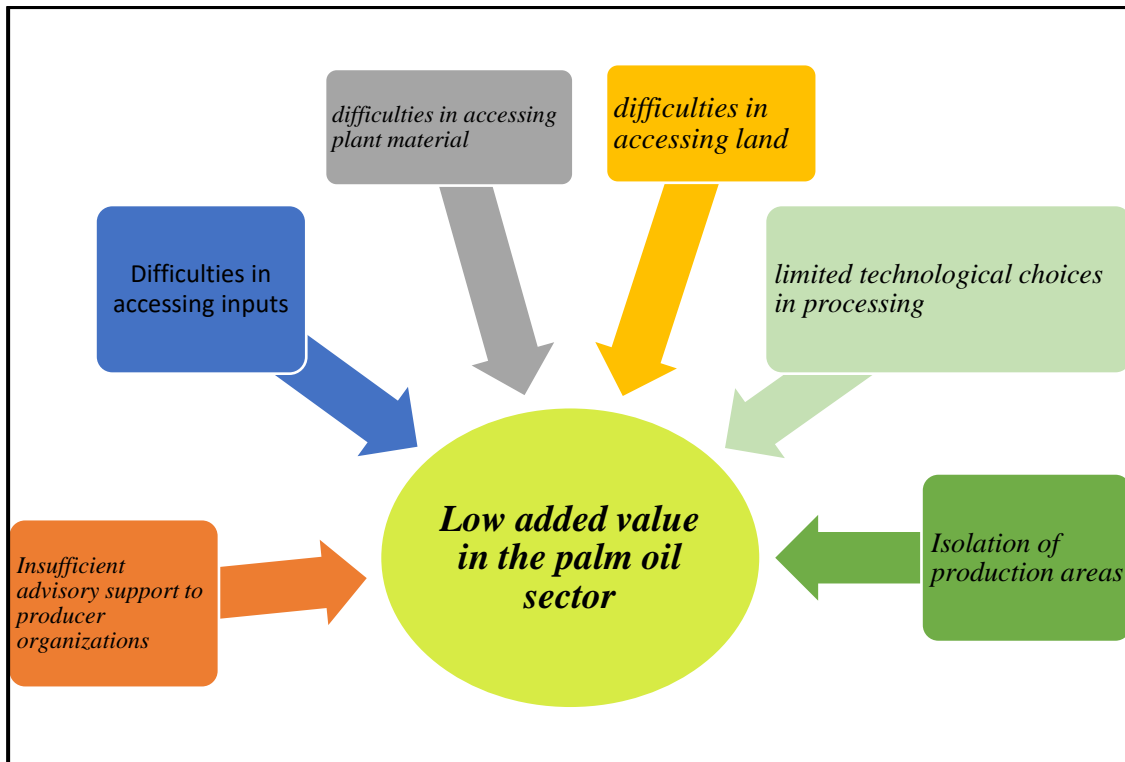
Source: MINPMEESA

Palm oil sector

The main constraints of the sector are as follows:

- Difficulties of access to quality plant material;
- Difficulties of access to fertilizers and seeds;
- Insufficient advisory support;
- Isolation of production areas;
- Low level of processing due to limited technological choices.

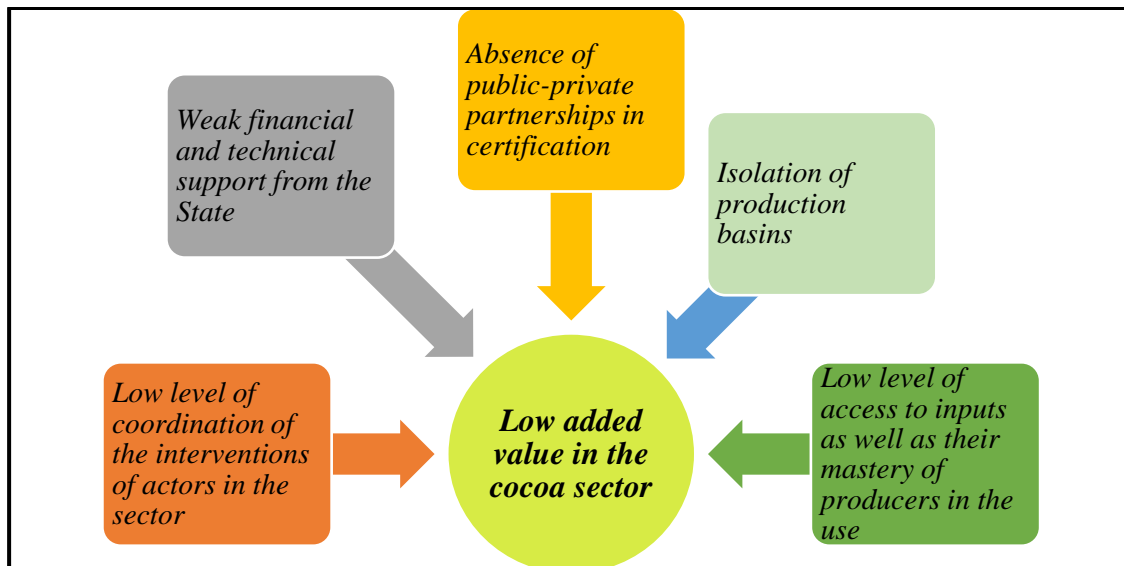
Figure 10: Central problem of the palm oil sector and its causes



Source: MINPMEESA

Cocoa sector

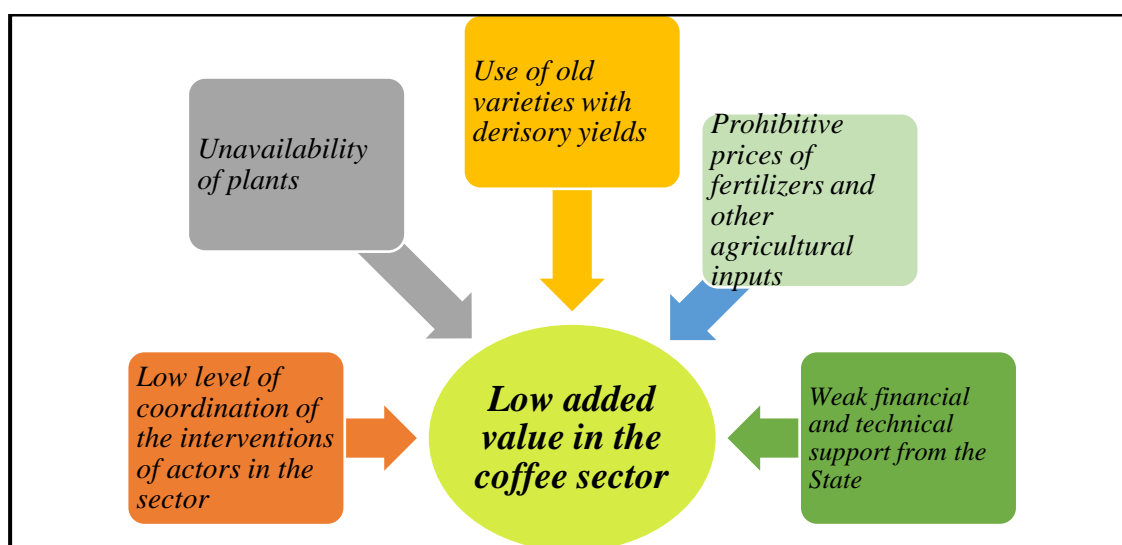
Figure 11: Central problem of the cocoa sector and its causes



Source: MINPMEESA

Coffee sector

Figure 12: Central problem of the coffee sector and its causes



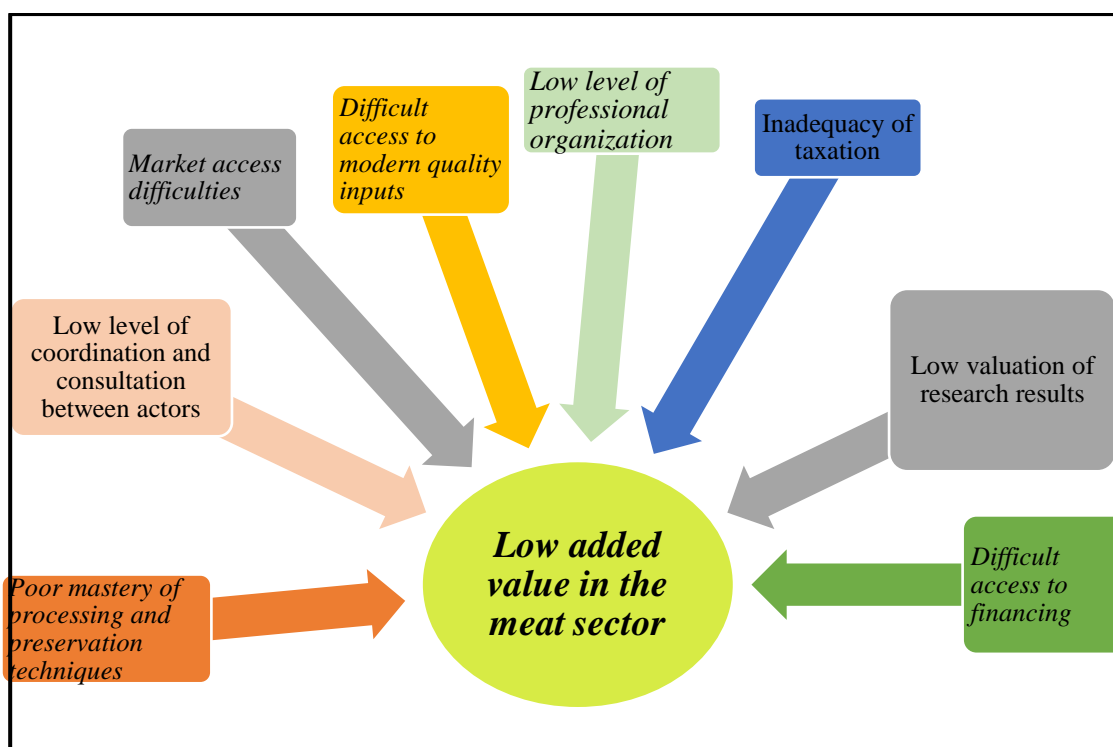
Source: MINPMEESA

b. Animal production

Meat sector

The major problem identified is the low added value of animal production products. This situation is explained by the following factors: Low genetic potential of local breeds; Low exploitation of the results of agricultural research; Low use of high yield techniques; Difficult access to land, especially for women and young people; Low qualification of labor in rural areas; Difficult access to modern quality inputs; High prevalence of animal diseases; Low access to credit; Low management capacity of producer organizations; Low technical skill of producers; Insufficient infrastructure and appropriate production equipment; Insufficient energy in production areas; Isolation of production areas; Poor mastery of processing and preservation techniques; Insufficient consultation and coordination; Inadequate taxation; Inadequate land legislation.

Picture 13: Central problem of the meat sector and its causes



Source: MINPMEESA

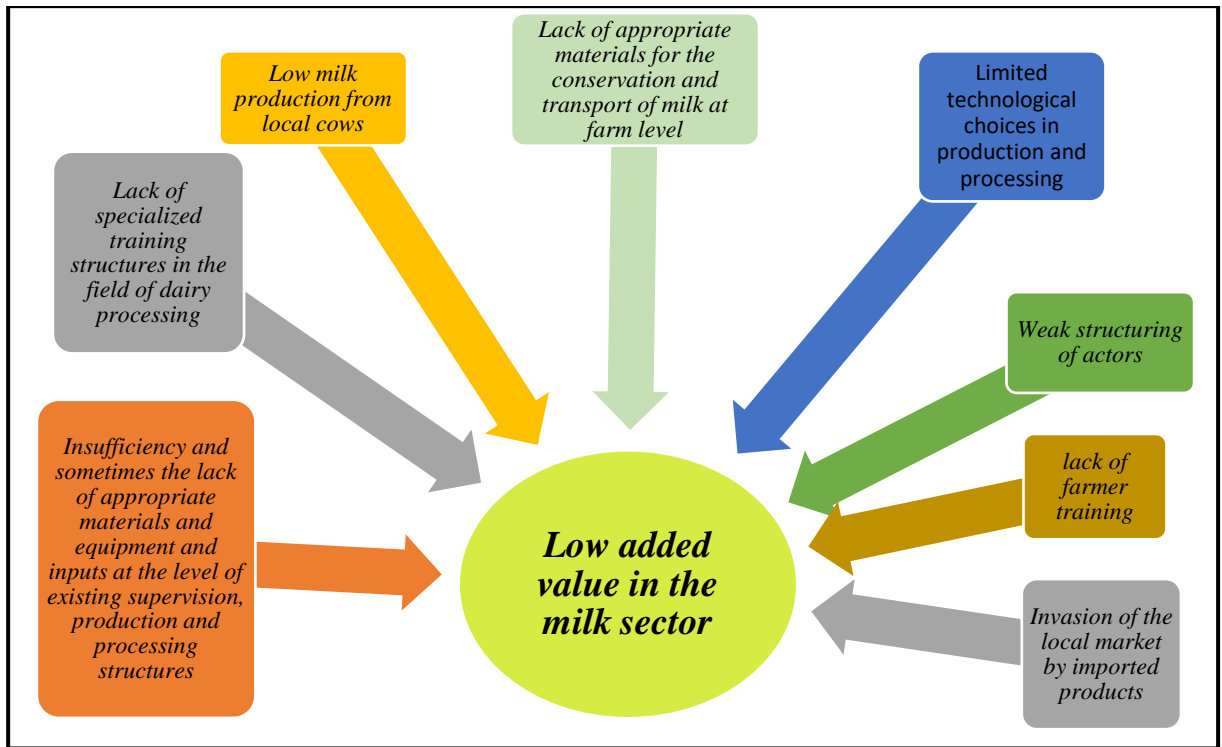
Milk sector

The main constraints in the milk sector in Cameroon are as follows:

- The lack of appropriate materials for the conservation and transport of milk at farm level, hence the use of motor oil cans or those previously used to transport fuel or other fluids;
- Unhygienic milking and handling conditions;
- Lack of appropriate technologies for processing;
- The invasion of the local market by imported products;
- The low level of organization of milk producers into a force that can wisely conduct negotiations with other partners in the sector;
- The remoteness of dairy farmers from dairies;
- The lack of suitable vehicles for transporting milk, hence the many difficulties experienced in collecting this milk in remote areas;
- The problems of availability of raw milk in quantity and quality especially during the dry season. This is one of the reasons why all these structures are obliged to resort to powdered milk to operate the dairies;
- Insufficient material resources and equipment available in the field;
- The lack of coordination of actions to promote dairy production in the field;

- Insufficiency and poor management of qualified human resources in the dairy industry;
- The low milk production of local cows, hence the increasingly expressed desire to have access to more efficient animals;

Figure 14: Central problem of the milk sector and its causes



Source: MINPMEESA

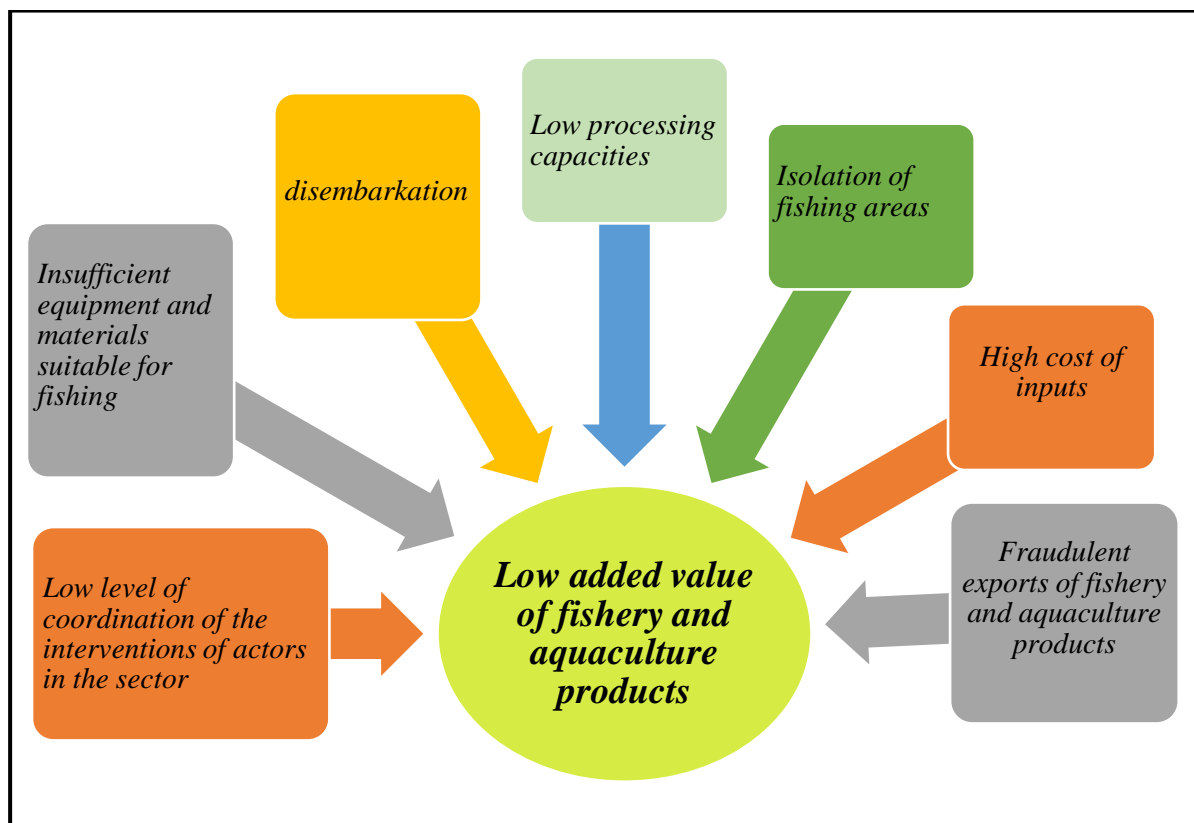
c. Fisheries production (fisheries and aquaculture)

The main problem in fish production is the low added value resulting from the processing of products in this sector. This situation may be due to several factors:

- Low genetic potential of fry;
- Low level of structuring and professionalization of fishing actors;
- Totally inadequate fishing ports and landing stages;
- High cost of fishing and aquaculture inputs;
- Weak technical and managerial capacities of the actors;
- Non-compliance with regulations on fishing techniques and gear;
- Weak capacity to manage fisheries resources;
- Fraudulent export of catches;
- Weakness of the technical supervision and financial support system for actors;

- Insufficient consultation and coordination;
- Enclosure of fishing camps;
- Inadequate transport and marketing infrastructure, equipment and logistics;
- Low processing and storage capacity;

Figure 15: Central problem of the fish sector and its causes



Source: MINPMEESA

2.4.4. Identification of strengths, weaknesses, opportunities and threats for agribusiness

2.4.4.1. Strengths and Weaknesses of Agribusiness

1. Strengths

They can be considered as assets to be maximized or optimized for the development of agro-industry in Cameroon.

Vegetable production

The advantages of plant production are:

- **The availability of cultivable land:** Cameroon has millions of hectares of cultivable land and therefore favorable to the increase of agricultural production in several sectors. These cultivable areas represent more than 50% of the national territorial area to which must be associated 19 million ha of pastures. Moreover, Cameroon enjoys agro-ecological conditions favorable to the cultivation of several plant species.
- **Political will:** The development of crop production chain of values is a means for the government not only to ensure the food security of populations, but also to fight against poverty by improving the incomes of rural populations;
- **The fairly rich institutional framework:** MINADER, MINPMEESA, MINMITD, MINRESI, IRAD, etc. ;
- **The existence of numerous government projects aimed at increasing crop production and generating surpluses for processing:** The Agricultural Chain of values Development Project (PDCVA); the Agricultural Sector Development Support Project (PADFA); the Agricultural Markets Investment and Development Project (PIDMA); the Support Project for the Production of Quality Plant Material (PAPMAV-Q); the Roots and Tubers Development Support Project (PADRT);
- **The existence of a Cameroonian bank for SMEs:** it was created to fill the "financial gap" between the traditional banking sector, which is reluctant to finance SMEs because of the importance of the risks, and SMEs which are excluded from the financing market due to their financial and managerial weaknesses;
- **The existence of numerous enterprises (SMEs) in the agro-industrial sector:** According to the report on the census of enterprises carried out by the INS, 2472 enterprises have been identified in the food sector;
- **The existence of a company upgrading mechanism:**
- **Availability of labor in quantitative terms:** An active population consisting mainly of agricultural labor;
- **Existence of many agro-industrial structures in several sectors:** We can mention in particular SOSUCAM in the sugar cane sector, SOCAPALM and CDC in the oil palm sector, MAISCAM in the corn sector, PHP in the plantain sector, etc.
- **Existence of infrastructure and equipment built by the public authorities during the implementation of the DSCE:** These include developed rural roads, storage warehouses and community granaries built in the production basins;
- **The existence of many professional groups in the field of plant production:** We can cite in particular the Grouping of Milling Industries of Cameroon, the

Interprofessional Coffee and Cocoa Council (CICC), the Grouping of Cocoa/Coffee Exporters (GEX), the Union of Professional Unions of Cameroon (USPAC), the Employers' Union of Bakers of Cameroon, etc.

Fish production

- **Political will:** The development of fisheries production chain of values is a means for the government to fight against poverty by improving the incomes of rural populations. The existence of sub-sector planning tools validated through the industries and services development strategy and the rural sector strategy, show that Cameroon, with the support of its Development Partners, attaches significant importance to the development of fishing and aquaculture;
- **Significant hydraulic potential:** The very significant water resources offer enormous possibilities in terms of water bodies for fishing and aquaculture. The very dense hydrographic network which covers an area of 4,000,000 ha of fresh water with bodies of water, dams (Maga, Lagdo , Mbakaou , Mapé , Bamendjin and soon Lom Pangar) and rivers (Benoue, Nyong, Sanaga, Logone, Mbam , Ntem , etc.) indeed constitutes a particularly interesting productive base for inland artisanal fishing and aquaculture.

In addition, the large maritime coast, more than 360 km long, offers opportunities for the development of industrial and artisanal maritime fishing.

- **Existence of an institutional framework:** MINEPIA, MINPMEESA, MINMIDT, IRAD, etc.
- **The construction of new hydroelectric dams and reservoirs which constitute the main areas of activity for continental artisanal fishing**
- **The implementation of several government projects aimed at increasing fish production and generating surpluses for processing:** the Support Project for the Renovation and Development of Vocational Training in the Livestock and Agriculture Sectors and Fisheries (PCP-AFOP); the Aquaculture Entrepreneurship Promotion Project (PPEA); the Livestock and Fish Farming Chain of values Development Project (PD-CVEP); the Competitiveness Improvement Program for Agro pastoral Farms (PCP-ACEFA); etc
- **Existence of aquaculture stations, national fisheries training centers and the Maritime Fisheries Development Fund (CPDM);**
- **The existence of a business upgrading mechanism**

- **Availability of labor in quantitative terms:** An active population consisting mainly of agricultural labor.

Animal production

- **Political will through planning tools:** Livestock development is a means for the government to fight against poverty by improving the incomes of rural populations. The existence of sub-sector planning tools validated through the industries and services development strategy and the rural sector strategy, show that Cameroon, with the support of its Development Partners, attaches significant importance to the development of animal husbandry and industry.
- **A well-diversified animal resource potential:** in Cameroon, domestic animal breeding (mostly) consists of short-cycle species (poultry, pigs, sheep and goats) and long-cycle species.

Animal exploitation is practiced throughout the country, which benefits from great agro-ecological diversity. The breeding of wild animals and unconventional species is developing rapidly and offers interesting prospects in terms of captive breeding, particularly with species such as: cane rats, guinea pigs, rabbits, frogs, quails, snails, crocodiles, guinea fowl, ostriches and many more.

- **Availability of equipment put in place by the government during the implementation of the DSCE:** These include one (01) slaughterhouse in Ngaoundéré (capacity of 250 heads per day); four (04) cold stores with a cumulative capacity of 12,000 m³ in Ngaoundéré, Yaoundé, Ebolowa and Kribi; nine (09) refrigerated vehicles for the transport of carcasses.
- **Existence of an institutional framework: MINEPIA, MINPMEESA, MINMIDT, IRAD, etc.**
- Existence of the Agency for the Promotion of Small and Medium Enterprises (APME) with the particular missions of (i) facilitating the creation of SMEs while providing them with assistance in their ideas; (ii) promote technological innovation for SMEs; (iii) facilitate SMEs' access to financing and partnership; (iv) carry out market studies and strategic choices for the development of SMEs.
- **The implementation of several government projects aimed at increasing animal production and generating surpluses for processing :** the Program to Improve the Competitiveness of Agro pastoral Farms (PCP-ACEFA); the Livestock Development Project (PRODEL); the Green Innovation Centers Project for the

Agrifood Sector (PROCISA); the Rural Development Support Project (PADER); the National Program for the Prevention and Control of Emerging and Re-emerging Zoonosis (ZOONOSIS); Livestock and Fisheries – Development Project (LIFIDEP); the Livestock Marketing and Livestock Infrastructure Development Project (PD-COBIE); etc

- **Existence of the Livestock Development Fund for the North, the Livestock Development Fund for the North-West, livestock impulse and modernization stations;**

2. Weaknesses

- **Strong predominance of the informal sector:** a large majority of entrepreneurs work in the informal sector according to the general census of companies carried out by the INS carried out in 2009 and in 2016. Among the food businesses surveyed by the INS, a small proportion, i.e. 1.7%, is affiliated with an accounting firm and 20% complete a tax declaration. ;
- **Weak coordination of interventions in the agro-industry sector:** This results in the absence of a formal consultation framework for initiatives in the field of agro-industry;
- **Non-incentive and unsuitable taxation for SMEs**
- **Land constraints limiting the extension of industrial plantations:** This situation results in land issues between agro-industries and local populations;
- **Lack of appropriate systems for financing agricultural and agro-industrial activities;**
- **Insufficient skills of entrepreneurs to manage industrial units rationally and competitively;**
- **Poor mastery of product packaging and conservation techniques:** This situation is explained by the knowledge of local populations
- Difficulties in respecting international standards, particularly in the processing of agricultural raw materials;
- High cost of setting up processing plants ;
- **Low level of transformation of raw materials:** It results from limited technological choices and which only allow engaging in simple transformation processes with low added value.

- Lack of mastery of new technologies in the transformation process;
- Difficulty of access to inputs and products needed for packaging;
- **Insufficient agricultural production in various sectors** : This results from the low production capacity in terms of volume ;
- **High cost of collecting agricultural raw materials**: This situation results from the lack of infrastructure;
- **Isolation of production basins**: This results in particular from the inadequacy of road or rail infrastructure;
- **Difficulties of access to agricultural inputs and seeds**: This situation is due to the prohibitive prices of fertilizers and other agricultural inputs in agricultural production;
- **Use of old varieties with derisory yields**;
- **Poor access to international markets due to poor mastery of the norms and standards required for the export market**;
- **Low competitiveness on the international market**: This can be explained by the high collection costs of agricultural raw materials.

2. Opportunities and threats.

i. Opportunities

- **Implementation of decentralization**: The decentralization process is an asset for the development of agro-industry insofar as giving back more autonomy and resources to the CTDs allows them to put in place more operational policies, adequate and targeted with a view to optimizing the agro-ecological potential of each CTD. Indeed, the development of agro-industry has a better chance of succeeding if the local authorities (CTD) for which the policies are drawn up take ownership of it and participate effectively in its implementation. In addition, bringing the administration closer to the citizen generates greater trust by establishing a relationship of accountability and sanction between the citizens and the State through local leaders, entrepreneurs and professional organizations;
- **A constant increase in domestic demand**: This results from the increase in household consumption. The latter in turn stems from the consumption of the population;
- **The opening of sub-regional and global markets**: The development of regional and global chain of values offers new opportunities in Cameroon to accelerate

industrialization, structural transformation and inclusive and sustainable economic growth. By way of illustration, the buoyant CEMAC market within which Cameroon has a certain leadership at the economic level constitutes an opportunity to be exploited for the development of agro-industry in Cameroon.

It is a market of 30 million inhabitants and constantly growing. In addition, the entry into force on July 7, 2019 of the African Continental Free Trade Area also constitutes a huge opportunity for the development of Cameroonian agro-industry.

- **The interest of technical and financial partners for agro-industry:** Foreign Direct Investment (FDI) is an important source of international financing for developing countries. This type of financing constitutes an opportunity to be seized by Cameroon in its international partnership with a view to accelerating the development of its agro-industry.
- **Availability of a diversified offer of technologies likely to be mobilized at the global level:** Cameroon has a low level of industrialization and technological development and therefore far from the technological frontier for each sector of activity or global chain of value. In a context of globalization and successive technological revolutions, we observe in each sector of activity, a diversified offer of technologies likely to be acquired and used in agro-industry.

3. Threat

- **The presence of many imported products in the local market:** Imports of agro-industrial products constitute a risk for the national economy insofar as these imports represent a loss of earnings for the State's budgetary revenues. Moreover, these imports contribute to the aggravation of the balance of payment deficit;
- **The security crisis in the North-West and South-West regions:** Cameroon has been facing a security crisis in the North-West and South-West regions since 2016. This situation obliges the government to mobilize enormous resources for the safety of the populations living in the regions in question. This situation constitutes a risk for the development of agro-industry in Cameroon insofar as it reduces the budgetary resources of the government and consequently its capacity to finance the development of a crucial sector such as agro-industry.
- **The increase in demand resulting from the increase in population:** The Cameroonian population is young and constantly increasing according to the Central Bureau of Studies and Research on Population (BUCREP).

This increase in population is reflected in turn by an increase in household consumption, particularly in agro-industrial products. The government must therefore strengthen its supply in agribusiness to be able to take advantage of the resulting increase in household consumption demand.

2.4. 5. Issues and challenges

Areas	Challenges	Challenges
Vegetable production	<ul style="list-style-type: none"> • Increase in agricultural production; • Improvement of the level of processing of raw materials for plant production; • Improvement in the volume of exports of processed products from agro-industry • Improving added value in the crop production sectors; • Improve the Competitiveness of SMEs present in the field of plant production. 	<ul style="list-style-type: none"> • Open up crop production basins; • Facilitate access to inputs and improved seeds for crop production sectors; • Strengthen the capacities of agro-industries already present in the field of plant production; • Facilitate access to modern equipment for SMEs present in the production process; • Facilitate access to advanced technologies for SMEs present in the processing of plant raw materials; • Put in place a tax system adapted to SMEs present in plant production and processing; • Organize theoretical and practical training seminars in food processing technology for small businesses; • Develop specialized vocational training cycles in agro-industrial processing techniques and quality control; • Support SMEs for the development of their technical, technological and managerial skills;

		<ul style="list-style-type: none"> • Promote, within SMEs, a “quality” dynamic, the culture of innovation and respect for international norms and standards; • Organize training workshops aimed at building the capacity of SMEs in the process of standardization and certification of products and quality control in production and processing at the plant production level;
Animal production	<ul style="list-style-type: none"> • Insurance for the food security and self-sufficiency of the Cameroonian populations; • Improvement of livestock health coverage and the fight against zoonosis; • Improvement of the level of processing of raw materials for animal production; • Improve the competitiveness of products from the sub-sector on export markets; • Improving added value in animal production chains; 	<ul style="list-style-type: none"> • Strengthening capacities for diagnosing diseases and controlling the quality of foodstuffs of animal origin; • Capacity building of professional organizations in the animal sectors; • Development of short-cycle animal sectors; • Development of large livestock; • Modernization of breeding and processing infrastructure; • Development of medium-sized units of production and processing of animal products guaranteeing the creation of added value and decent jobs; • Strengthen the establishment of infrastructure to open up production areas; • Facilitate access to improved animal material and other more productive inputs;

		<ul style="list-style-type: none"> • Facilitate access to modern production equipment and processing infrastructure; • Support SMEs for the development of their technical, technological and managerial skills; • Promote, within SMEs, a “quality” dynamic, the culture of innovation and respect for international norms and standards;
Fish production	<ul style="list-style-type: none"> • Insurance for the food security and self-sufficiency of the Cameroonian populations; • Improvement of the level of processing of raw materials for fish production; • Improving the competitiveness of fisheries production products on export markets; • Improvement of added value in the fisheries production sectors; 	<ul style="list-style-type: none"> • Capacity building for disease diagnosis and quality control of foodstuffs of fishery origin; • Capacity building of professional organizations in the fisheries sectors; • Develop medium-sized units for the production and processing of fishery products, guaranteeing the creation of added value and decent jobs; • Develop fishing; • Develop aquaculture; • Facilitate access to modern production equipment and processing infrastructure; • Support SMEs for the development of their technical, technological and managerial skills;

		<ul style="list-style-type: none"> Promote, within SMEs, a “quality” dynamic, the culture of innovation and respect for international norms and standards;
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PART II: FORMULATION OF OPERATIONAL CHOICES AND PROFILING OF THE AGRO- INDUSTRY SECTOR

CHAPTER 3: AGRO-INDUSTRY OPERATIONAL CHOICES

3.1. MAIN OBJECTIVE

3.1.1. Some important aspects to consider

The international environment characterizing agro-industries in developing countries and economies in transition has undergone many changes.

1. With the increase in per capita income, technological progress, and the liberalization of trade and urbanization, agro-industries and agro-food SMEs play an increasingly important economic and social role, in particular through their upstream integration with the agricultural sector. As a result, their contribution to poverty reduction is increasingly established;
2. Large manufacturers and distributors rely on specialized supply chains and wholesalers and set new standards for food quality and safety;
3. Food products are increasingly oriented towards distribution chains such as supermarkets and less and less towards local markets;
4. Supplies are also increasingly contracted, which implies that suppliers must be able to deliver large volumes of homogeneous products, which upstream requires control of all the technical production parameters;
5. With the increasing rate of urbanization and the greater participation of women in the labor market, there is a growing demand for ready-to-eat foods;
6. The development of agro-industries has been accompanied by a proliferation of industrial standards and quality criteria created by private companies and industrial groups. Another practice accompanying the growth of fair trade is the certification of products by international government bodies. Even if these standards and quality criteria protect the consumer and improve food quality and safety, they can have an eviction effect for agro-industries in countries where traceability, certification and compliance systems are not too developed or constitute too heavy a burden for companies;
7. The new modes of consumption include more products of animal origin: fish, meat, dairy products. Organic food and products from sustainable agriculture are also increasingly in demand;

8. Research in the agro-food sector has become an important strategic variable in the conquest of new markets and we are witnessing a proliferation of public-private partnerships in research and the dissemination of research in order to reduce the cost of research access to small businesses.

3.1.2. Formulation of the general objective

In the Strategy for the Development of Industries and Services for the period 2020-2030, Cameroon sets itself the ambition of “BECOME THE NOURISHER OF AFRICA (ECCAS) AND NIGERIA. It is therefore a matter for the government to supply the markets of the interior and of ECCAS + Nigeria with 2nd and 3rd transformation food products through the further development of local raw materials and the promotion of exports.

The vision of the field can therefore be formulated as follows: **“Cameroonian agro-industry: A competitive field contributing to the creation of wealth, to inclusive growth in a sustainable environment. »**

This overall objective incorporates several aspects, in particular:

- **Competitiveness:** The field of agro-industry faces competition from many imported products. Cameroon must therefore offer competitive products both in terms of product quality and price. This competitiveness is an essential condition for conquering market shares at the national, sub-regional and global level;
- **Economic growth:** Agro-industry must contribute to the growth of the Cameroonian economy. It is thanks to this growth that the government will be able to free up financial leeway in order to implement various development projects;
- **Sustainable Environment:** The development of agro-industry must be done in full respect of the objectives of sustainable development.

In this regard, the strategic orientations should mainly aim to remove upstream the constraints that block production, that is to say: (i) Mobilize and attract young people to agriculture; (ii) Resolve land issues that may limit access to land; (iii) Better link agronomic research and agricultural production; (iv) Train farmers and build their capacity to master modern agricultural techniques; Develop rural sector development support infrastructure (trails, roads, storage infrastructure, slaughterhouses, cold chains, etc.).

3.1.3. Scenarios to consider

Concerning the scenarios, two are to be considered, their implementation is declined in a common way by two links: The strengthening of the domestic offer and the promotion of agri-food exports. However, the difference will come at the level of export promotion.

❖ **Strengthening of the domestic offer on the local market**

At this stage, it is a question of strengthening the domestic supply with the aim of covering the domestic market with regard to goods which weigh down the trade balance at the level of imports and for which the country has a considerable domestic supply. This first requires good targeting of agro-industrial products whose domestic supply is able to sufficiently satisfy domestic demand (significant ratio of imports/total demand) and whose level of processing does not require a very high cost, as well as more labor than capital. In other words, it is a question of targeting consumer goods for which the country has a comparative advantage. However, these agro-industrial products should have a direct connection with the primary sector, particularly the agricultural sector. Indeed, the development of agro-industry is closely linked to the growth of agricultural production without which it will not be possible to release the surpluses available for processing. Eventually, Cameroon should also specialize its agro-industry according to agro-ecological zones allowing it to take full advantage of the specificities of its territory.

The coverage of the internal market by local agro-industrial products requires the implementation of several measures. These must affect all segments of the chain of value, namely: production, processing and marketing. The measures to be implemented by the government for the development of agro-industry must be technological, fiscal, institutional, financial, etc.

The objective is obviously to make local SMEs present in the Agro-industry sector competitive vis-à-vis imported products. Furthermore, it will be a question of clearly defining the technical framework (choice of instruments) for the application of these incentive measures so that this does not cause a structural deficit for the State (creation of special economic zones, production subsidies, land facilities, tax incentives, financing guarantees, import quota, infrastructure supply, etc.).

❖ **Export Promotion**



With a view to strengthening domestic supply, local industries are still confronted by the low acquisition of inputs and technology which are mostly imported at relatively high costs, which however the availability of foreign currencies in the balance of payment does not allow because of the external commitments of the State. Hence the need to resort to a policy of promoting exports that are no longer primary as observed (raw materials) but manufacturing in the agro-industry sector in order not only to finance the imports necessary for local agro-industries.

Thus, taking into account the importance of its agro-ecological potential, it is a question of emphasizing the process of diversification which is still stalling in Cameroon. In fact, Cameroonian exports relate mainly to primary products (agricultural and mining), with low added value, dependent on the fluctuation of world prices of raw materials.

The promotion of exports constitutes an additional link to the strengthening of the domestic offer, the aim being obviously to win market share internationally. To this end, products from the Cameroonian agro-industry must be competitive in terms of quality and price.

As recommended by the National Export Strategy, the government could take inspiration from the following measures: (i) Financial support for export operations; (ii) Quality management and packaging, upgrading, laboratories, certifications; (iii) Export Skills Development and Upgrading; (iv) Logistics and Trade Facilitation; rationalize and increase the efficiency of the export support mechanism; (v) Strengthening of actors and promotion of collective actions (economic zone, clusters, industrial poles, etc.) aimed at strengthening Cameroon's position in GVCs.

Regarding the diversification strategy of export diversifications in agro-industry, we opt for 2 approaches:

-  Parsimonious approach
-  Approach to strategic bets

For these two scenarios, it will also be a question of clearly defining the technical framework (choice of instruments) for the application of these incentive measures so that this does not cause a structural deficit for the State (creation of special economic zones, subsidies production, land facilities, tax incentives, financing guarantees, import quota, infrastructure supply, etc.)

Scenario 1: Parsimonious approach

The first scenario would consist in promoting the domestic supply of goods for which the country already has a comparative advantage (revealed or not) but which make it possible to move towards other ranges of products, in particular those of moderate complexity. These products thus have an average level of sophistication with a lower production cost and the advantage of requiring more local labor, these products present average opportunity gains in international trade in view of the considerable number of countries specialized in these products, they can allow a consistent accumulation of currencies if the productivity is important.

The advantage of this approach is to take into account the current know-how of the local workforce, in other words the profile of the existing human capital. It is taking this into account that we can better project ourselves on the products where we must specialize in the short and medium term. The objective of this approach is therefore to steer SMEs more and more towards the creation of a range of products on the basis of the largely existing basket.

Scenario 2: Strategic betting approach

The second scenario would consist of promoting the domestic supply of goods for which the country does not yet have a revealed but promising comparative advantage in terms of positioning on the international trade scene. These products thus have a fairly high level of sophistication (more complex) inducing a significant production cost, these products thus present opportunity gains in international trade and can allow a consistent accumulation of currencies even if the productivity is not important.

However, the risk is higher compared to the first scenario, we are positioning ourselves in this scenario in the long term. Consequently, the current know-how is insufficient to develop these products without the implementation of a technological catch-up plan.

As a reminder, the coverage of the external market by local agro-industrial products remains low but also not very complex or sophisticated. Indeed, in the current basket of export products, a large part comes from natural resources and reaches at most secondary processing, moreover the country does not present itself as a leader in these products. However, there are opportunities to position oneself on more complex strategic segments because they allow a faster increase in per capita income in view of the significant value of the exchange of these goods in international trade.

Thus, it would be necessary to circumvent the failure of the markets and the inability of the private sector, in particular SMEs, to engage in the discovery of new, more complex products. The rule would be that incentives are designed to reward risk taking by SMEs in new complex products. The objective is obviously to make local SMEs present in the agro-industrial sector competitive on these products in the making.

Choice of Scenario

The two scenarios presented above each address important aspects of achieving the objectives of structural transformation of the country's economy through the import/substitution mix and the promotion of exports.

The first scenario consists of intensifying the local production of products for which the country has a comparative advantage to essentially satisfy local consumption; and the second scenario addresses aspects related to trade, and directs the production of goods demanded on the sub-regional, international market.

Under each of the hypotheses (development choices), the actions to be taken will contribute substantially to the achievement of the strategic objectives set for 2030 with regard to the development of the agro-industrial sector. These two hypotheses taken separately do not make it possible to address the issue of the import/substitution mix in its entirety.

To this end, the choice would be to combine the two scenarios to satisfy not only domestic demand, but also to take advantage of the implementation of partnership agreements to position Cameroonian products on the sub-regional and international market.

3.2. OPERATIONAL AREAS

For the period 2020-2030, Cameroon's ambition is to increase the quantity and quality of the production of agricultural products in order to ensure its food self-sufficiency, to supply the growing demand of national agro-industries for agricultural raw materials and to conquer international markets, particularly those of the ECCAS and ECOWAS sub-regions. This government objective is consistent with the two scenarios formulated.

Achievement of this objective hinges on the following axes: (i) Development and consolidation of physical and cognitive infrastructure; (ii) Modernization and structuring of the

production apparatus; (iii) Trade capacity building and partnership development; (iv) Development and strengthening of private sector support institutions.

3.2.1. Modernization and structuring of the production apparatus in the field of agro-industry

The field of agro-industry is marked by technological constraints which result in the obsolescence of production techniques. This has a negative impact on their competitiveness. The objectives are therefore the following:

- +Densify the industrial fabric and support the modernization of the production apparatus not only to face competition on the domestic market in the context of increasingly open borders, but also to fit properly into global chain of values;
- +Improve agricultural productivity through the promotion of semi-intensive and industrial agriculture capable of ensuring food self-sufficiency, supplying the processing industry in the agro-industrial sector;
- + Set up an information system on agro-industry;
- + Promote stars up;
- + Build the laboratories;
- + Promote the grouping together in inter-professional organizations in the different agricultural sectors, to strengthen the capacities of the actors concerned, better structure public-private dialogue and thus make State support easier;
- + Support and support the development of SMEs/SMIs, in particular through the development of subcontracting, the creation of regional development poles and the encouragement of informal sector companies to migrate into the modern economy;
- + Develop and promote a limited number of priority growth sectors in agro-industry where the competitive advantage is proven, with public support and a concentration of resources aimed at bringing out "champion" companies in these sectors;
- + Increase agricultural productivity and remove obstacles to the emergence of second-generation agriculture, i.e. semi-intensive and industrial agriculture capable of ensuring food security and self-sufficiency, of supplying the processing industry and create an internal market and consumption for the outgoing sectors and finally to develop exports and thus improve the trade balance;
- + Establish mechanisms to encourage the use of local inputs in industries and assess the possibilities of substituting certain imported inputs with local inputs, particularly in the agro-industry sector.

- ✚ Develop and implement a communication and awareness plan in favor of the consumption of local products (change in consumption habits).

3.2.2. Development and consolidation of physical and cognitive infrastructures

High factor costs induce equally high production costs, which has the effect of reducing the price competitiveness of companies operating in agro-industry. It is therefore important to sustainably lay the foundations of the competitiveness of the Cameroonian economy, by strengthening infrastructure, determining factors in the competitiveness of SMEs. The objectives are therefore the following:

- ✚ Accelerate the construction of physical infrastructure in various fields (energy, transport, water, ICT, etc.) in order to make up for the delay in providing the country with production infrastructure and reduce the factor costs of SMEs in the agro-industry ;
- ✚ Make the vocational training policy more adapted to the needs of companies;
- ✚ Reform training programs taking into account the future skills needs of the economy;
- ✚ Promote R&D and the use of research results in agro-industry;

3.2.3. Commercial capacity building and partnership development

- ✚ Promote and diversify exports through the development of a culture of quality, a good understanding of the advantages and constraints of international trade agreements by the private sector and support structures as well as a prospective monitoring of the evolution of world demand ;
- ✚ Improve the performance of the supply chain (corridors, ports and airports) in trade with ECCAS + Nigeria and facilitate cross-border trade;
- ✚ Strengthen the capacities of the distribution chain;
- ✚ Establish partnerships with major local product distribution chains.

3.2.4. Development and strengthening of private sector support institutions

- ✚ Strengthen the capacities of institutions in charge of public-private dialogue on competitiveness;
- ✚ Revitalize the existing tripartite consultation framework between economic administrations, the various actors of the private sector, and civil society;
- ✚ Make more resources available to support structures for SMEs for better functioning;

✚ Ensure better coordination of institutions involved in agro-industry.

CHAPTER 4: PROFILING THE AGRO-INDUSTRY SECTOR

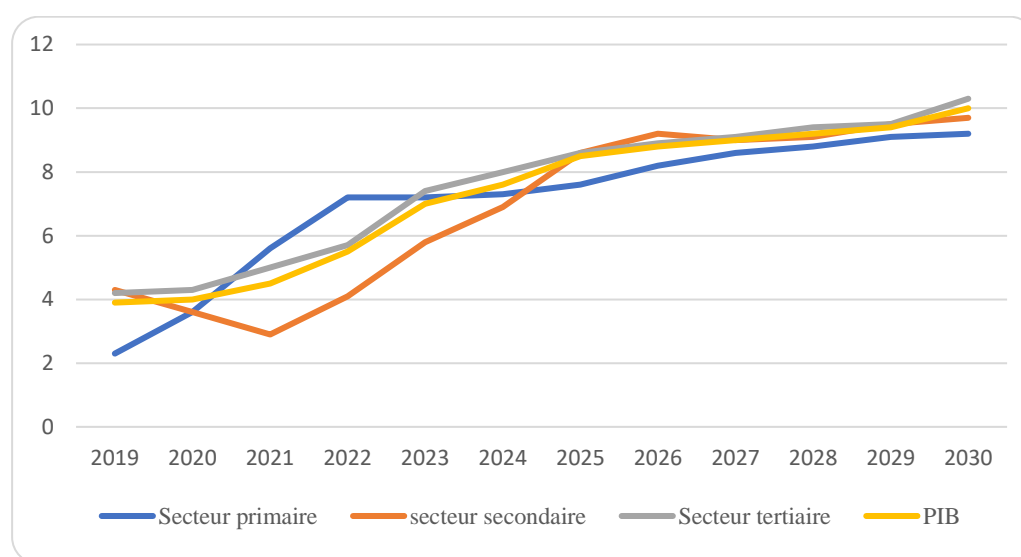
This section focuses on the profiling of SMESEHSs in the agro-industry sector, starting from the efforts to be made for catching up in terms of production to contribute to the implementation of the import-substitution policy.

4.1. GDP GAP ANALYSIS

4.1.1. Growth forecasts

The National Development Strategy (SND30) provided for a gradual increase in economic growth by 2030. The growth rate was anticipated at 4% in 2020, 4.5% in 2021 and 5.5% in 2022. In 2023 the economic growth should experience a strong acceleration from 7% during this year to reach 10% in 2030. Thus the GDP should therefore increase from 16,903 billion in 2019 in real value to 37,765 billion FCFA in 2030.

Graph 5: Growth path predicted by the SND30



Source: Based on data from SND 30, page 202

4.1.2. Growth Achievements

The economic growth forecast for 2020 has been seriously compromised by the outbreak of the corona virus pandemic. The Cameroonian economy has grown this year by only 0.5%. Although the expected level of growth is lower than expected, it should be noted that compared to other countries in the CEMAC sub-region, Cameroon has shown resilience in the face of the adverse economic consequences of this pandemic.

In 2021, economic growth was 3.5% against an expected level of 4.5%, a loss of one point. For the year 2022, the growth rate is estimated at 4.4%, i.e. a difference of 1.1 points below forecasts.

4.1.3. Catch-up prospects

The mixed performance of the Cameroonian economy during the first two years of implementation of the SND30 implies the deployment of additional efforts to ensure the achievement of the objectives set for 2030. The level of economic growth effort initially expected to average 7.2% over the SND30 implementation period should be raised to at least 9.5% on average over the 2023-2030 period, taking into account growth estimated at 4.4% in 2022 in order to achieve the real GDP target of 37,765 billion FCFA in 2030 through the following formula:

$$\text{Real GDP}_{2030} = (1 + r_m)^8 \text{Real GDP}_{2022}(1)$$

A realistic prospect would be to envisage growth rates of the order of 5 to 6% over the next two years and double-digit growth levels for future years. These years of modest growth correspond to the realization of the investments necessary for the increase in production capacities. While the years of double-digit growth would correspond to the periods when new productive devices are put into production.

Table 38: Catch-up growth (in billions of CFA)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
SND30 growth rate	3.9	4	4.5	5.5	7	7.6	8.5	8.8	9	9.2	9.4	10
GDP SND30 base 2019	16,903	17,582	18,369	19,382	20,731	22,306	25,196	30 103	28,715	31,370	34,332	37,765
Achieved growth rate	3.7	0.5	3.5	4.4								
Growth gap	0.2	3.5	1	1.1								
Real catch-up growth rate in %	3.7	0.5	3.5	4.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Real GDP	16,869	16,988	17,582	18,356	20,088	21,984	24,059	26,329	28,814	31,533	34,508	37,765

Source: Based on data from SND 30 and INS

4.2. GAP ANALYSIS AT SECTOR ADDED VALUE LEVEL

4.2.1. The primary sector

The agricultural sector experienced timid growth in 2020 marked by an increase of 0.6%, below the expectations of the SND30 which had anticipated a rate of 3.6%. The Covid 19 crisis has in fact greatly disrupted the growth of partner countries, particularly China, which has sent a weaker demand for logs to the local economy. In addition, sub-regional trade has been greatly disrupted due to the closure of borders with several neighbouring countries. In 2021, growth in the agricultural sector increased to 3.8%. However, this improvement remains below the forecasts set at 5.1%. In 2022, the agricultural sector continued to progress, achieving economic growth of 4.3%. It should be noted, however, that a jump in growth of 7.2% was forecast by the SND30. This expected growth jump was supposed to be triggered by the implementation of operational plans relating to the various priority sectors: cocoa, rice, palm oil, etc.

4.2.2. The secondary sector

The SND30 forecast a seesaw growth in the secondary sector over the period 2020-2022 of 3.6%, 2.9% and 4.1% respectively. The achievements were respectively 2.8%, 3.3% and 4.2%. Thus over the years 2021 and 2022, the performances were somewhat higher than the achievements

4.2.3. The tertiary sector

The year 2020 was particularly difficult for the tertiary sector. The tertiary sector recorded a negative growth rate of -0.4%. The underperformance of this sector is explained by the disruption of international supply chains, given the importance of the weight of commercial activities. The tertiary sector experienced a relative upturn in 2021. The growth rate of its added value rose to 3.7%. However, its performance remains below the SND30 target, which forecast growth of 5 points. It is the same for the years 2022 where a target of 5.7% was targeted against an achievement of 4.4%.

Table 39: Sector growth gaps

	2019			2020			2021			2022		
	SND30	Estimate	Gap	SND30	Estimate	Gap	SND30	Estimate	Gap	SND30	Estimate	Gap
Primary	2.3	2.8	-0.5	3.6	0.6	3	5.1	3.8	1.3	7.2	4.3	2.9
Secondary	4.3	4.9	-0.6	3.6	2.8	0.8	2.9	3.3	-0.4	4.1	4.2	-0.1
<i>of which oil</i>	6	8.5	-2.5	0.5	1.3	-0.8	-5.7	0.9	-6.6	-5	-0.6	-4.4
Tertiary	4.2	3	1.2	4.3	-0.4	4.7	5	3.7	1.3	5.7	4.4	1.3

Source: Based on data from SND 30 and INS

4.3. AGRO-INDUSTRY'S GDP CATCH-UP IMPLICATIONS

Taking into account the necessary catch-up at the global level, for this to be the necessary growth in agro-industry, it should be noted that real GDP was to start from 1,052 billion FCFA in 2019 (6.28% of real GDP in 2019) to CFAF 2,477 billion in 2030 in accordance with the growth profile provided for in SND 30. Thus, to be able to achieve this objective and taking into account the efforts made until 2021, growth of 8.4% would be needed for in the sector in order to make up for the delay already observed between 2019 and 2021 through the formula below:

$$Real\ GDP_{2030} = (1 + r_m)^9 Real\ GDP_{2021}(2)$$

This average growth was spread out according to an arithmetic progression over the period 2022-2030 in accordance with the table below:

Table 40: Catch-up growth in agro-industry (in billions of CFA)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Secondary growth rate SND 30	4.3	3.6	2.9	4.1	5.8	6.9	8.6	9.2	9	9.1	9.5	9.7
Agribusiness growth rate SND 30	3.4	4	4.6	5.4	7.1	7.5	8.3	8.7	9.2	9.4	9.5	9.8
GDP SND30 base 2019 in agro-industry	1,061	1,094	1,144	1,206	1,292	1,389	1,504	1,635	1,785	1,953	2,139	2,348
Growth rate achieved in agro-industry	2.4	3.6	4.1									
Growth gap	1	0.4	0.5									
% real catch-up growth rate in agro-industry	2.4	3.6	4.1	4.9	5.8	6.7	7.6	8.4	9.3	10.2	11.1	12
Real GDP	1,052	1,089	1,134	1,190	1,259	1,343	1,445	1,567	1,713	1,888	2,097	2,348

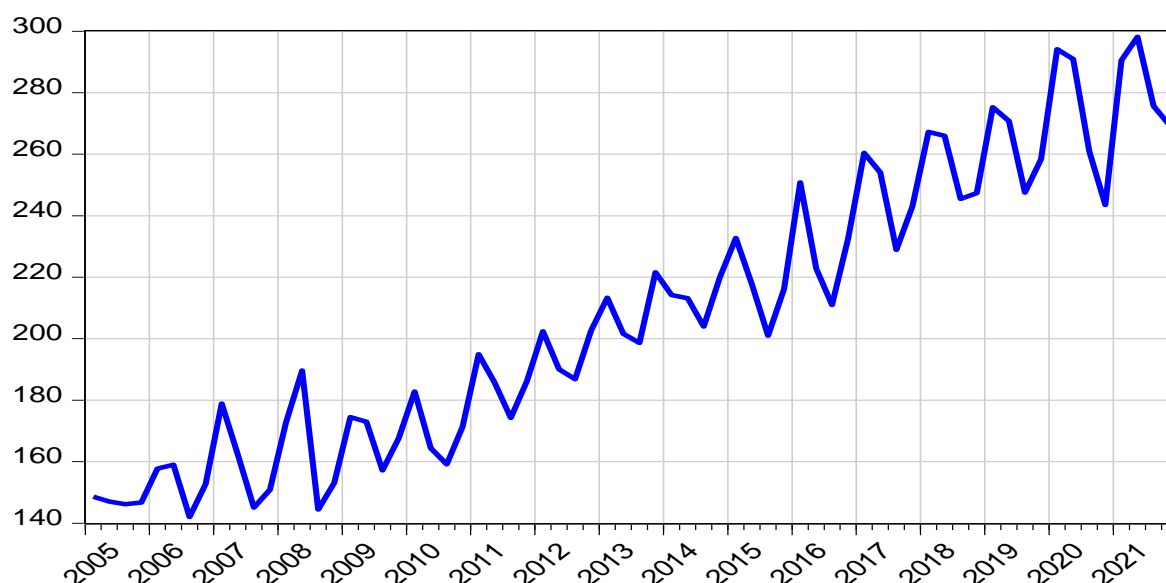
Source: Based on data from SND 30 and INS

4.4. AGRO-INDUSTRY TREND GDP ESTIMATE AND FORECAST

The estimate of trend GDP in agribusiness was based on quarterly national accounts data between the first quarter of 2005 and the fourth quarter of 2021. However, it should be recalled that since 2020 the basic price (or reference) is that of 2016, but the data dating from before 2020 uses the basic price of 2005, the same is true of the data of the SND 30. As a result, we have opted to rebase the data from 2020 and 2021 on the 2005 base price to be in line with SND 30 data for comparison purposes.

Graph 6: Evolution of the real GDP of agro-industry between 2005 and 2021 (quarterly data in billions of CFA)

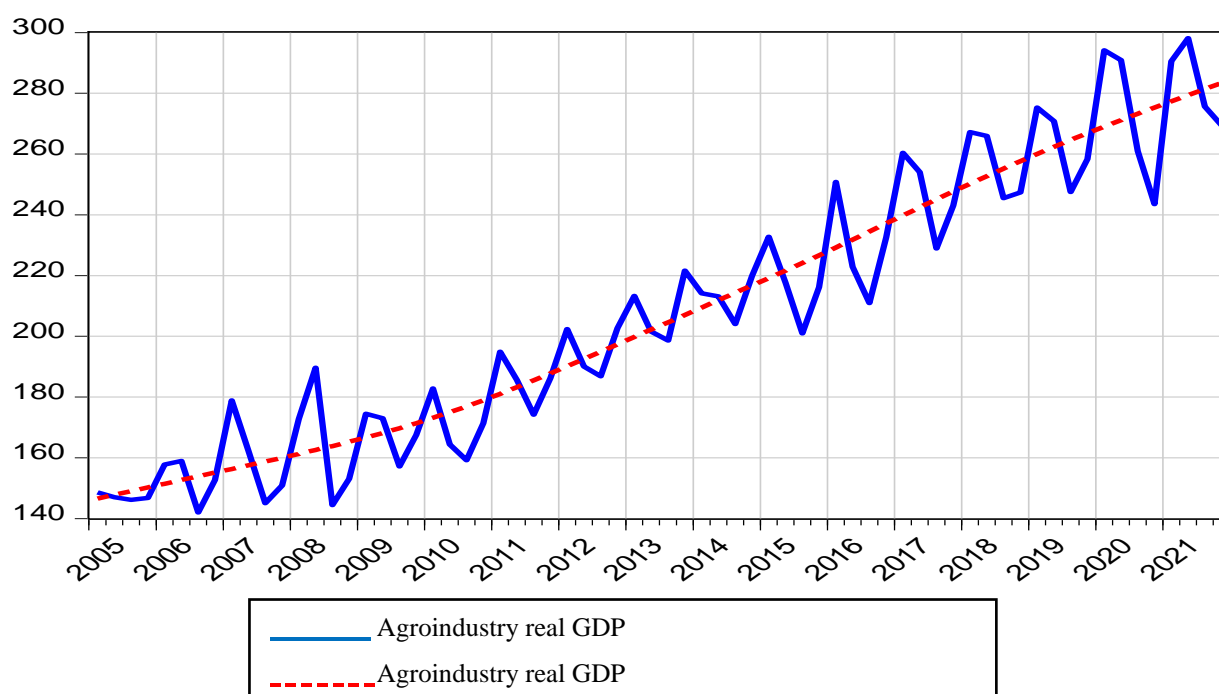
Agroindustry real GDP



Source: Based on INS data

To estimate the trend, the Hodrick Prescott filter (HP filter) was used with the lambda parameter of 1600 to better capture the seasonality effects that appear in graph 7, thus graph 8 presents the trend GDP between 2005 and 2021 .

Graph 7: Evolution of the trend real GDP of agro-industry between 2005 and 2021 (quarterly data in billions of CFA)



Source: Based on INS data

After determining this trend, forecasts were made from 2022 to 2030 as well as estimating seasonal effects.

Concerning the forecasts, two econometric models have been implemented, an ARMA modelling and an AR modelling with the presence of the trend (inspired by the IMF models), the specifications of the 02 models are as follows:

Model 1: ARMA (2.7)

$$GDDP_t = c + a_1GDP_{t-1} + a_2GDP_{t-2} + \varepsilon_t + b_1\varepsilon_{t-1} + b_2\varepsilon_{t-2} + b_3\varepsilon_{t-3} + b_4\varepsilon_{t-4} + b_5\varepsilon_{t-5} + b_6\varepsilon_{t-6} + b_7\varepsilon_{t-7}$$

Avec $\varepsilon_t \sim iid$ (3)

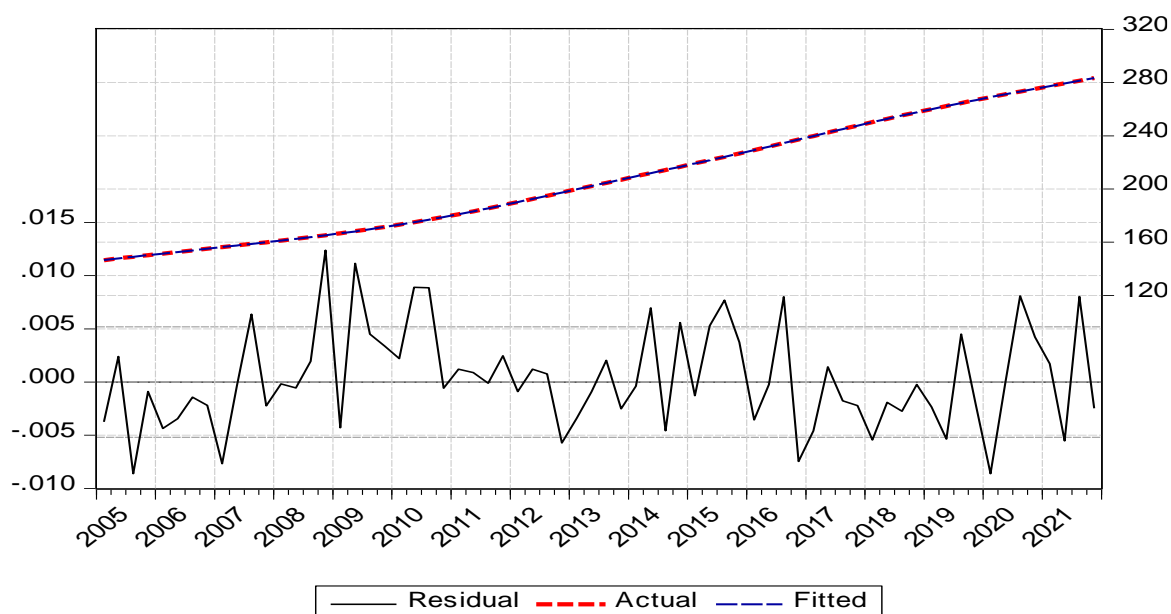
Model 2: AR (7) with trend

$$GDP_t = c + \alpha t + a_1GDP_{t-1} + a_2GDP_{t-2} + a_3GDP_{t-3} + a_4GDP_{t-4} + a_5GDP_{t-5} + a_6GDP_{t-6} + a_7GDP_{t-7} + \varepsilon_t$$

Avec $\varepsilon_t \sim iid$ (4)

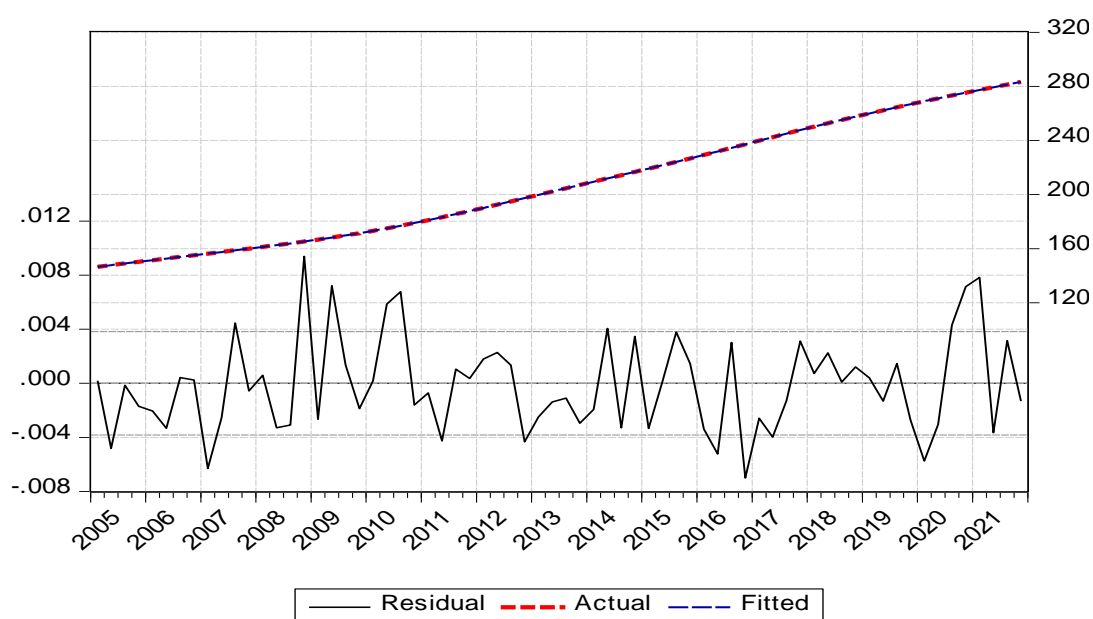
The estimates of the two models are presented in the appendix, however the following graph makes it possible to assess the quality of prediction of these 02 models:

Graph 8: Prediction for the 1st forecast model



Source: Based on INS data

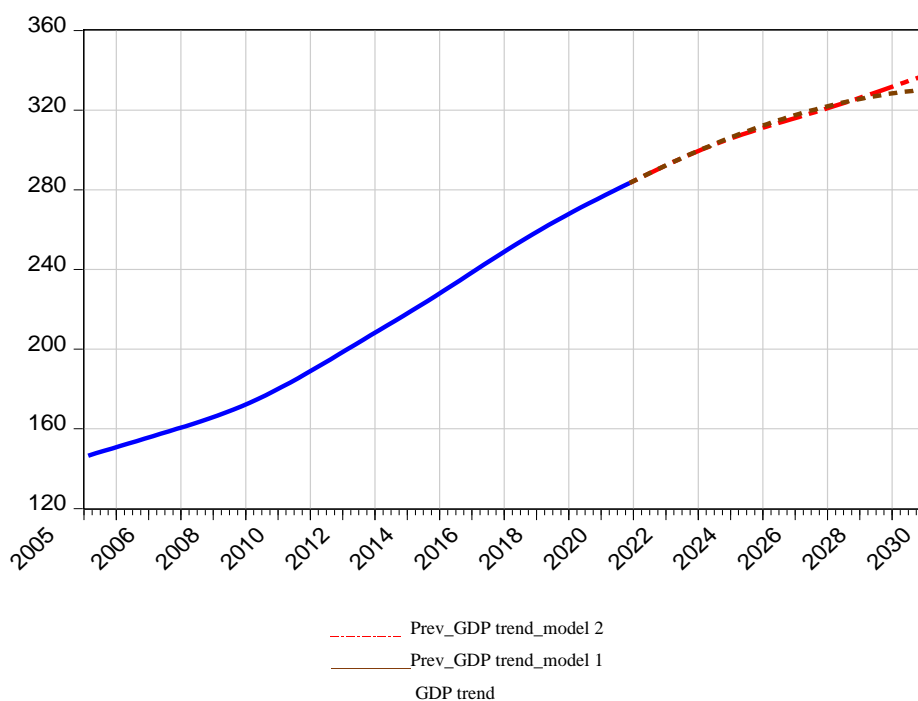
Graph 9: Prediction for the 1st forecast model



Source: Based on INS data

We note that these models have a good predictive power of trend GDP, moreover in terms of forecasts, they are not far from each other as the following graph suggests:

Graph 10: Trend GDP forecasts of the 02 models between 2022 and 2030

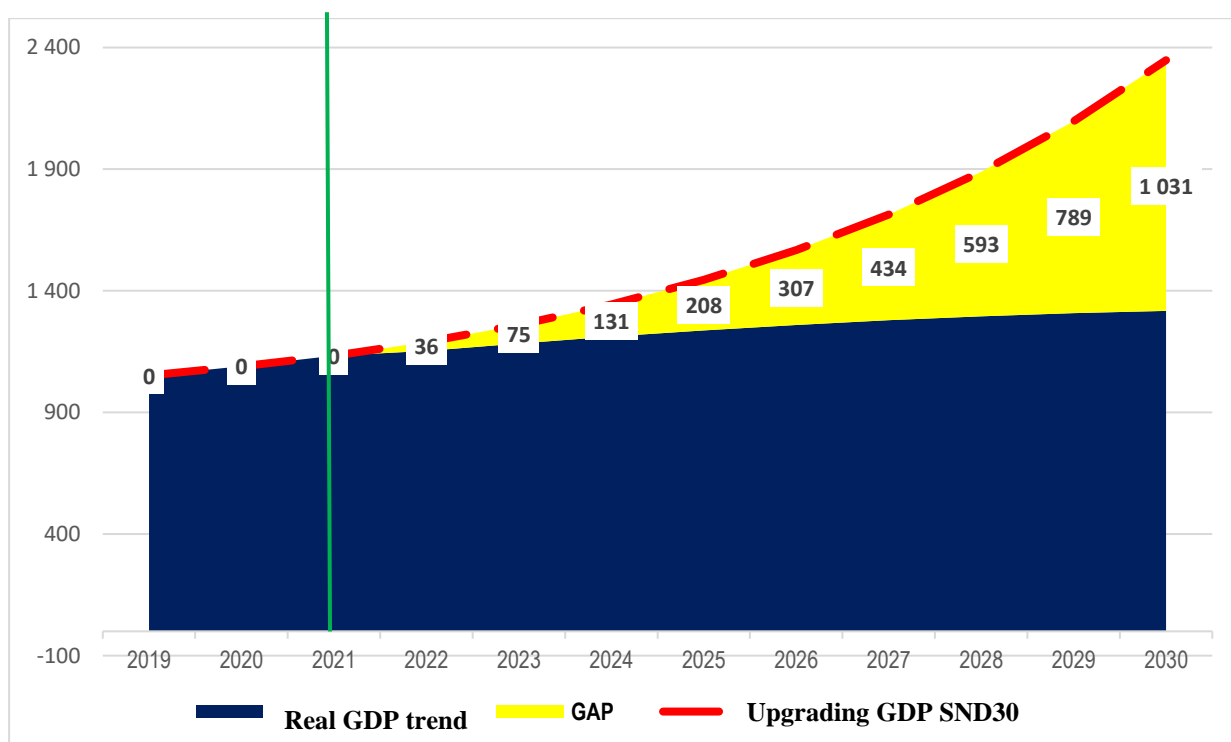


Source: Based on INS data

Although in terms of information criterion, model 2 is of better quality than model 1, we rather opt for model 1 because at the level of the analysis of the residuals, it presents a better adequacy to the normal law than that of model 2, however the 02 residues are indeed white noises, the test results are presented in the appendix.

With regard to the forecasts of model 1, the data were grouped together on an annual basis (summation of quarterly data) then the gap with catch-up GDP as mentioned in table 3 was calculated, graph 12 illustrates the magnitude of the gap.

Graph 11: GDP gap in agro-industry between 2022 and 2030 (in billions of FCFA)



Source: Based on INS data

In view of the graph above, the gap follows an increasing trend from 36 billion CFA in 2022 to 1031 billion CFA in 2030, this shows that many efforts should be made to increase productivity in this sector, particularly those of SMEs which are very predominant in this sector, through the strengthening of incentive measures.

4.5. GAP ESTIMATION OF THE ADDED VALUE OF AGRO-INDUSTRY.

Estimating the added value of agro-industry between 2022 and 2030 required, in addition to the agro-industrial GDP gaps previously calculated, data from the SIPAE database on production (in value) and gross added value per branch of agro-industry from 2016 to 2018. Thus, having in this base and for the period 2016-2018 the GDP of agro-industry and taxes net of subsidies on agro-industry products, the calculations following intermediate steps are carried out:

- The calculation of the average weight of taxes net of subsidies on agro-industrial products in agro-industrial GDP between 2016 and 2018 according to the formula:

$$\text{Average weight} = \frac{1}{3} \sum_{i=2016}^{2018} \frac{\text{Net tax}_i}{\text{Agroindustrial GDP}_i} \quad (1)$$

$\text{Net tax}_i = \text{Tax net of subsidies for agroindustrial products for year } i$

- The estimate of trend net taxes (respectively catch-up) by applying the average weight of net taxes to trend GDP (respectively to catch-up GDP) over the period 2016-2018 according to the formulas:

$$\text{Net tax trend}_i = \text{Average weight} * \text{Agroindustrial GDP trend}_i \quad (2)$$

$$\text{Upgrading net tax}_i = \text{Average weight} * \text{Upgrading agroindustrial GDP}_i \quad (3)$$

Avec $2022 \leq i \leq 2030$

- The calculation of trend value added (VA) (respectively catch-up) of agro-industry between 2022 and 2030 using the formulas:

$$\text{VA trend}_i = \text{Agroindustrial GDP trend}_i - \text{Net tax trend}_i \quad (4)$$

$$\text{Upgrading VA}_i = \text{Upgrading agroindustrial GDP}_i - \text{Upgrading net tax}_i \quad (5)$$

Avec $2022 \leq i \leq 2030$

Once these calculations have been made, the value added gaps of agribusiness from 2022 to 2030 are finally given by:

$$\text{Agroindustry VA Gap}_i = \text{Upgrading VA}_i - \text{VA trend}_i \quad (6)$$

$2022 \leq i \leq 2030$,

The results obtained are recorded in the table opposite:

Table 41: Evolution of the added value gap of agro-industry from 2022 to 2030 (in billions of FCFA)

Wording	2022	2023	2024	2025	2026	2027	2028	2029	2030
SND 30 catch-up real GDP	1,190	1,259	1,343	1,445	1,567	1,713	1,888	2,097	2,348
Trend Real GDP	1,153	1,184	1,212	1,237	1,260	1,279	1,295	1,308	1,317
Trend net taxes	97	99	102	104	106	107	109	110	111
Net catch-up taxes of the SND 30	100	106	113	121	132	144	159	176	197
Trend VA	1,056	1,084	1,110	1,133	1,154	1,172	1,187	1,198	1,207
SND 30 catch-up VA	1,090	1,153	1,230	1,323	1,435	1,569	1,729	1,921	2,151
VA GAP	33	69	120	190	281	397	543	723	944

Source: MINPMEESA, based on SIPAE data

This table indicates that the value added gap of agro-industry should follow an increasing trend from 33 billion CFA francs in 2022 to 944 billion CFA francs in 2030. Moreover, this gap practically doubles from 2023 to 2024. This means that measures must be taken in 2023 to fill this gap, otherwise the agro-industrial VA gap could be greater in the following years.

Having the VA gaps of agro-industry globally over the period 2022-2030, it is now necessary to determine the branches and products of agro-industry that carry these gaps. This requires estimating the gaps in added value by branch and by agro-industrial product.

4.6. ESTIMATE OF THE GAP OF VA AND PRODUCTION OF PRODUCTS AND BRANCH OF AGRO-INDUSTRY AND FORECASTS

The estimation of the trend value added by agro-industry branches and products was made from the SIPAE database mentioned above. Since the database only contains the added values for the branches of the economy and not for the products, several intermediate stages preceded this estimate.

First of all, the sorting of the base to retain only the branches of agro-industry and their respective products. Then, for the available years (2016-2018), the weights of each product in their branch are calculated by the formula:

$$\text{Product weight}_{ij} = \frac{P_{ij}}{P_j} * 100 ; (7)$$

avec: $1 \leq i \leq 37$

P_{ij} = Product i Value production for year j

P_j = total branch value production for year j

(

Then, the average weight over the three 03 years (2016-2018) of each product in its branch is calculated as follows:

$$\text{Average weight}_i = \frac{1}{3} \sum_{j=2016}^{2018} \text{product weight}_{ij}$$

Considering that the weight of the production of each product in its branch is proportional to the weight of the added value of this same product in its branch, the added value of each product i during a year j is obtained by a rule of three:

$$\text{Product VA}_{ij} = \frac{\text{Poids moyen}_i * \text{VA_Branch}_j}{100} \quad (9)$$

product VA_i = Product i Added Value for year j

VA_Branche_j = Branch i Added Value for year j

$$1 \leq i \leq 37$$

$$2016 \leq j \leq 2018$$

Having obtained the added values by products and branches of agro-industry between 2016 and 2018, the production gaps in value by branches and products of agro-industry are deduced by rules of three:

$$\text{VA product Gap}_{ij} = \frac{\text{product weight}_{ij} * \text{VA}_{branch} \text{Gap}_j}{100} ; (10)$$

$$2022 \leq j \leq 2030 ; 1 \leq i \leq 37$$

Productweight_{ij} = product i weight in its branch for year j

VA_{branche} Gap_j = Product i added value Gap for year j

VAp_{product} Gap_{ij} = Product i added value Gap for year j

The results obtained are recorded in appendix 14

This table shows that between 2022 and 2030, just as for the overall value added gaps of the agro-industry, the VA gaps of the agro-industrial sector should increase for all products and therefore all branches of agro-industry. Nevertheless, the strong growth of value added gaps in

agro-industry over this period should be driven mainly by four (04) branches. Indeed, between 2022 and 2030, the manufacture of beer and malt; the production, processing and preservation of meat, bakery, pastry and the manufacture of pasta and the manufacture of crude oils and cakes should contribute on average to 54.91 % each year of the VA gap of agro-industry. It is therefore appropriate to focus specifically on the additional production efforts to be made, i.e. to estimate production gaps by agro-industry branches industry.

4.7. DETERMINATION OF PRODUCTION GAP BY AGRO-INDUSTRY BRANCHES AND PRODUCTS BETWEEN 2022 AND 2030

As for the two previous sections, the estimates of the production gaps of the agro-industrial branches required the SIPAE database previously described.

The calculation of intermediate consumption (IC) for each branch of agro-industrial processing during the period 2016-2018 based on the formula:

$$production_agro_j = \sum_{i=1}^{37} VA_produit_{ij} + \sum_{i=1}^{37} CI_produit_{ij} \quad (11)$$

CI_produit_i = Intermediat consumption for product i

production_agro_j = Valeur production for agroindustrie for year j

VA_produit_{ij} = Added Valeur of product i for year j

CI_produit_{ij} = Intermediat consumption for product i for year j

$$1 \leq i \leq 37 ; 2022 \leq j \leq 2030$$

From this formula, the intermediate consumption of each branch is deduced by the difference between production and value added. Then the average weight of the CI of each branch in the total added value of industrial processing is calculated over the period 2016-2018 using the same method of calculating the average weight as above. From the GAP of VA of each branch in 2022, the GAP of CI of each branch in 2022, thereafter in each branch by having the weight of these products, we deduce the GAP of CI of each product and finally we determine the GAP of production of each branch and product by applying the sum:

$$\text{Production GAP} = \text{VA GAP} + \text{CI GAP} \quad (16)$$

The estimate of these different GAPs, namely VA, CI and Production for each branch and product, is calculated as follows:

$$CI\ GAP_{\text{année } n} = (VA\ GAP_n * CI\ GAP_{n-1}) / VA\ GAP_{n-1}$$

The calculations then give the table in appendix 15

4.8. IDENTIFICATION OF THE MOST PROMISING AGRO-INDUSTRY PRODUCTS

4.8.1. Identification of the most promising products in agro-industrial production

Cameroon in its strategy of development of the agro-industrial sector by the mix-import substitution and promotion of exports must increase its production of agricultural products in quantity and quality to ensure its food self-sufficiency, to supply the growing demand of agro-industries in agricultural raw materials and to conquer international markets, particularly those of the ECCAS and ECOWAS sub-regions. Some products were already part of the SND30 target, these are: sugar, palm oil, plantain, meat, rice, millet and sorghum, cocoa, coffee, etc. However, thanks to the production gaps of the various agro-industrial branches and products thus determined, it was possible to identify the products having more importance in the agro-industrial production process in Cameroon for the period 2022-2030. The procedure is as follows:

- Calculation of the weight α_{ij} of each product i resulting from agro-industrial production in the total agro-industrial production produced for each year j (2022 and 2030);

$$\alpha_{ij} = \frac{\text{Production Gap dfro product } i \text{ for year } j}{\text{Totale agro-industrialn production for year } j} * 100, \quad (11)$$

$$2022 \leq j \leq 2030 \text{ and } 1 \leq i \leq 37$$

- Calculation of the average weight of each product in agro-industrial production in 2022 and 2030:

$$\text{Average weight}_i = \frac{1}{9} \sum_{j=2022}^{2030} \alpha_{ij}$$

$$2022 \leq j \leq 2030 \text{ and } 1 \leq i \leq 37$$

- The classification of products according to the descending order of their average weight;

- The choice of the significance threshold: a product is considered to have a significant value in agro-industrial production if its average weight between 2022 and 2030 is > 1%.

The results of this procedure are recorded in the table in the appendix which gives the classification by order of importance of the products of agro-industrial production.

4.8.2. Identification of the most promising products in agro-industrial processing

Beyond agro-industrial production, the transformation of the raw materials produced is essential for the achievement of the country's industrialization objectives in the agro-industrial sector. It is therefore important to identify the most promising products in agro-industrial processing.

To do this, the following approach is adopted:

- Calculation of the weight α_{ij} of each product i from agro-industrial processing in the total agro-industrial production gap for each year j from 2022 to 2030;

$$\alpha_{ij} = \frac{\text{Production Gap dfro product } i \text{ for year } j}{\text{Total production Gap for year } j} * 100, \quad (13)$$

$2022 \leq j \leq 2030 \text{ et } 1 \leq i \leq 37$

- Calculation of the average weight of each product in the agro-industrial production gap over the period 2022-2030:

$$\text{Average weight}_i = \frac{1}{9} \sum_{j=2022}^{2030} \alpha_{ij}$$

$2022 < i < 2030 \text{ and } 1 < i < 37$

- The classification of products in descending order of their average weight;
- The choice of the significance threshold: a product is considered to have a significant value in agro-industrial processing if its average weight over the period 2022-2030 is > 1%.

After calculations, the classification of these products is entered in the classification table of products in agro-industrial processing n in the appendix.

After these various calculations, the fifteen (15) most promising products of agro-industrial production on the one hand and those of agro-industrial processing on the other hand were

selected. This is because of their important contribution. The choice was made according to the fixed threshold specified above for the production and agro-industrial processing components.

Table 42: Classification of the 15 most promising products of industrial production and agro-industrial processing

Produits de la production agro-industrielle	Poids moyen entre 2022 et 2030 (en%)	Rang
Fève de cacao séchée	14,54	1
Graine de maïs séchée	14,35	2
Bovins sur pieds et lait de vache brut	9,9	3
Mil et Sorgho	9,51	4
Manioc frais	6,15	5
Arachides graines	5,63	6
Riz paddy	4,39	7
Légumes feuilles locales et champignons	4,35	8
Autres tubercules	3,07	9
Bananes plantains	2,95	10
Macabo et Taro	2,91	11
Volailles vivantes et œufs	2,82	12
Bananes douces	2,8	13
Ovins, caprins et lait brut	2,55	14
Autres légumineuses et légumes secs	2,52	15
Total cumulé	88,44	
Autres produits	11,56	
Total	100	

Produits de la transformation agro-industrielle	Poids moyen entre 2022 et 2030 (en %)	Rang
Bière	17,17	1
Gibier frais, fumé ou séché	13,52	2
Beignets de tout genre [1]*	6,33	3
Huile brute de palme	6,14	4
Pain et pâtisserie fraîche	4,84	5
Lait, beurre et glaces	4,83	6
Produits de Pêche continentale et aquaculture	3,8	7
Farine de maïs	3,58	8
Riz graine décortiqué	3,57	9
Boissons alcoolisées artisanales	3,28	10
Sucre et mélasse	2,97	11
Autres huiles brutes	2,81	12
Chocolat, confiseries et préparations à base de chocolat	2,25	13
Boissons non alcoolisées et eaux minérales	2,24	14
Tourteaux	2,01	15
Total cumulé	62,17	
Autres produits	37,83	
Total	100	

Source: MINPMEESA

It is clear that the 15 most promising products of industrial production alone would contribute to 88.53% in this aspect of agro-industry in 2030; regarding industrial processing, the

top 15 products are expected to account for almost 80% of the total value of agro-industrial processing output in 2030.

Moreover, it appears that the most important products of the processing component use the raw materials which have a greater value in the production component. For example, beer is the product that contributes the most to the added value of agro-industrial processing in Cameroon. Similarly, we also find corn, which has the greatest weight in production, and is a raw material in the processing of beer. . We also note that certain high-weight products in the production component do not bring us much in processing, such as the dried cocoa bean which occupies an important place in production but not in processing, so policies can be oriented either towards a concentration of cocoa processing or on the production of maize in which we have more interests.

4.9. DETERMINATION OF GAPS IN QUANTITY OF PRODUCTION OF HIGH VALUE ADDED PRODUCTS FROM THE AGRI-INDUSTRY OVER THE PERIOD 2022-2030

The previous section made it possible to identify the agro-industrial transformation products for which it is a priority to increase production in order to achieve the objectives of the SND30. However, increasing their production implies taking an interest in the raw materials that make it possible to produce them. . It is therefore now a question of determining the additional efforts to be made in terms of production in agro-industrial quantity. This estimate first went through the identification of the quantities of the products on the basis of FAO stats, and their production in 2018 (base year). Subsequently from this data, the quantity gaps of each product are determined by performing a rule of three from 2022 to 2030; the formula is:

$$\text{Quantity GAP}_{ij} = \frac{\text{Production GAP}_{ij} * \text{Quantity}_i}{\text{Production}_i} \quad (15)$$

$$1 \leq i \leq 37 \text{ et } 2022 \leq j \leq 2030$$

Quantity GAP_{ij} = Production gap in quantity for product i for year j

Production GAP_{ij} = Production gap in value for produit i for year j

Production GAP_{ij} = Production gap in value for product i for year j

Quantity_i = Quantity produced for product i in 2018

Production_i = Production in value for produit i in 2018

Table 43: Evolution of production gaps in quantity of the most promising agro-industrial processing products between 2022 and 2030 (in tons)

Product	2022	2023	2024	2025	2026	2027	2028	2029	2030
Beer	16,012.89	33,058.26	57,763.63	92,184.70	135,133.34	205,035.49	260,625.34	347,047.62	453,295.16
Fresh, smoked or dried game	8,943.97	16,917.60	29,555.13	47,006.62	69,125.88	57,704.58	133,336.59	177,549.28	231,898.80
Donuts of all kinds	-	-	-	-	-	-	-	-	-
Crude palm oil	7,470.37	15,428.12	26,942.01	42,996.03	63,032.56	95,651.15	121,584.17	161,902.17	211,464.60
Bread and fresh pastry	-	-	-	-	-	-	-	-	-
Milk, butter and ice cream	3,141.11	6,486.09	11,326.65	18,065.26	26,404.01	40,182.10	51,081.56	68,032.69	88,846.53
Inland Fisheries and Aquaculture Products	4,449.98	9,193.38	16,052.57	25,626.71	37,572.54	56,988.62	72,447.92	96,460.38	125,995.36
Corn flour	52,849.59	109,180.62	190,785.33	304,401.92	446,236.99	677,169.61	939,238.18	1,250,629.16	1,633,415.76
Husked seed rice	7,173.50	14,799.30	25,866.29	41,253.90	60,488.14	91,747.53	116,622.85	155,288.37	202,844.88
Craft alcoholic beverages	12,064.75	24,811.08	43,380.49	69,150.39	101,415.03	153,806.43	195,528.31	260,302.89	340,098.10
Sugar and molasses	32,477.32	67,227.71	117,322.12	187,040.07	274,417.39	416,198.56	529,058.94	704,702.03	920,375.94
Other crude oils	1,484.11	3,065.05	5,352.48	8,541.88	12,522.47	19,002.70	24,154.72	32,164.56	42,010.97
Chocolate, confectionery and chocolate-based preparations	5,976.80	12,337.85	21,518.87	34,378.21	50,392.73	76,450.86	97,173.57	129,396.53	168,995.15
Soft drinks and mineral waters	4,123.62	8,487.06	14,827.23	23,655.05	34,663.82	52,601.49	66,814.35	88,970.20	116,239.07
Wheat flour (wheat)	17.62	36.4	63.6	101.48	148.76	225.75	313.12	416.93	544.54

Source: INS, our calculations

Overall, the production gaps of the various products gradually increase until 2030. The biggest production gap observed by 2030 is that of corn flour, with more than 1.6 million additional tons produce by then; while wheat flour had the smallest production gap that year, around 555 tons. Thus, significant efforts should be made to increase maize production to successfully replace wheat.

Moreover, it appears that the additional production efforts are not proportional to the rank of importance of the products. Indeed, some products present larger production gaps than other products which nevertheless bring more value than them. This is the case for sugar and molasses which, although occupying the 11th place of the most promising manufacturing processing products by 2030, requires twice as much production effort (gap of 920,375.94 tons in 2030) than the beer that is at the top of this ranking (gap of 453,295.16 tons in 2030).

In view of the additional quantities to be produced to achieve the industrialization objectives for 2030, particularly in the agro-industry sector, it is necessary to take an interest in the number of production units necessary to fill these gaps, 'where the subject of the next section.

4.10. ESTIMATED NUMBER OF ADDITIONAL COMPANIES TO BE ESTABLISHED OVER THE 2022-2030 PERIOD

Based on the situational analysis of SMESEHSs processing a few key agro-industrial products and their production, an estimate of their additional need for agro-industrial production units was made.

The formula used is as follows:

$$N_{i,j} = \frac{GAP\ quantity_{ij} \times N_i}{Quantity_i} \quad (16)$$

GAP quantity_{ij} = production gap in quantity of product i for the year j

N_{i,j} = Number of additional firms to pour produce GAP quantity_{ij} fro the year j

Quantity_i = Quantity produite du produit i en 2018

N_i = number of firms producing Quantity_i in the year 2018

2022 ≤ j ≤ 2030

This formula is used respectively for the products of agro-industrial production and for those of agro-industrial transformation. The results obtained are presented in the following tables:

Table 44: Evolution of the number of companies necessary for the production of agro-industrial products between 2022 and 2030

Products	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	Accumulation of companies between 2022 -2030
Corn	-	-	-	-	-	1	1	1	1	4
Cocoa	-	-	-	-	1	1	1	2	2	7
Rice	-	-	-	-	-	-	-	1	1	2
Cassava	-	-	-	-	-	1	1	1	1	4

Source: INS, FAO stat, our calculations

It emerges from the analysis of this table that, for the four selected products, there is currently no urgency to create new companies for their production; however, measures can be put in place during this period to increase the production capacities of existing companies. From 2026, the need for an additional cocoa production company is felt, until 2029 when this number doubles. The maize sector should require an additional production unit from 2028. For rice, it is from 2029 that the creation of a new production company should become imperative.

Table 45: Evolution of the GAP of companies producing agro-industrial processing products between 2022 and 2030

Products	Numb er of additio nal compa nies in 2022	Numb er of additio nal compa nies in 2023	Numb er of additio nal compa nies in 2024	Numb er of additio nal compa nies in 2025	Numb er of additio nal compa nies in 2026	Numb er of additio nal compa nies in 2027	Numb er of additio nal compa nies in 2028	Numb er of additio nal compa nies in 2029	Numb er of additio nal compa nies in 2030	Accumul ation of addition al compa nies to be installed between 2022 and 2030
Beer	-	-	-	1	1	1	1	2	2	8
Milk, butter and ice cream	-	-	-	-	-	1	1	1	1	4
Crude palm oil	-	-	-	-	-	1	1	1	1	4
Sugar	-	-	-	-	-	-	-	1	1	2
Fish	-	-	-	-	-	1	1	1	1	4
Fresh, smoked or dried game	-	-	-	1	1	1	2	2	3	10
cassava flour	-	-	-	-	-	1	1	1	1	4
Corn flour	-	-	-	-	-	1	1	1	1	4
Wheat flour	-	-	-	-	-	-	-	1	1	2

Source: INS, FAO stat, our calculations

This table explains the fact that the installation of a new beer manufacturing industry is not urgent before 2025. This need for an additional beer production unit will double from 2029 to 2030. In total, beer, established as the most promising agro-industrial processing product should require 08 additional manufacturing companies.

Moreover, these results show that in terms of flour, the establishment of companies manufacturing maize and cassava flour takes priority over that manufacturing wheat flour.

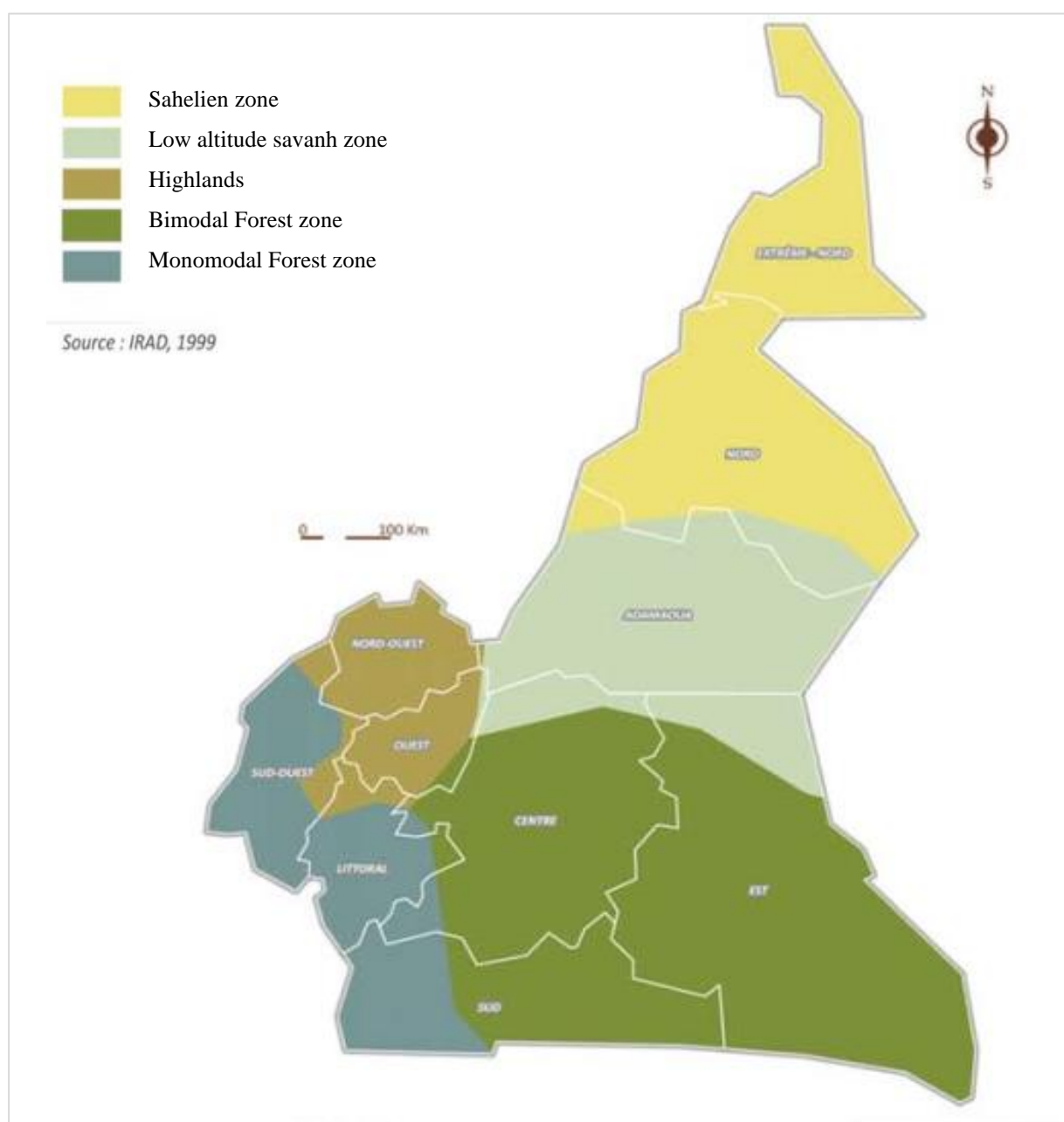
4.11. MAPPING AGRO-INDUSTRIAL BASINS

This step consists of the spatial identification of naturally appropriate sites (relief, climate) for the specific crops and production targeted in this study.

4.11.1. Presentation of agro-ecological zones

In Cameroon, there are 5 (five) main agro-ecological zones with particular specificities related to the geographical position, the climate in connection with the most representative types of production. These are mainly (i) the Sudano-Sahelian zone, (ii) the high savanna zone, (iii) the high plateau zone, (iv) the bi-modal forest zone and (v) the mono-modal forest zone. .

Figure 16 Agro-ecological zones in Cameroon



Source: MINEPAT

The table above presents in detail some characteristics of each agro-ecological zone.

Table 46 agro-ecological zones

Agro ecological zones	Area (in millions of hectares)	Regions concerned	Rainfall (in mm)	Cultivation practiced	Type farming	of
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Sudano-Sahelian zone or Sahelian zone	10.2	- North - Far North	500 - 1200	- Rice, Millet/Sorghum - Corn - Cowpea Cotton - Onion, Sesame	- Cattle - Sheep - goats - Poultry pigs Fishing area: Logone, Lake Maga, Lagdo
zone of the high Guinean savannahs	12.3	- Adamawa - Center part - Eastern part	1500	- Maize, Millet/Sorghum - Cotton - Yam - Potato	Breeding and agro-pastoral activity
Western Highlands Zone	3.1	- West - North West	1500-2000	- Cocoa-coffee, Corn - Bean - Potato - Vegetable crops	- Poultry (80%) - Ruminant
Monomodal forest zone (mangrove zone)	4.5	- Littoral, - Southwest, Southern Coastal Rim - Center part	2500 - 4000	- Cocoa-Coffee - Banana - Plantain - Palm oil	- Poultry - Pigs - Ruminants
Bimodal forest zone	22.5	- Center - South - East	1600-3000	- Cocoa-coffee - Palm oil - Corn - Plantain - Cassava	- Poultry - Pigs - Sheep - goats

From this table, it appears that the Sahelian zone is dominated by the cultivation of cereals, and export crops (cocoa, coffee, banana-plantain, palm oil) are mainly practiced in the forest zones.

With regard to animal production, the raising of cattle and goats is essentially practiced in the Sahelian zone and the zone of the high plateaus is dominated by poultry activities.

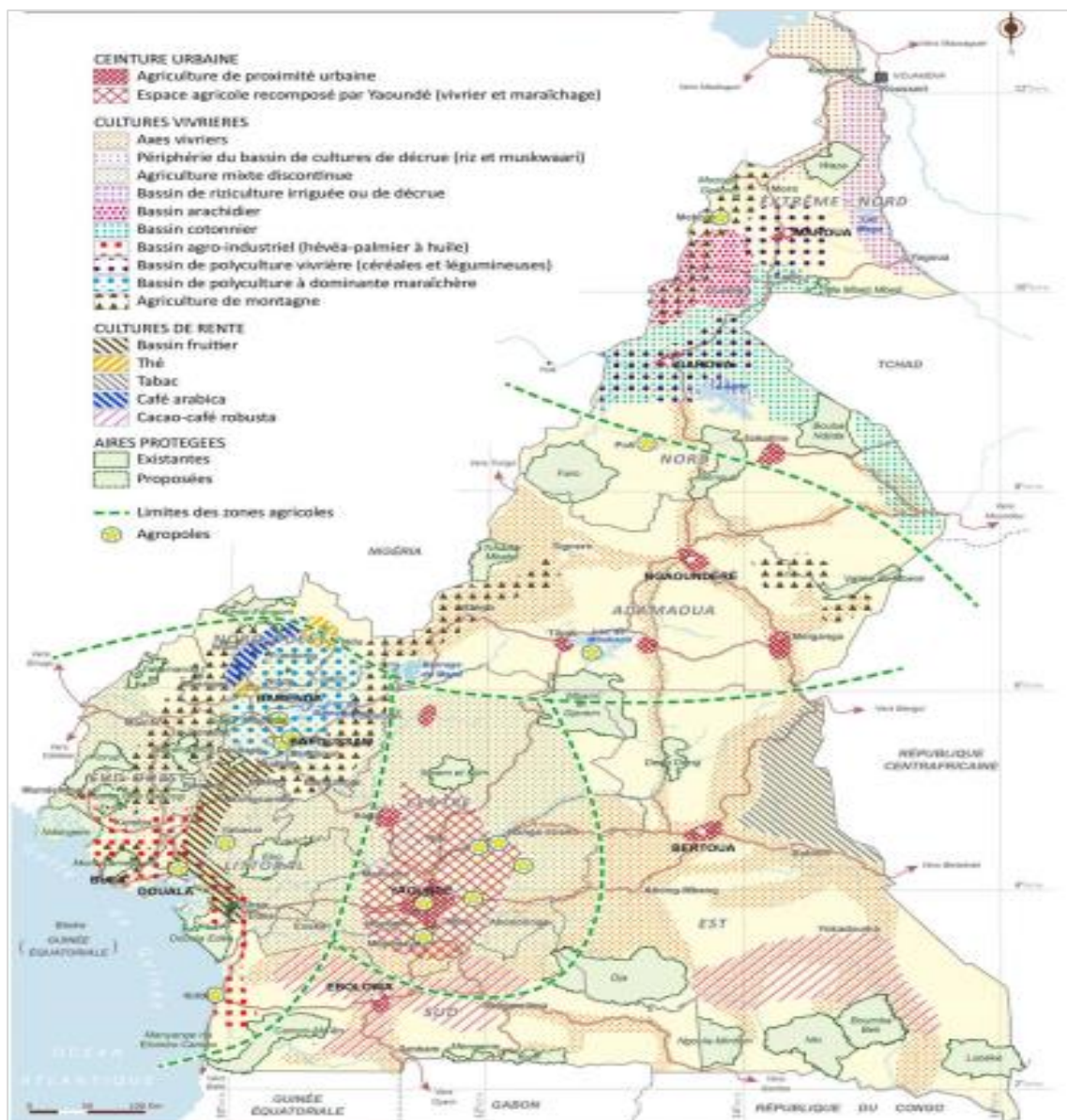
As for fishing, it is practiced in all regions of the country, the country not only having a coastline but also has rivers in all its regions.

4.11.2. Organization of agricultural spaces

The cultivation of agricultural species is highly dependent on the climatic and soil characteristics of the production areas. Depending on the specificities of each zone, the production basins of the different agricultural products are identified. The grouping of these basins makes it possible to have a territorial representation of the products or groups of products resulting from agricultural activity.

The figure above shows the distribution of agricultural production areas in the territory.

Figure 17: Organization of agricultural space in Cameroon



Source: MINEPAT

The major production basins for the agricultural products targeted in the context of this study: cereals (maize, rice, millet/sorghum), cash crops (cocoa, coffee), tubers (cassava), agro-industrial crops (palm oil, banana-plantain) and are located on the national territory in relation to the production requirements of each product.

With regard to the cultivation of cereal products, in general the major production basins are mainly grouped together in the Sudano-Sahelian zone, particularly in the localities close to Garoua and Maroua. However, depending on the targeted speculations, cultivation is also done in other areas.

Maize, for example, is produced in all regions of the country. The yield per hectare varies between 2 and 2.3 tons per hectare for the West, North-West, South-West and Littoral regions; the far north has a yield varying between 1.4 and 1.5 t/ha.

With regard specifically to the cultivation of rice, and more particularly irrigated rice, it is practiced mainly in the border zone with Chad delimited by the towns of Kousséri and Yagoua. The Far North region has the highest yield (1.1-1.3 t/ha) for an exploited area of 75,000 ha. This crop is also practiced in the North and North-West regions over an area of about 25,000 hectares each for a yield ranging between 0.9 and 1 t/ha.

Cocoa cultivation is mainly practiced in the East, South and Littoral, and covers 4 agro-ecological zones. Coffee, in particular the Arabica variety, is present in the North-West region.

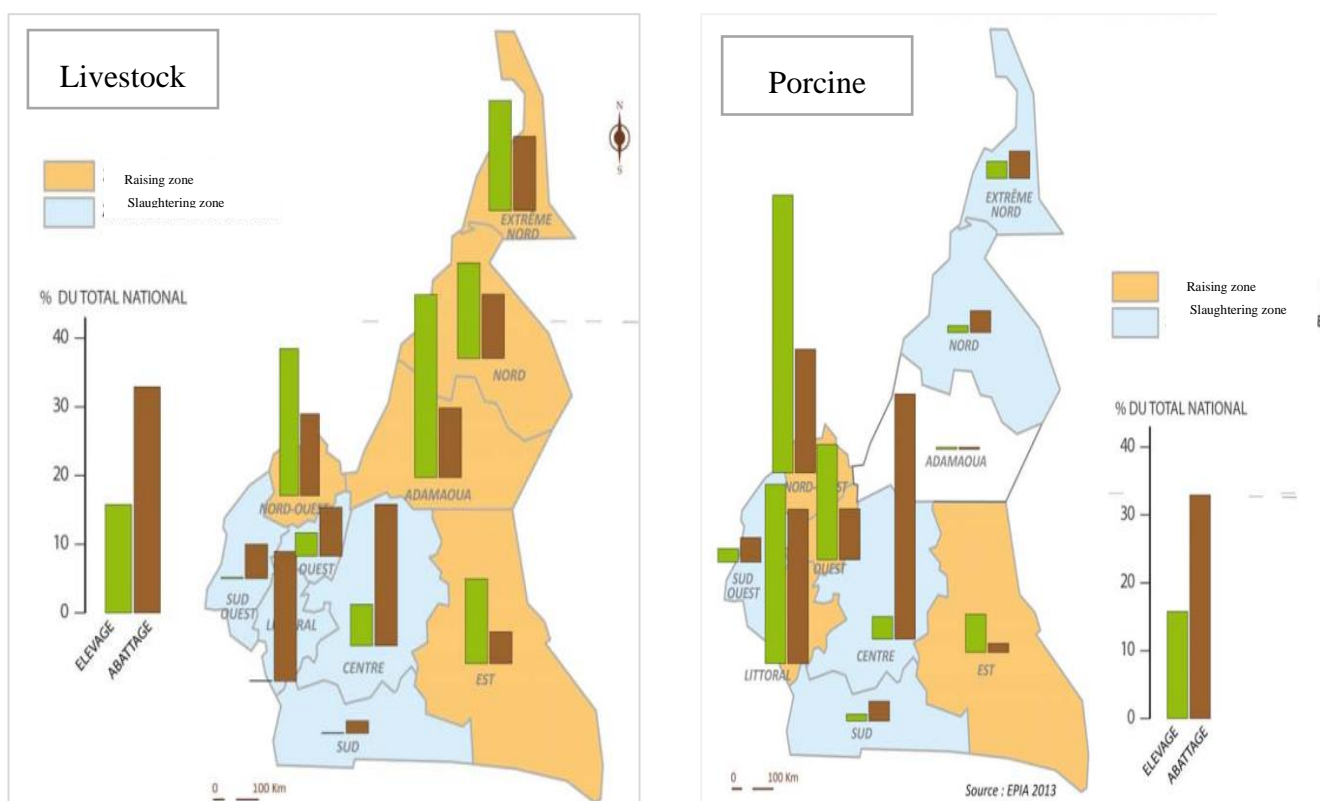
Cassava is mainly grown in the bi-modal forest zone.

4.11.3. Organization of animal production areas

Breeding is mainly practiced in localities where the climate is favorable and the type of feed is available. Thus, the breeding of cattle, sheep, goats, poultry and pigs meets this requirement.

The figure above shows the production and slaughter areas for cattle and pigs respectively.

Figure 18: Breeding and slaughtering areas for cattle and pigs



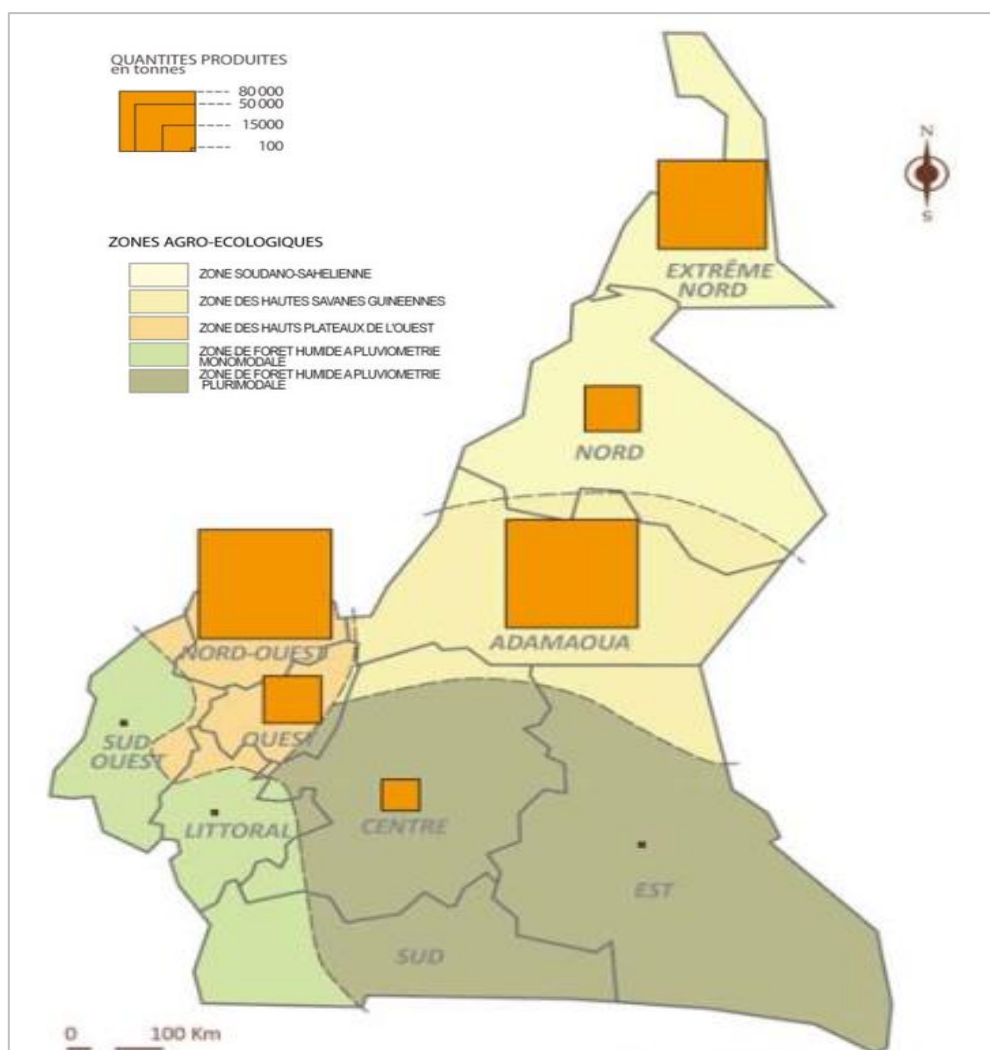
Source: MINEPAT

Cattle farming is mainly practiced in the Sahelian and high savannah areas, unlike pig farming which occupies the high plateau and mono-modal areas. Furthermore, slaughtering is not done exclusively in the production areas. The slaughter of these two species is mainly concentrated in the two major cities (Yaounde and Douala).

As for milk production, it comes mainly from the bovine species. Production is concentrated in the Sahelian, high savanah and highland areas of the West. More specifically in the Far North, Adamawa and North West regions.

The figure below locates the milk production zones according to the quantity produced.

Figure 19: Milk production basins in agro-ecological zones



4.11.4. Organization of fish production areas

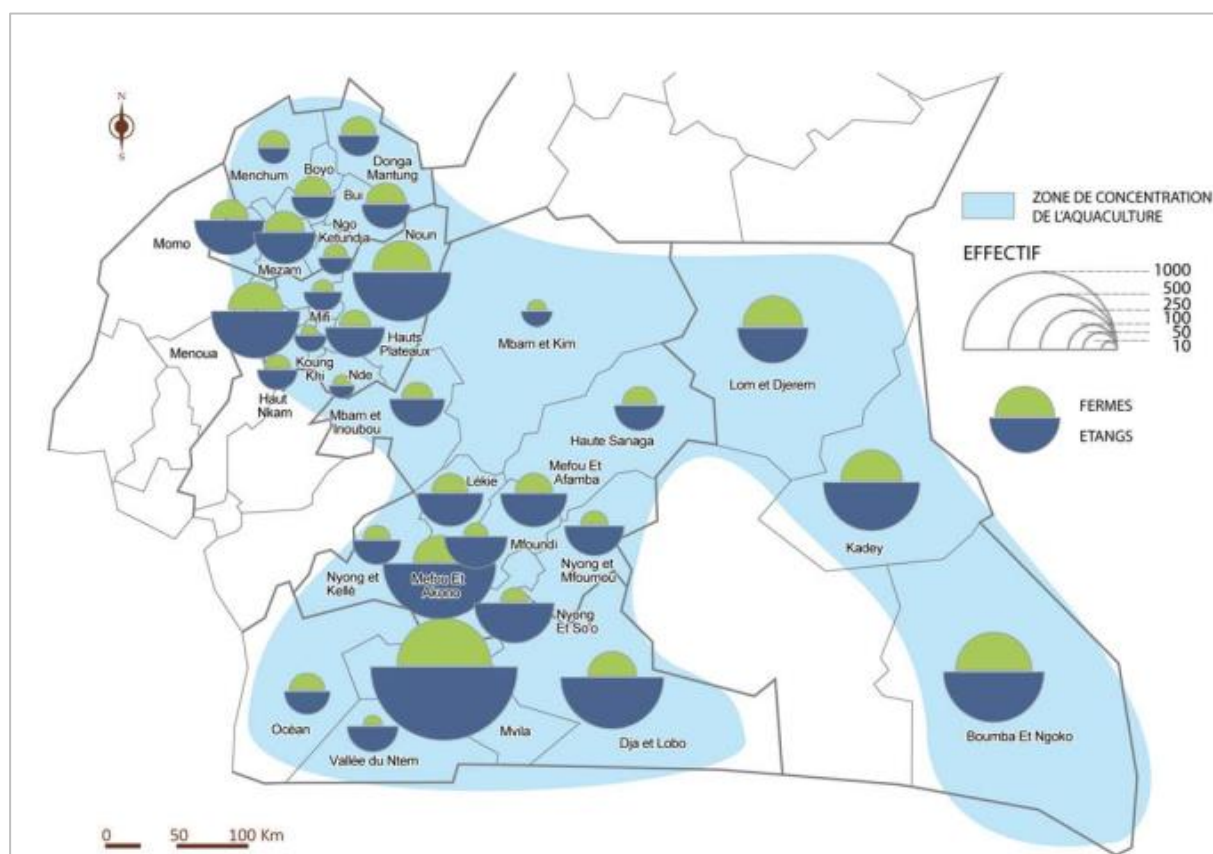
Cameroon has the advantage of being a territory traversed by numerous rivers which are for the most part favorable sites for fishing. Also, there has been a development of aquaculture activities in recent years.

Maritime fishing is concentrated at the level of the facade of Cameroon with the Atlantic Ocean, and river fishing is practiced in all regions of the country.

As far as fish farming is concerned, fingerlings are reared in farms and aquaculture ponds. The main areas with high production potential are the Western Highlands area, the monomodal forest area and the bimodal forest area.

The figure above gives a schematic representation of the production basins.

Figure 20: Main basins with high aquaculture production potential



Source: MINEPAT

PART III: ACTION PLAN AND MONITORING- EVALUATION MECHANISM

CHAPTER 5: ACTION PLAN FOR THE DEVELOPMENT OF THE AGRO-INDUSTRY SECTOR

For the period 2020-2030, Cameroon's ambition is to increase the quantity and quality of the production of agricultural products in order to ensure its food self-sufficiency, to supply the growing demand of national agro-industries for agricultural raw materials and to conquer international markets, particularly those of the ECCAS and ECOWAS sub-regions. This government objective is consistent with the two scenarios formulated. It is therefore a question of increasing the productivity and competitiveness of the Cameroonian agro-industry in order to make it stronger, more resilient and likely to provide well-being to the populations. The field of agro-industry is a powerful lever for achieving food security and self-sufficiency of populations, improving incomes, particularly in rural areas, and creating wealth and decent jobs. To this end, it is a question for the public authorities to place particular emphasis on actions to intensify production, processing, improvement of productivity and competitiveness of growth-enhancing and job-creating sectors. . The sectors in question have been identified in the SND3. These include the following sectors in particular: rice, maize, cocoa/coffee, sugar, palm oil, rubber, plantain, milk, sorghum, cassava, etc.

The objective of the agro-industrial sector being formulated as follows: **“Cameroonian agro-industry: A competitive field contributing to the creation of wealth, to inclusive growth in a sustainable environment. »**, three main strategic axes will guide the different actions to be carried out to achieve this. It is:

- (i) **Strategic Axis 1** : Development of the productive sectors of the agro-industry for the satisfaction of the domestic offer;
- (ii) **Strategic Axis 2**: Strengthening the competitiveness of the productive sectors of agro-industry on the external market;
- (iii) **Strategic Axis 3**: Development and consolidation of physical and cognitive infrastructures.


5. 1. Development of productive sectors of agro-industry for the satisfaction of domestic supply

The Cameroonian domestic supply that must be satisfied concerns both plant, animal and fish production. Many problems have been highlighted above highlighting the handicaps of producers and consumers in agro-industrial production chains. We can recall, among other


things, supply, technological and logistical constraints, difficult access to inputs and structural deficits. Two major strategic objectives are formulated to orient the actions which will allow to reach the satisfaction of the domestic offer. It's about:

Strategic objective 1.1: Pursue the modernization and structuring of the production apparatus in the field of agro-industry


To achieve this objective, actions by type of production are enacted. It's about:

 For agricultural productivity, the proposed actions are:

- Adoption of measures to facilitate access of smallholders of corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc. to land, logistical and financial resources;
- Promotion of second-generation agriculture in maize, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc. farms ;
- Support for the installation of new production and processing units for corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc.


 For animal production, the proposed actions are:

- Adoption of measures to facilitate access of small cattle farmers to land, logistics and financial resources;
- Strengthening the capacities of cattle farmers and dairy producers in the fight and prevention of zoonosis;
- Development and operationalization of structuring agro-industrial techno poles throughout the territory;
- Support for the installation of new cattle production and processing units


 For fish production, the proposed actions are:

- Adoption of measures to facilitate access of smallholders of fish and fishery products to land, logistics and financial resources;
- Promotion of off-ground production systems among young producers of fish and other fish products;
- Support for the installation of new production and processing units for fish and fishery products.


Strategic objective 1.2: pursue the regulation of the internal market

 For agricultural productivity, the proposed actions are:

- Creation of competitiveness clusters: territorial or sectorial clusters for corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc .;
- Improving the structuring of distribution channels for consumer products such as corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc .;

 For animal productivity, the proposed actions are:

- Creation of Competitiveness Poles: territorial or sectorial beef clusters;
- Improving the structuring of distribution channels for consumer products (beef, milk, etc.);

 For fisheries productivity, the actions proposed are:

- Creation of competitiveness clusters: territorial or sectorial fisheries clusters;
- Improving the structuring of distribution channels for consumer products (fish, shellfish, etc.);


5.2. Strengthening the competitiveness of the productive sectors of agro-industry on the external market

As mentioned in the diagnosis, Cameroon for the next few years has a double ambition. The first is to ensure its food self-sufficiency, to supply the growing demand of national agro-industries for agricultural raw materials and the second, to conquer international markets, particularly those of the ECCAS and ECOWAS sub-regions.


To this end, the development of commercial capacities and partnerships constitute essential weapons for the achievement of the above-mentioned objectives. In addition, Cameroon benefits from a position of a highly strategic geographical position. Cameroon is a junction between equatorial Africa in the South and tropical Africa in the North. Its large openness to the sea offers it many economic and commercial possibilities. Better than the other countries of the Central African sub-region, it benefits from climatic and natural conditions that are very favorable to breeding and fishing. This is arousing renewed interest on the part of economic operators for cross-border trade in various products from the plant, animal and fishery sectors, which indeed constitute an important source of income for the Cameroonian

populations. It is therefore a question of taking advantage of this geographical position of Cameroon in the Gulf of Guinea by putting in place measures that can increase the marketing of Cameroonian agro-industrial products both nationally and sub-regionally. . The actions to be implemented concern both the domestic market and the foreign market.


Strategic objective 2.1: Strengthen trade capacities and development of partnerships

 For agricultural productivity, the proposed actions are:

- Strengthening consultation frameworks between different actors (public authorities, technical and financial partners, civil society, private sector, etc.) in the corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil sectors , etc. ;
- Establishment of training institutes for entrepreneurs in commercial intelligence;


 For animal production, the actions envisaged are:

- Strengthening consultation frameworks between different actors (public authorities, technical and financial partners, civil society, private sector, etc.) in the beef sector ;
- Establishment of training institutes for entrepreneurs in commercial intelligence;


 For fish production, the actions envisaged are:

- Strengthening consultation frameworks between different actors (public authorities, technical and financial partners, civil society, private sector, etc.) in the fisheries sector ;
- Establishment of training institutes for entrepreneurs in commercial intelligence;


Strategic objective 2.2: promote exports by supporting and strengthening private sector institutions

 For agricultural productivity, the proposed actions are:

- Supervision of export companies;
- Promotion of Cameroonian products abroad;

 For animal production, the actions envisaged are

- Supervision of export companies;
- Promotion of Cameroonian products abroad

 For animal production, the actions envisaged are:

- Supervision of export companies;
- Promotion of Cameroonian products abroad


5.3. Development and consolidation of physical and cognitive infrastructures

The development of physical and cognitive infrastructures makes it possible in particular to ensure the opening up of industrial basins for the supply of raw materials and energy to factories, the flow of production to internal and external markets, and the transport of people so as to reducing operating costs and improving the competitiveness of national companies, as well as enhancing the country's attractiveness. The downstream of the domain of infrastructures being reserved for goods and services. The lack of infrastructure induces equally high production costs, which has the effect of reducing the price competitiveness of SMEs present in agro-industry. It is therefore important to sustainably lay the foundations for the competitiveness of SMEs present in the Cameroonian agro-industry, by strengthening infrastructure, determining factors in the competitiveness of SMEs.


Strategic objective 3.1: Development of energy infrastructure for agro-industrial emergence

 For agricultural production, the actions envisaged are:

- Capacity building of entrepreneurs in the recycling of agricultural waste;
- Promoting the use of renewable energy sources among farmers;

 For animal production, the actions envisaged are:

- Capacity building of entrepreneurs in the recovery of animal waste;
- Promotion of the use of renewable energy sources among stockbreeders;

 For fish production, the actions envisaged are:

- Capacity building of entrepreneurs in the recovery of animal waste;
- Promoting the use of renewable energy sources among fisheries.

Strategic objective 3.2: Develop coordinated actions between sub-sectors for agro-industrial emergence

- Promotion of coalitions between producers for the maintenance of rural roads and tracks;
- Put in place a policy to promote intellectual property;
- Grouping of economic operators into inter-professional organizations in the field of agro-industry;
- Improved supply chain performance in trade with the region (corridors) ECCAS + Nigeria;

- Improvement of the services of the Single Window for external operations (Electronic Window) external operations (Electronic Window);
- Establishment of an export promotion agency for agro-industrial products.

5.4. Promoting the consumption of local products

The diagnosis showed that the actors involved in the development of agro-industry face many constraints. We can note, among other things, supply, technological and logistical constraints, difficult access to inputs, human resources, etc. the Government, in collaboration with its partners, has opted for the sector-based approach based on better organization of the main actors at the level of each link (research, production, processing, marketing) with a view to increasing and securing income of all stakeholders. Given Cameroon's agro-ecological potential, the Government wants to stimulate sustainable growth in the field of agro-industry by developing plant, animal and fish production while preserving the related natural resources.

- **Strategic objective 4.1:** Improve competitiveness through standardization of local products
 - Capacity building for producers and processors of products (maize, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.) to comply with international standards and qualities ;
 - Support for producers and processors (corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.) for access to international standards and qualities;
 - Establishment of a national competition commission
- **Strategic objective 4.2:** Promotion of local products
 - Reinforcement of support for the organizers of food fairs;
 - Reinforcement of support for the organizers of periodic markets;
 - Facilitation of public-private partnership for the production and distribution of inputs necessary for the production of corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.

Table 47: Operational measures for the development of agro-industry

Operational axes	Operational objectives	Shares		Implementation costs (in millions of CFA francs)	Main players in the implementation
		Components	Actions to be taken		
Operational axis 1: Development of the productive sectors of the agro-industry for the satisfaction of the domestic offer	Operational objective 1: Pursue the modernization and structuring of the production system in the field of agro-industry	Vegetable production	Adoption of access facilitation measures for smallholders of corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc. land, logistical and financial resources	10,000	PRC, PM MINDCAF MINEPAT MINFI MINPMEESA MINADER MINDEVEL MINCOMMERCE API, APME BC-PME Traditional authorities CTD
			Promotion of second-generation agriculture in farms of maize, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc.	30,000	MINADER MINEPAT MINPMEESA MINMIDT Chamber of Commerce Chamber of Agriculture CTD
			Support for the installation of new production and processing units for corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc.	20,000	MINPMEESA MINFI MINEPAT MINADER CTD

		Animal production	Adoption of measures to facilitate access of small cattle farmers to land, logistics and financial resources	10,000	PRC, PM MINDCAF MINEPAT MINFI MINPMEESA MINEPIA MINCOMMERCE MINDEVEL API, APME BC-PME Traditional authorities CTD
			Strengthening the capacities of cattle breeders in the fight and prevention of zoonosis	30,000	MINEPIA MINPMEESA CTD
			Development and operationalization of structuring agro-industrial techno poles throughout the territory	50,000	PM MINEPAT MINMIDT MINPMEESA MINDCAF MINDEVEL MINADER CTD
			Support for the installation of new cattle production and processing units	20,000	MINPMEESA MINDCAF MINEPIA MINEPAT MINFI CTD

		Fish production	Adoption of measures to facilitate access of smallholders of fish and fishery products to land, logistics and financial resources;	10,000	MINDCAF MINPMEESA MINEPIA MINEPAT CTD
			Promotion of above-ground production systems among young producers of fish and other fish products	5,000	MINPMEESA MINEPIA MINEPAT CTD
			Support for the installation of new production and processing units for fish and fishery products	20,000	MINPMEESA MINDCAF MINEPIA MINEPAT CTD
	Operational objective 2: continue regulating the internal market	Vegetable production	Creation of competitiveness clusters: territorial or sectorial clusters for corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc.	2,000	PRC, PM MINEPAT MINFI MINPMEESA MINADER CTD
			Improving the structuring of distribution channels for consumer products such as corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, etc.	3000	MINCOMMERCE MINPMEESA MINADER CTD
		Animal production	Creation of Competitiveness Poles: territorial or sectorial beef clusters	2,000	PRC, PM MINEPAT MINFI MINPMEESA MINEPIA

					CTD
			Improving the structuring of distribution channels for consumer products (beef, milk, etc.)	2000	MINCOMMERCE MINPMEESA MINEPIA Chamber of Commerce CTD
			Promoting the consumption of local products	500	PRC, PM MINEPAT MINFI MINCOMMERCE MINADER MINEPIA MINPMEESA MINDEVEL CTD
		Fish production	Creation of competitiveness clusters: territorial or sectorial fisheries clusters	2000	PRC, PM MINEPAT MINFI MINPMEESA MINEPIA CTD
			Improving the structuring of distribution channels for consumer products (fish, shellfish, etc.)	500	MINCOMMERCE MINPMEESA MINEPIA Chamber of Commerce CTD

Operational axis 2: Strengthening the competitiveness of the productive sectors of agro-industry on the external market	Operational objective 1: Strengthen commercial capacities and development of partnerships	Vegetable production	Strengthening consultation frameworks between different actors (public authorities, technical and financial partners, civil society, private sector, etc.) in the corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil sectors , etc.	100	PM MINADER MINCOMMERCE MINEPAT MINFI MINDCAF MINPMEESA Private sector CTD
			Establishment of training institutes for entrepreneurs in commercial intelligence	500	MINEFOP MINPMEESA MINCOMMERCE CTD
		Animal production	Strengthening consultation frameworks between different actors (public authorities, technical and financial partners, civil society, private sector, etc.) in the beef sector	100	PM MINEPIA MINCOMMERCE MINEPAT MINFI MINDCAF MINPMEESA Private sector CTD
			Establishment of training institutes for entrepreneurs in commercial intelligence	500	MINEFOP MINPMEESA MINCOMMERCE CTD
		Fish production	Strengthening consultation frameworks between different stakeholders (public authorities, technical and financial partners, civil society, private sector, etc.) in the fisheries sector	100	PM MINEPIA MINCOMMERCE MINEPAT

					MINMIDT MINFI MINDCAF MINPMEESA Private sector CTD
			Establishment of training institutes for entrepreneurs in commercial intelligence	1,000	MINEFOP MINPMEESA MINCOMMERCE CTD
	Operational objective 2: promote exports by supporting and strengthening private sector institutions	Vegetable production	Coaching of export companies	150	MINPMEESA MINEPAT MINCOMMERCE
			Promotion of Cameroonian products abroad	450	MINPMEESA MINEPAT MINCOMMERCE MINREX
		Animal production	Coaching of export companies	150	MINPMEESA MINEPAT MINCOMMERCE
			Promotion of Cameroonian products abroad	450	MINPMEESA MINEPAT MINCOMMERCE
		Fish production	Coaching of export companies	150	MINPMEESA MINEPAT MINMIDT MINCOMMERCE

					MINPMEESA MINEPAT MINCOMMERCE
			Promotion of Cameroonian products abroad	450	MINPMEESA MINEPAT MINCOMMERCE Chamber of Commerce
Operational axis 3: Development and consolidation of physical and cognitive infrastructures	Operational objective 1: Development of energy infrastructure for agro-industrial emergence	Vegetable production	Capacity building of entrepreneurs in the recycling of agricultural waste	10,000	MINADER MINEPAT MINMIDT MINEPDED MINPMEESA MINEFOP MINFOF CTD
			Promoting the use of renewable energy sources among farmers	500	MINADER MINEPAT MINEPDED MINPMEESA MINEFOP MINED MINFOF CTD
		Animal production	Capacity building for entrepreneurs in the recovery of animal waste	10,000	MINEPIA MINEPAT MINMIDT MINEPDED MINPMEESA

					MINEFOP MINFOF CTD
			Promoting the use of renewable energy sources among breeders	500	MINEPIA MINEPAT MINEPDED MINPMEESA MINEFOP MINED MINFOF CTD
		Fish production	Capacity building of entrepreneurs in the recovery of fish waste	5,000	MINEPIA MINEPAT MINEPDED MINPMEESA MINMIDT MINEFOP MINFOF CTD
			Promoting the use of renewable energy sources among breeders	500	MINEPIA MINEPAT MINEPDED MINPMEESA MINEFOP MINFOF MINED CTD
	Operational objective 2: Develop	Plant, animal and fish production	Promotion of coalitions between producers for the maintenance of rural roads and tracks	1,000	MINTP MINEPIA MINADER

	coordinated actions between sub-sectors for agro-industrial emergence				MINPMEESA Private sector CTD
			Implement a policy to promote intellectual property	250	MINMIDT MINRESI MINEPIA MINADER MINPMEESA Private sector
			Grouping of economic operators in inter- professions in the field of agro-industry	2000	MINPMEESA MINMIDT MINADER MINEPIA Private sector
			Improved supply chain performance in trade with the region (corridors) ECCAS + Nigeria	5,000	MINCOMMERCE MINEPAT MINCAF MINMIDT MINFI DGSN MINDEF MINREX Private sector
			Improvement of the services of the Single Window for External Operations (Electronic Window)	250	MINCOMMERCE MINFI MINEPAT MINMIDT
			Establishment of an export promotion agency for agro-industrial products	500	PM MINCOMMERCE MINEPAT

					MINMIDT MINPMEESA MINADER MINEPIA
			Implementation of an e-commerce platform through the e-post infrastructure	400	MINCOMMERCE MINPOSTEL MINMIDT MINFI MINPMEESA Chamber of Commerce
Operational axis 4: Promotion of the consumption of local products	Operational objective 1: Improve competitiveness through the standardization of local products	Plant, animal and fish production	Capacity building for producers and processors of products (maize, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.) to comply with international standards and qualities ;	25,000	MINCOMMERCE MINPMEESA MINADER MINEPIA BMN ANOR LANACOME LANAVET
			Support for producers and processors (corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.) for access to international standards and qualities	10,000	MINEPAT MINFI MINMIDT MINPMEESA MINADER MINEPIA TFP
			Establishment of a national competition commission	810	PRC, PM MINEPAT MINMIDT MINCOMMERCE

					MINADER MINEPIA MINPMEESA GICAM INTER-PROFESSIONS
	Operational objective 2: Promotion of local products	Plant, animal and fish production	Reinforcement of support for the organizers of food fairs;	10,000	MINEPAT MINFI MINMIDT MINPMEESA MINADER MINEPIA TFP
			Strengthening support for the organizers of periodic markets	5,000	MINEPAT MINFI MINMIDT MINPMEESA MINADER MINEPIA CTD
			Facilitation of public-private partnership for the production and distribution of inputs necessary for the production of corn, wheat, rice, other cereals and semolina, coffee, tea, millet, sorghum, palm oil, meat, milk, fish, etc.	200	PM MINADER MINEPIA MINCOMMERCE MINEPAT MINMIDT MINFI MINDCAF MINPMEESA Private sector

					CTD
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CHAPTER 6: MONITORING-EVALUATION MECHANISMS AND RISKS RELATED TO THE IMPLEMENTATION OF THE STUDY

6.1. INSTITUTIONAL MECHANISM

At the end of the DSCE, Cameroon has had a new strategy document since 2020 which sets out the new global reference framework for the actions of the Government during the period 2020-2030, it is the National Strategy for Development 2020-2030 (SND30). To this end, efforts will be articulated primarily around the industrialization strategy, which constitutes the fundamental focus of this phase of the Vision.

For the monitoring and evaluation of the implementation of SND30, the Prime Minister Head of Government has set up an institutional mechanism, by Decree No. 2021/1541/PM of March 23, 2021 on the creation, organization and functioning of the National Committee monitoring and evaluation of the implementation of SND30.

The National Monitoring and Evaluation Committee (CNSE) is organized around a technical coordination unit which includes sectorial sub-commissions, including the «industries and services». The latter's main missions are to ensure the supervision, orientation, coordination, harmonization and supervision of work relating to the implementation of the sectorial strategy for industries and services.

Furthermore, the Industries and Services sub-commission is placed under the responsibility of a Coordinator and has a Technical Secretariat.

The study on "the structuring of SMEs in the agro-industrial sector" is part of the reforms and actions that should enable structural transformation to take place by significantly increasing the share of the secondary and manufacturing sector. To this end, the operationalization of the action plan of the said study involves several actors belonging not only to the sector of industries and services, but also to the sectors of the infrastructure, rural sectors, etc.

However, the monitoring of the implementation of the action plan of the study on "the structuring of SMEs in the agro-industrial sector" is the responsibility of the Ministry of Small

and Medium-Sized Enterprises, Social Economy and Handicrafts (MINPMEESA) insofar as the latter is responsible for the development, implementation and evaluation of the Government's policy for the development of Small and Medium-Sized Enterprises, the Social Economy and Handicrafts.

The monitoring-evaluation of the implementation of the Action Plan of the study on the structuring of SMEs in the agro-industry will make it possible to be informed in real time on the state of implementation of the activities, as well as on the consistency, effectiveness, efficiency and sustainability of planned interventions. It constitutes an essential element of the plan, in the sense that it guarantees its success.

6.2. MONITORING/EVALUATION ARRANGEMENTS

The monitoring/evaluation of the implementation of the action plan relating to the study on the structuring of SMEs in the agro-industrial sector must be done at all levels of responsibility based on the relevant indicators defined in the action plan. It relies on a bottom-up mechanism that should allow rapid feedback of reliable information collected at the base. In addition, it must help to develop a culture of permanent monitoring and to provide mechanisms for adjusting the plan in order to make it last over time.

In this context, participatory monitoring and evaluation will be given priority. Indeed, it allows the various stakeholders to consult regularly on the level of achievement of the planned activities and actions, the evaluation of the results and their consequences.

The main participatory monitoring and evaluation activities include the following main elements:

- The development of an integrated monitoring-evaluation plan (PISE), by the monitoring-evaluation committee. This document includes, among other things: the monitoring indicators selected by all the stakeholders, the timetable and the actors implementing the various activities;
- The permanent collection of information on the implementation of actions and activities;
- Periodic analysis of the data collected and production of the monitoring-evaluation report;
- Dissemination of the monitoring and evaluation report to all relevant stakeholders.

6.3. MONITORING/EVALUATION TOOLS

The tools are the soul of the monitoring-evaluation system and essential for monitoring the progress of the indicators formulated. The following tools are distinguished:

6.3. 1. For tracking

- Activity monitoring sheets (one sheet per activity). They must be regularly informed by the managers involved;
- Follow-up sheets for funding requests from partners (one sheet per request). It makes it possible to periodically take stock of the status of a request transmitted to a resource provider and the results obtained;
- The dashboard of priority action plan indicators;
- Reports and minutes of meetings presented according to a standard framework agreed upon;

6.3.2. For the evaluation

- The logical framework: it presents the intervention logic in the form of a conceptual diagram which makes it possible to arrive at a precise formulation and a uniform understanding of the said plan;
- Half-yearly, annual or mid-term reviews of the implementation of the study's operational action plan;
- Surveys, field visits and control of achievements;
- The annual schedule of activities resulting from micro-planning at the level of each executing actor of actions and activities;
- Periodic monitoring and evaluation reports on the implementation of the strategic plan. These should include, among other things, the context, the state of implementation of the activities, the problems and difficulties, the possible adjustments to be recommended, and the prospects to be considered.

Overall, there are two modes of evaluation, (i) the internal evaluation carried out by MINPMEESA with the people directly involved in the implementation of the action plan of the study, and (ii) the external evaluation carried out by an external structure or independent consultants in order to provide a neutral perspective. At the end of this exercise, an evaluation report is drawn up. As an indication, it contains the following elements: the context, information on the activities carried out, the effects or impacts of the strategic plan, the difficulties and

solutions recommended, the recommendations for the reorientation of the actions provided for in the plan.

Furthermore, the fluidity of the flow of information and communication between the various internal actors involved in the implementation of the study's action plan must be decisive for the effective management of the monitoring-evaluation system. In this regard, those responsible for implementing the said priority action plan must ensure a good flow of information between the stakeholders in the process. Modern means of communication must be favored to achieve this.

6.4. RISKS RELATED TO THE IMPLEMENTATION OF THE STUDY

The implementation of the operational actions of the agro-industry is subject to a set of risks and uncertainties likely to have a negative influence on the achievement of the objectives of the field. It can be uncertain situations, more or less foreseeable dangers, risky bets, etc. Among these risks, we can cite the lack of coordination between the various actors, the weak intra and inter-sector coherence, the security crisis in the Far North, North West and South West regions, the international economy, etc.

- **Lack of coordination between actors:** The implementation of actions relating to the study on the structuring of agro-industrial SMEs involves several stakeholders from various sectors (Industries and Services, rural, Infrastructure, governance, etc.). This situation requires a certain synergy between the different actors involved, not only for better coordination of interventions, but also for more intra- and inter-sectorial coherence. A lack of coordination between the different members is likely to have a negative influence on the achievement of the objectives set in the field.
- **Security crisis in the Far North, North West and South West regions:** Cameroon has been facing insecurity in three regions for several years. These security crises require the mobilization of human, material and financial resources. This therefore constitutes a shortfall for the public authorities, particularly in financial terms. This situation can therefore negatively affect the operationalization of the actions formulated within the framework of the structuring of SMEs and therefore on the achievement of the objectives set in the field of agro-industry.

- **International economic situation:** The international economy has suffered shocks since 2022 following the conflict between Russia and Ukraine. This situation has effects on the processing, import and export of foodstuffs such as wheat, rice, etc. in many partner countries such as Cameroon. The increase in these flagship products necessary for the production of foods such as bread has positively contributed to boosting the use of substitute flours such as cassava for the production of bread. Thus this situation of economic situation can make it possible to give a better visibility to the products with comparative advantage and to reduce the imports to achieve the objectives of the sector of the agro-industry by 2030.

CONCLUSION

The National Development Strategy 2020-2030 (SND30) has identified nine (09) priority sub-sectors to be developed to lead the country to industrialization by 2030. The agro-industry sub-sector aims to main objective to increase the quantity and quality of the production of agricultural products in order to ensure food self-sufficiency and to supply the growing demand of national agro-industries for agricultural raw materials and to conquer international markets. This is in fact the promotion of the " *import/substitution mix and promotion of exports* " through actions specifically aimed at (i) considerably reducing poverty in rural areas through increased productivity through the intensification of activities agro-industrial and modernization of agricultural activities driven by demand from agro-food industries; (ii) increase the production and competitiveness of agricultural products; (iii) structure and build the capacity of actors in the sector by encouraging the creation in the production basins of cooperative development societies, the establishment of an adequate financing system for agriculture and the development of new methods of financing agriculture such as warrantee.

By definition, agro-industry takes into account the branches of manufacturing industry that supply and/or serve agriculture, including livestock and fishing. Thus, in accordance with the objectives of structural transformation through the promotion of the import/substitution mix and the promotion of exports, it was a question of identifying the actions to be taken to increase the production and productivity of SMESEHS in the agro sector. -industrial.

To achieve this objective, one of the prerequisites was the conceptualization and delimitation of the agro-industry sub-sector into three (03) components: (i) plant industrial production, (ii) animal industrial production and (iii) industrial fish production. This segmentation served as a basis for the presentation of the inventory of fixtures of the agro-industry sub-sector in Cameroon which focused on the socio-demographic and socio-economic situations of the sub-sector, the description of supply in the agro-industrial sub-sector and to the diagnosis of the sub-sector which focused on the identification of strengths and weaknesses, threats and opportunities, and the analysis of the major problems facing the sub-sector confronted.

Subsequently, a profiling of the agro-industry sub-sector was carried out. It made it possible to estimate the evolution of the potential agro-industrial GDP expected until 2030. The

catch-up growth rate is projected at 12% by 2030. This materializes the importance that must be given to the agribusiness sub-sector for the structural transformation of the economy. With regard to the development of a few priority products for the import-substitution process, which products weigh down the trade balance, we can cite the palm oil sector (respectively husked seed rice), an additional production of 42,996.03 tons is expected in 2025 and 211,464.6 tons in 2030 (respectively 41,253.9 tons in 2025 and 202,844.88 tons in 2030). As for fishery and aquaculture products, an additional 25,626.71 tons are to be produced in 2025 and 125,995.36 tons in 2030. To reach these production levels, during the first years (2022 - 2026), actions should be taken to improve the production capacities of existing production units and by 2030, install new industrial companies (i.e. four (04) for the production of palm oil and fish each).

To achieve these growth and production objectives concerning the agro-industrial sector, four (04) major operational guidelines have been identified: (i) modernization and structuring of the production apparatus, (ii) the development and consolidation of physical and cognitive infrastructure, (iii) the strengthening of trade capacity and the development of partnerships, and (iv) the development and strengthening of private sector support institutions.

Thus, as public support policies for the development of the agro-industry sub-sector with a view to the structural transformation of the economy, the following measures are proposed:

- The development of agro-industrial production sectors to satisfy domestic supply: this involves continuing the modernization and structuring of the production apparatus in the field of agro-industry, as well as the regulation the internal market;
- Strengthening the competitiveness of agro-industrial production sectors on the external market: the focus should be on improving trade capacities, developing partnerships, promoting exports through support and strengthening private sector institutions;
- The promotion of the consumption of local products through the improvement of competitiveness through the standardization of these products.

BIBLIOGRAPHY

World Bank (2017), *Enabling the Business of Agriculture 2017*;

United Nations Economic Commission for Africa (2017), *Industrialization and Urbanization for Africa's Transformation Economic Report on Africa 2017*;

ECA, AfD and AUC (2017), *African Statistical Yearbook*. ;

Denis Pompidou Folefack (2010), *Coordination of actors in a context of crisis: the case of the cotton sector in Cameroon since 1990*, HAL;

DJOUMESSI, FY, BIDOGEZA, JC, KAMDEM, BC and AFARI-SEFA , *Socio-economic and institutional factors underlying efficiency of smallholder vegetable farms in the Southwest region of Cameroon* , International Journal of Social Economics V. 2017., In Press ;

Eric NDJOGUI, Raymond NKONGHO, ABOUBAKAR Hayatou Iyabano, Laurène FEINTRENIE (2015), *Diagnosis of the olive sector in Cameroon*, CIRAD;

FAO (2017) *database collections Food and Agriculture Organization of the United Nations (FAOSTAT)*;

IFAD (2014), *Portfolio Strategy 2015-2019*;

Folefack POMPIDOU (2014), *Boosting local rice production to strengthen food security in Northern Cameroon*, Journal of Applied Biosciences;

Francine PICARD, Mohamed COULIBALY, Carin SMALLER (2017), *The Emergence of Agricultural Growth Poles in Africa*, IISD;

Guillaume Hensel FONGANG FOUPE, Achille BIKOI, Denis Pompidou FOLEFACK, Idriss TIECHE and Pascal NOUPADJA (2019), *Socio-economic analysis of the plantain marketing system in the West Cameroon region* , International Journal of Biological and Chemical Sciences;

Isabelle NKAPNANG DJOSSI (2011), *Identification and optimization of the conditions of appropriation of innovations on banana trees and plantains by producers in Cameroon*, University of Louvain;

Jacob KOTCHO BONGKWAHA, Séverin NGUEDJIO, Jean Charles TSOGNIA YANZEU (2006), *Dairy industry in Cameroon*, ACDIC;

James E. Austin (1981), *the Analysis of Agribusiness Projects*, Economica;

Jean-Louis FUSILLIER (1993), *the maize sector in Cameroon: what prospects for the development of maize production*, CIRAD;

Junie Albine ATANGANA KENFACK, Christian DUCARME and Jean-Claude MICHA (2019), *Fish farming in Cameroon: assessment and prospects*, International Journal of Biological and Chemical Sciences;

KOA BESSALA, PP, AMBAGNA, JJ, KANE, GQ (2017), *Women land tenure security and agricultural investment in rural Cameroon*. In: PIOT-LEPETIT, I. (ed.), and *Cameroon in the 21st Century*;

LEBAILLY Philippe, TENTCHOU Jean (2009), *Study on the “oil palm” job- creating sector*, OIT;

MINADER (2009), *National Strategy for the Development of Rice Cultivation in Cameroon*;

MINADER (2015), *Strategy for the development of the plantain sector in Cameroon*;

MINEPAT (2019), *OVERVIEW and diagnosis of the industries and services sector*;

MINEPAT (2019), *Cameroon Industrialization Master Plan*;

MINEPAT (2020), *Plan, national support for consumption and production*;

MINEPAT (2020), *National Development Strategy 2020-2030*;

Ondoa Manga Tobie (2006), *Analysis of agricultural policies implemented in Cameroon since 1960*;

UNIDO (2011), *Diagnostic of the industrial chain of value: an integrated tool*;

UNIDO (2016), *Manufacture Value Added (2010 USD). United Nations Industrial Development Organization*;

Oumarou NJIFONJOU (1996), *Evolution of fish imports following the devaluation of the CFA franc and its impact on local Cameroonian production*, Limbe Fisheries and Oceanographic Research Center;

P. GENER (1990), *Mission report to Cameroon Feasibility study of a project to strengthen research applied to rubber growing in Cameroon*, IRCA;

Patrice DJAMEN NANA (2008), *Territory, sector and time: methods and challenges of market integration of cattle breeding systems in northern Cameroon*, AGROPARISTECH and University of Dschang;

RESAKSS (2017), RESAKSS data base collection. *Regional Strategic Analysis and Knowledge Support System*;

TAKAM FONGANG, GM (2016), *Impact of the adoption of improved maize varieties on yield in the Center region of Cameroon*, Faculty of Economics and Management, University of Yaoundé II;

Thierry MICHELS (2005), *Adapting the management of rubber plantations to the diversity of village farms (Case study in Cameroon)*, CIRAD;

Thomas Eric NDJOGUI, Raymond Ndip NKONGHO, Sylvain RAFFLEGEAU, Laurene FEINTRENIE, Patrice LEVANG (2014), *History of the oil palm sector in Cameroon* , CIFOR;

Valantine ACHANCHO (2013), *Review and analysis of national investment strategies and agricultural policies in Central Africa: Case of Cameroon*, FAO;

WDI 2017. *World Development Indicators*, World Bank;

Zelakwa MAGUINA (2013), *Report on agro-industries in the development of rural areas and in development strategies in Cameroon: the case of SOSUCAM*, CIRAD.

APPENDICES

Appendix 1: Estimation of ARMA model 1 (2.7)

Dependent Variable: HPTREND01

Method: ARMA Maximum Likelihood (OPG - BHHH)

Date: 08/03/22 Time: 12:30

Sample : 2005Q1 2021Q4

Included sightings: 68

Failure to improve objective (non-zero gradients) after 19 iterations

Covariance coefficient computed using outer product of gradients

Variable	Coefficient	Standard. Error	t - Statistics	Prob.
VS	226.4565	16.66906	13.58544	0.0000
AR(1)	1.999123	0.000885	2258.849	0.0000
AR(2)	-0.999664	0.000884	-1130.229	0.0000
MA(1)	2.075110	0.407391	5.093663	0.0000
MA(2)	2.258271	0.420027	5.376485	0.0000
MA(3)	1.900118	0.452992	4.194595	0.0001
MA(4)	1.723898	0.374261	4.606141	0.0000
MA(5)	1.847566	0.468040	3.947455	0.0002
MA(6)	1.479888	0.398737	3.711441	0.0005
MA(7)	0.635697	0.282589	2.249544	0.0284
SIGMASQ	2.24E-05	1.19E-05	1.879936	0.0652
R-squared	1.000000	Average dependent var		207.7778
Adjusted R - squared	1.000000	SD dependent var		43.13222
				-
SE of regression	0.005173	Akaike info criterion		6.936618
				-
Sum squared reside	0.001526	Schwarz criterion		6.577580
				-
Log -likelihood	246.8450	Hannan -Quinn Criter .		6.794356
F- statistic	4.66E+08	Durbin-Watson stat		1.918961
Prob(F- statistic)	0.000000			
Inverted AR Roots	1.00-.02i	1.00+.02i		
Inverted MA Roots	.56-.75i	.56+.75i	-.36+.88i	-.36-.88i
	-.74+.52i	-.74-.52i	-1.00	

Appendix 2: Unit root test of ARMA model 1 residuals (2.7)

Null Hypothesis: RESID01 has a unit root

Exogenous: None

Lag Length: 0 (Automatic - based on SIC, max lag =10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.871945	0.0000
Critical values test:		
1% level	-2.599934	
5% level	-1.945745	
10% level	-1.613633	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RESID01)









































Method: Least Squares

Sample (adjusted): 2005Q2 2021Q4

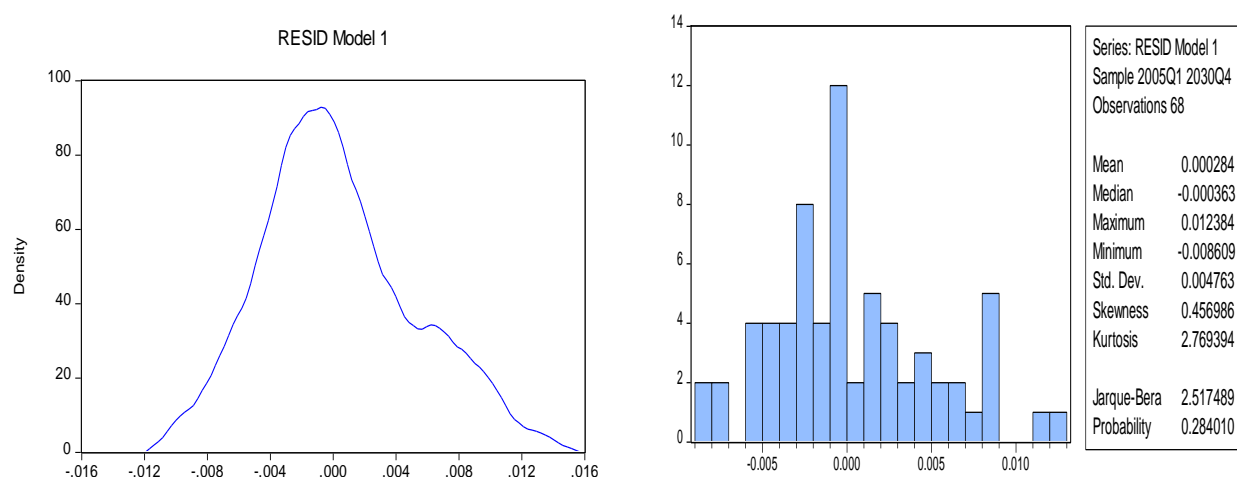
Included comments: 67 after adjustments

Variable	Coefficient	Standard. Error	t-Statistic	Prob.
RESID01(-1)	-0.965885	0.122700	-7.871945	0.0000
R-squared	0.484240	Mean dependent var		1.90E-05
Adjusted R-squared	0.484240	SD dependent var		0.006660
SE of regression	0.004783	Akaike info criterion		-7.832707
Sum squared resid	0.001510	Schwarz criterion		-7.799801
Log-likelihood	263.3957	Hannan-Quinn Criter .		-7.819686
Durbin-Watson stat	1.985829			

Appendix 3: Correlograms of the residues of model 1 ARMA (2.7)

Sample: 2005Q1 2030Q4						
Included observations: 68						
Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	0.029	0.029	0.0610	0.805
		2	0.107	0.106	0.8819	0.643
		3	0.215	0.212	4.2785	0.233
		4	0.258	0.255	9.2381	0.055
		5	0.164	0.148	11.273	0.046
		6	-0.080	-0.177	11.769	0.067
		7	0.076	-0.086	12.220	0.094
		8	-0.004	-0.139	12.221	0.142
		9	-0.049	-0.101	12.414	0.191
		10	-0.231	-0.234	16.801	0.079
		11	-0.270	-0.309	22.910	0.018
		12	0.062	0.098	23.240	0.026
		13	-0.170	0.072	25.728	0.018
		14	-0.254	-0.001	31.409	0.005
		15	-0.194	-0.024	34.791	0.003
		16	-0.004	0.076	34.793	0.004
		17	-0.065	0.031	35.188	0.006
		18	-0.154	0.005	37.433	0.005
		19	-0.043	-0.049	37.611	0.007
		20	0.135	0.100	39.420	0.006

Appendix 4: Density curve and normality test of the residuals of the ARMA model 1 (2.7)



Appendix 5: Estimation of model 2 AR (7) with trend

Dependent Variable: HPTREND01
Method: ARMA Maximum Likelihood (OPG - BHHH)
Date: 08/03/22 Time: 12:32
Sample : 2005Q1 2021Q4
Included sightings: 68
Convergence achieved after 28 iterations
Covariance coefficient computed using outer product of gradients

Variable	Coefficient	Standard. Error	t Statistics	Prob.
VS	146.1863	2.592442	56.38943	0.0000
@TREND	1.912961	0.062670	30.52443	0.0000
AR(1)	3.577051	0.001994	1793.639	0.0000
AR(2)	-5.401292	0.002788	-1937.620	0.0000
AR(3)	5.043483	0.003028	1665.559	0.0000

AR(4)	-3.334706	0.007771	-429.1317	0.0000
AR(5)	0.901778	0.016065	56.13289	0.0000
AR(6)	0.566899	0.007436	76.23700	0.0000
AR(7)	-0.354082	0.001734	-204.2341	0.0000
SIGMASQ	1.25E-05	2.62E-06	4.770412	0.0000
R -squared	1.000000	Average dependent var		207.7778
Adjusted R - squared	1.000000	SD dependent var		43.13222
SE of regression	0.003825	Akaike info criterion		-7.675243
Sum squared reside	0.000849	Schwarz criterion		-7.348844
Log -likelihood	270.9583	Hannan -Quinn Criter .		-7.545914
F- statistic	9.47E+08	Durbin-Watson stat		1.913257
Prob(F- statistic)	0.000000			
Inverted AR Roots	1.00-.07i .05-.95i	1.00+.07i .05+.95i	.95+.26i -.41	.95-.26i

Appendix 6: Unit root test of the residuals of the 2 AR model (7) with trend

Null Hypothesis: RESID02 has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, max lag =10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.778650	0.0000
Critical values test:		
1% level	-2.599934	
5% level	-1.945745	
10% level	-1.613633	

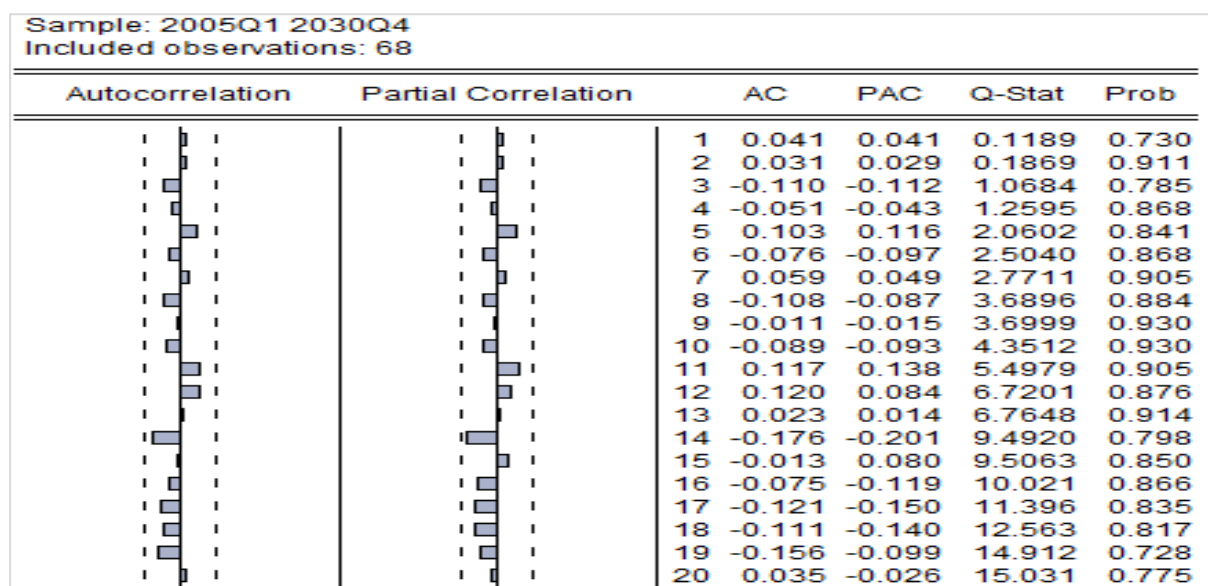
*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RESID02)
Method: Least Squares

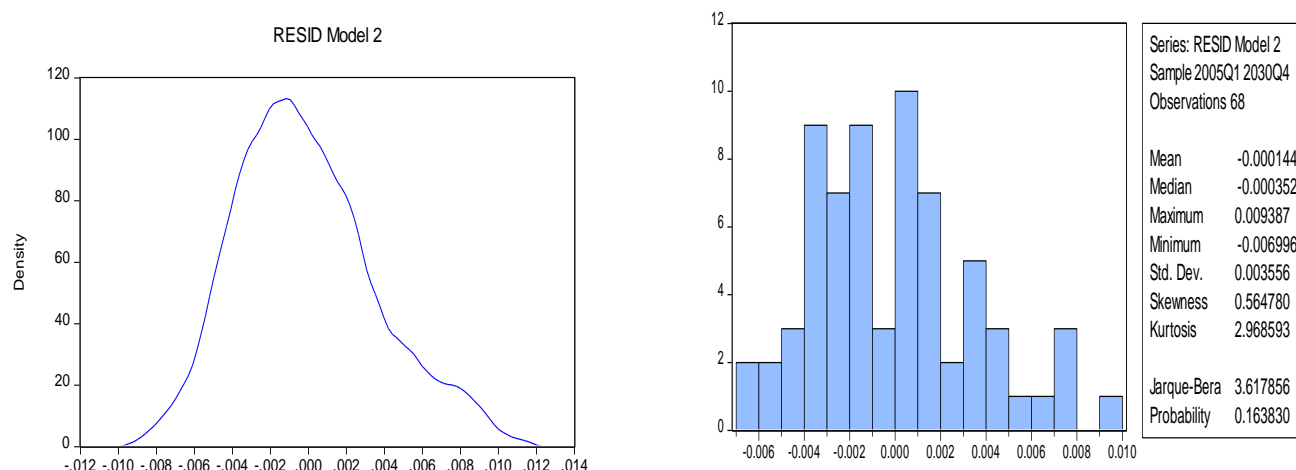
Sample (adjusted): 2005Q2 2021Q4
Included comments: 67 after adjustments

Variable	Coefficient	Standard. Error	t-Statistic	Prob.
RESID02(-1)	-0.957578	0.123103	-7.778650	0.0000
R-squared	0.478281	Mean dependent var		-2.24E-05
Adjusted R-squared	0.478281	SD dependent var		0.004960
SE of regression	0.003582	Akaike info criterion		-8.410826
Sum squared resid	0.000847	Schwarz criterion		-8.377920
Log-likelihood	282.7627	Hannan-Quinn Criter .		-8.397805
Durbin-Watson stat	1.970471			

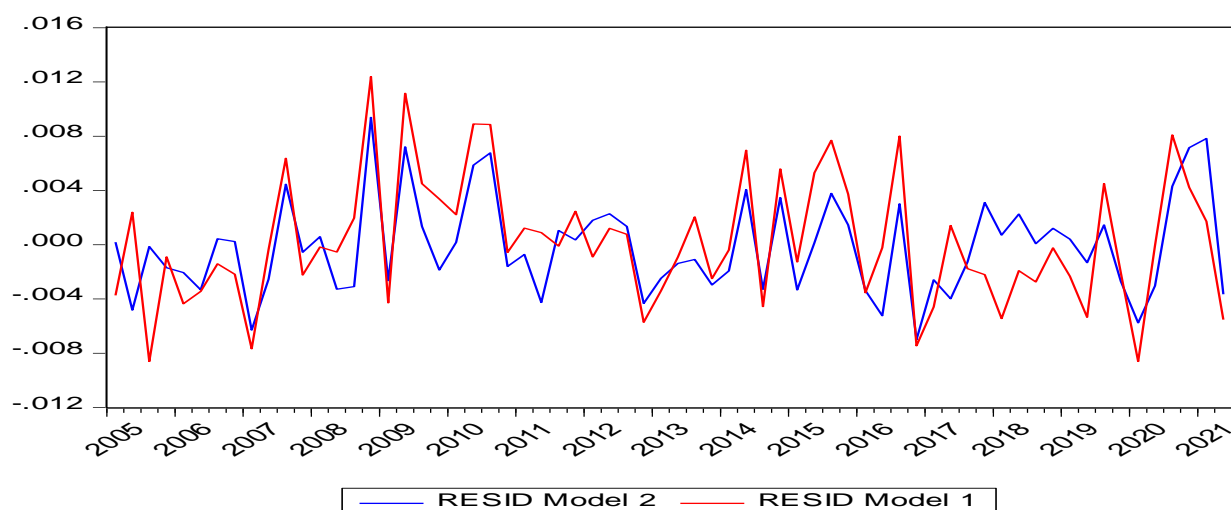
Appendix 7: Correlograms of residuals from model 2 AR (7) with trend



Appendix 8: Density curve and normality test of the residuals of the 2 AR model (7) with trend



Appendix 9: Residuals from model 1 and model 2



Appendix 10: Evolution of the GDP Gap of agro-industry from 2022 to 2030 (in billions FCFA)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
SND 30 catch-up real GDP	1052	1089	1134	1190	1259	1343	1445	1567	1713	1888	2097	2348
Trend Real GDP	1052	1089	1134	1153	1184	1212	1237	1260	1279	1295	1308	1317
GAP	0	0	0	36	75	131	208	307	434	593	789	1031

Source: MINEPAT

Appendix 11: Classification of agro-industrial processing products according to their importance

Product	Weight in 2022 (in %)	Weight in 2030 (in %)	Average weight between 2022 and 2030 (in %)	Rank
Beer	16.85	17	17.17	1
Fresh, smoked or dried game	15.14	13.99	13.52	2
<u>Donut of any kind *</u>	6.22	6.27	6.33	3
Crude palm oil	6.02	6.08	6.14	4
Bread and fresh pastry	4.76	4.79	4.84	5
Milk, butter and ice cream	4.74	4.78	4.83	6
Inland Fisheries and Aquaculture Products	3.72	3.76	3.8	7
Corn flour	3.41	3.75	3.58	8
Husked seed rice	3.51	3.53	3.57	9
Craft alcoholic beverages	3.23	3.24	3.28	10
Sugar and molasses	2.91	2.94	2.97	11
Other crude oils	2.76	2.78	2.81	12
Chocolate, confectionery and chocolate-based preparations	2.2	2.22	2.25	13
Soft drinks and mineral waters	2.2	2.21	2.24	14
Meals	1.97	1.99	2.01	15
Wheat flour (wheat)	1.81	2	1.91	16
Flour of other cereals and semolina	1.81	1.83	1.87	17

Starch hydrolysis products	1.82	1.83	1.85	18
Refined palm oil	1.68	1.7	1.72	19
Mass cocoa	1.5	1.51	1.53	20
Biscuits and rusks	1.35	1.36	1.37	21
Cassava stick (ebobolo , miondo , mintoumba)	1.21	1.22	1.23	22
Fresh fish	1.2	1.21	1.23	23
Condiments, seasonings and miscellaneous food products	1.17	1.17	1.18	24
Butter and cocoa powder	1.05	1.06	1.07	25
Feed and other animal feed	0.97	0.96	0.97	26
Pasta	1.03	1.04	0.94	27
Other refined oils	0.72	0.72	0.73	28
Modern alcoholic beverages	0.59	0.58	0.59	29
Fruit and vegetable juices	0.54	0.54	0.55	30
Roasted coffee; coffee products	0.51	0.52	0.53	31
Crustaceans and other fish products	0.46	0.47	0.47	32
Malt	0.32	0.32	0.33	33
Margarine and various fats	0.25	0.26	0.26	34
Livestock support services	0.22	0.2	0.19	35
Conditioned tea	0.16	0.16	0.16	36
Total	100	100	100	

* Donuts of all kinds; these are donuts made from cassava flour, wheat, corn , plantain, rice...

Source: MINPMEESA

Appendix 12: Evolution of production (in millions FCFA) and classification of agro-industrial raw materials according to their importance between 2022 and 2030

Product	Production 2022	Production 2023	Production 2024	Production 2025	Production 2026	Production 2027	Production 2028	Production 2029	Production 2030	Weight 2022 (in %)	Weight 2030 (in %)	Average weight between 2022 and 2030 (in %)	Rank
Dried cocoa bean	431,983	443 744	455 505	467 266	479,027	490,788	502 549	514 310	526,071	15.27	13.92	14.54	1
Dried corn seed	390,075	412 642	435 208	457,775	480 342	502 908	525 475	548,042	570 608	13.79	14.83	14.35	2
Live cattle and raw cow's milk	272,758	287 181	301 604	316,027	330 450	344,873	359 296	373,719	388 142	9.64	10.11	9.9	3
Millet and Sorghum	258,504	273,459	288 414	303 369	318 324	333,279	348 234	363 189	378 144	9.14	9.83	9.51	4
fresh cassava	178,830	184,942	191,054	197 166	203 278	209 390	215,502	221,614	227,726	6.32	6	6.15	5
Peanuts seeds	150,062	159,840	169,618	179,395	189 173	198,951	208 728	218,506	228 284	5.31	5.91	5.63	6
paddy rice	119,343	126 247	133 151	140,055	146,959	153,864	160,768	167,672	174,576	4.22	4.54	4.39	7
Local leafy greens and mushrooms	123,081	128,503	133,925	139,346	144,768	150 190	155,612	161,033	166,455	4.35	4.36	4.35	8
Other tubers	89,423	92,479	95,535	98,592	101,648	104 704	107,760	110,817	113,873	3.16	3	3.07	9
Plantain bananas	85 131	88,269	91,406	94,543	97,681	100,818	103,955	107,093	110 230	3.01	2.9	2.95	10
Macabo and Taro	84,556	87,446	90,336	93,226	96 116	99,006	101,896	104,786	107,676	2.99	2.84	2.91	11
Live poultry and eggs	85,720	87,445	89 170	90,895	92,620	94,345	96,070	97,795	99,521	3.03	2.65	2.82	12
Sweet bananas	80,946	83,929	86,912	89,895	92,878	95,862	98,845	101,828	104,811	2.86	2.76	2.8	13
Sheep, goats and raw milk	77,308	78,863	80,419	81,975	83,531	85,087	86,642	88 198	89,754	2.73	2.39	2.55	14
other legumes and pulses	71,216	74,353	77,490	80,627	83,764	86,901	90,038	93 175	96,313	2.52	2.52	2.52	15
dry beans and cowpeas	67,418	70,387	73,357	76,327	79,297	82,266	85,236	88 206	91 176	2.38	2.39	2.39	16
Spices and condiments	51,449	53,716	55,982	58,249	60,515	62,781	65,048	67,314	69,580	1.82	1.82	1.82	17
palm nuts	39,864	42,461	45,058	47,656	50,253	52,851	55,448	58,046	60,643	1.41	1.57	1.5	18
Live pigs	37,571	38,327	39,083	39,839	40,595	41,351	42 107	42,864	43,620	1.33	1.16	1.24	19
Other oilseed plants	25,813	27,495	29,176	30,858	32,540	34,222	35,904	37,586	39,268	0.91	1.02	0.97	20
Dried cassava	15,620	16,154	16,688	17,222	17,755	18,289	18,823	19,357	19,891	0.55	0.52	0.54	21

Product	Production 2022	Production 2023	Production 2024	Production 2025	Production 2026	Production 2027	Production 2028	Production 2029	Production 2030	Weight 2022 (in %)	Weight 2030 (in %)	Average weight between 2022 and 2030 (in %)	Rank
parchment Arabica coffee	15,452	15,458	15,464	15,470	15,477	15,483	15,489	15,495	15,501	0.55	0.42	0.48	22
Dried Robusta coffee	13,588	13,593	13,598	13,604	13,609	13,614	13,620	13,625	13,631	0.48	0.37	0.42	23
Other cultivated products nec. and agricultural support services	11,205	11,753	12,302	12,851	13,400	13,949	14,497	15,046	15,595	0.4	0.41	0.4	24
Sugar cane	8,717	9,144	9,571	9,998	10,425	10,852	11,279	11,706	12,133	0.31	0.32	0.31	25
Beekeeping products (natural honey, beeswax and royal jelly)	9,214	9,399	9,584	9,770	9,955	10,141	10,326	10,511	10,697	0.33	0.28	0.3	26
Kola nuts, Bitter Kola, other narcotics nec .	5,896	6,185	6,474	6,762	7,051	7,340	7,629	7,917	8,206	0.21	0.21	0.21	27
Other fruits	5,596	5,762	5,929	6,096	6,262	6,429	6,595	6,762	6,929	0.2	0.18	0.19	28
Aromatic or medicinal plants	5,263	5,521	5,778	6,036	6,294	6,552	6,809	7,067	7,325	0.19	0.19	0.19	29
Raw tobacco including prepared tobacco	4,761	4,994	5,227	5,460	5,694	5,927	6,160	6,393	6,626	0.17	0.17	0.17	30
Other Cereals	3,995	4,226	4,457	4,689	4,920	5,151	5,382	5,613	5,844	0.14	0.15	0.15	31
Horses, donkeys and other live farmed animals	4,125	4,208	4,291	4,374	4,457	4,540	4,623	4,706	4,789	0.15	0.13	0.14	32
Wheat (soft and hard)	1,927	2,038	2,150	2,261	2,373	2,484	2,596	2,707	2,819	0.07	0.07	0.07	33
Citrus	1,646	1,695	1,744	1,793	1,842	1,891	1,940	1,989	2,038	0.06	0.05	0.06	34
Tea	1,214	1,215	1,215	1,216	1,216	1,217	1,217	1,218	1,218	0.04	0.03	0.04	35
Pineapple	1,004	1,034	1,064	1,094	1,123	1,153	1,183	1,213	1,243	0.04	0.03	0.03	36
Plants, flowers and other horticultural products	773	807	841	875	909	943	978	1,012	1,046	0.03	0.03	0.03	37

Source: MINPMEESA

Appendix 13: Evolution of the estimated added values of agro-industrial products and branches between 2022 and 2030 (in billions FCFA)

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Cereal cultivation	100	773 844	818 612	863 381	908 149	952 918	997 686	1,042,455	1,087,223	1,131,992
Wheat (soft and hard)	0.25	1,927	2,038	2,150	2,261	2,373	2,484	2,596	2,707	2,819
Dried corn seed	50.41	390,075	412 642	435 208	457,775	480 342	502 908	525 475	548,042	570 608
Millet and Sorghum	33.41	258,504	273,459	288 414	303 369	318 324	333,279	348 234	363 189	378 144
paddy rice	15.42	119,343	126 247	133 151	140,055	146,959	153,864	160,768	167,672	174,576
Other Cereals	0.52	3,995	4,226	4,457	4,689	4,920	5,151	5,382	5,613	5,844
Cultivation of tubers	100	368 429	381,021	393,613	406 205	418,797	431 389	443,981	456,573	469 165
fresh cassava	48.54	178,830	184,942	191,054	197 166	203 278	209 390	215,502	221,614	227,726
Dried cassava	4.24	15,620	16,154	16,688	17,222	17,755	18,289	18,823	19,357	19,891
Macabo and Taro	22.95	84,556	87,446	90,336	93,226	96 116	99,006	101,896	104,786	107,676
Other tubers	24.27	89,423	92,479	95,535	98,592	101,648	104 704	107,760	110,817	113,873
Banana cultivation	100	163,525	169,646	175,766	181,887	188,007	194 128	200 248	206,369	212,489
Plantain bananas	51.26	85 131	88,269	91,406	94,543	97,681	100,818	103,955	107,093	110 230
Sweet bananas	48.74	80,946	83,929	86,912	89,895	92,878	95,862	98,845	101,828	104,811
Oilseed cultivation	100	215,739	229,796	243,853	257,910	271,967	286,024	300,081	314 138	328 195

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Peanuts seeds	69.56	150,062	159,840	169,618	179,395	189 173	198,951	208 728	218,506	228 284
palm nuts	18.48	39,864	42,461	45,058	47,656	50,253	52,851	55,448	58,046	60,643
Other oilseed plants	11.96	25,813	27,495	29,176	30,858	32,540	34,222	35,904	37,586	39,268
Fruit cultivation	100	8,246	8,491	8,737	8,982	9,228	9,473	9,719	9,964	10,210
Citrus	19.96	1,646	1,695	1,744	1,793	1,842	1,891	1,940	1,989	2,038
Pineapple	12.17	1,004	1,034	1,064	1,094	1,123	1,153	1,183	1,213	1,243
Other fruits	67.86	5,596	5,762	5,929	6,096	6,262	6,429	6,595	6,762	6,929
Cultivation of vegetables, plants and flowers	100	313,937	327,766	341,595	355 424	369,253	383,082	396 911	410 740	424,569
Dry bean and cowpea	21.47	67,418	70,387	73,357	76,327	79,297	82,266	85,236	88 206	91 176
Other legumes and pulses	22.68	71,216	74,353	77,490	80,627	83,764	86,901	90,038	93 175	96,313
Spices and condiments	16.39	51,449	53,716	55,982	58,249	60,515	62,781	65,048	67,314	69,580
Local leafy greens and mushrooms	39.21	123,081	128,503	133,925	139,346	144,768	150 190	155,612	161,033	166,455

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Plants, flowers and other horticultural products	0.25	773	807	841	875	909	943	978	1,012	1,046
Cocoa cultivation	100	431,983	443 744	455 505	467 266	479,027	490,788	502 549	514 310	526,071
Dried cocoa bean	100	431,983	443 744	455 505	467 266	479,027	490,788	502 549	514 310	526,071
coffee culture	100	30,254	30,266	30,278	30 290	30 302	30,314	30,326	30,338	30 350
parchment Arabica coffee	51.07	15,452	15,458	15,464	15,470	15,477	15,483	15,489	15,495	15,501
Dried Robusta coffee	44.91	13,588	13,593	13,598	13,604	13,609	13,614	13,620	13,625	13,631
Tea	4.01	1,214	1,215	1,215	1,216	1,216	1,217	1,217	1,218	1,218
Cultivation of other plant products n. that	100	35,841	37,597	39,352	41 108	42,863	44,619	46,374	48 130	49,885
Raw tobacco including prepared tobacco	13.28	4,761	4,994	5,227	5,460	5,694	5,927	6,160	6,393	6,626
Sugar cane	24.32	8,717	9,144	9,571	9,998	10,425	10,852	11,279	11,706	12,133
Aromatic or medicinal plants	14.68	5,263	5,521	5,778	6,036	6,294	6,552	6,809	7,067	7,325

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Kola nuts, Bitter Kola, other narcotics nec .	16.45	5,896	6,185	6,474	6,762	7,051	7,340	7,629	7,917	8,206
Other cultivated products nec . and agricultural support services	31.26	11,205	11,753	12,302	12,851	13,400	13,949	14,497	15,046	15,595
cattle breeding	100	272,758	287 181	301 604	316,027	330 450	344,873	359 296	373,719	388 142
Live cattle and raw cow's milk	100	272,758	287 181	301 604	316,027	330 450	344,873	359 296	373,719	388 142
Raising other animals	100	213,936	218 242	222,547	226,853	231 158	235,464	239,769	244,075	248,380
Sheep, goats and raw milk	36.14	77,308	78,863	80,419	81,975	83,531	85,087	86,642	88 198	89,754
Live pigs	17.56	37,571	38,327	39,083	39,839	40,595	41,351	42 107	42,864	43,620
Live poultry and eggs	40.07	85,720	87,445	89 170	90,895	92,620	94,345	96,070	97,795	99,521
Horses, donkeys and other live farmed animals	1.93	4,125	4,208	4,291	4,374	4,457	4,540	4,623	4,706	4,789

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Beekeeping products (natural honey, beeswax and royal jelly)	4.31	9,214	9,399	9,584	9,770	9,955	10,141	10,326	10,511	10,697
Meat production, processing & preservation	100	240,466	245,701	250,937	256 172	261,408	266,643	271,879	277 114	282,350
Fresh, smoked or dried game	98.58	237,051	242 213	247,374	252,535	257,696	262,857	268,018	273 180	278,341
Livestock support services	1.42	3,414	3,489	3,563	3,637	3,712	3,786	3,860	3,935	4,009
Processing and preservation of fish and fish products	100	88,949	92,387	95,825	99,263	102,701	106 139	109,577	113,015	116,453
Fresh fish	22.31	19,846	20,613	21,380	22,147	22,914	23,681	24,448	25 215	25,982
Crustaceans and other fish products	8.56	7,611	7,905	8,199	8,493	8,787	9,082	9,376	9,670	9,964
Inland Fisheries and Aquaculture Products	69.13	61,493	63,869	66,246	68,623	71,000	73,377	75,753	78 130	80,507

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Manufacture of cereal flour	100	83,567	81,496	79,426	77,355	75,285	73,214	71 144	69,073	67,003
Wheat flour (wheat)	25.8	21,560	21,026	20,492	19,957	19,423	18,889	18,355	17,821	17,286
Corn flour	48.44	40,484	39,481	38,478	37,475	36,472	35,469	34,465	33,462	32,459
Flour of other cereals and semolina	25.76	21,523	20,990	20,457	19,923	19,390	18,857	18,324	17,790	17,257
Rice preparation (f)	100	76,914	78,390	79,866	81,342	82,818	84,294	85,770	87,246	88,722
Husked seed rice	100	76,914	78,390	79,866	81,342	82,818	84,294	85,770	87,246	88,722
Manufacture of cassava products (f)	100	53,879	54 197	54,515	54,833	55 151	55,469	55,787	56 105	56,423
Cassava stick (ebobolo, myondo, mintoumba)	39.96	21,529	21,656	21,783	21,911	22,038	22,165	22,292	22,419	22,546
Starch hydrolysis products	60.04	32,350	32,541	32,732	32,922	33 113	33,304	33,495	33,686	33,877
Manufacture of cocoa, chocolate and confectionery	100	80,693	85,713	90,733	95,753	100,773	105,793	110,813	115,833	120,853

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Mass cocoa	31.6	25,501	27,087	28,674	30 260	31,846	33,433	35,019	36,606	38 192
Butter and cocoa powder	22.03	17,780	18,886	19,992	21,098	22 204	23,310	24,416	25,522	26,628
Chocolate, confectionery and chocolate-based preparations	46.36	37,413	39,741	42,068	44,396	46,723	49,051	51,378	53,706	56,033
Coffee and tea processing	100	4,051	4,393	4,736	5,078	5,421	5,763	6,106	6,448	6,791
Roasted coffee; coffee products	76.67	3,106	3,369	3,631	3,894	4,156	4,419	4,682	4,944	5,207
Conditioned tea	23.33	945	1,025	1,105	1,185	1,264	1,344	1,424	1,504	1,584
Manufacture of sugar (f)	100	40,349	41,437	42,524	43,612	44,699	45,787	46,874	47,962	49,049
Sugar and molasses	100	40,349	41,437	42,524	43,612	44,699	45,787	46,874	47,962	49,049
Manufacture of oils and raw cakes	100	198,519	210,722	222,925	235 128	247,331	259,534	271,737	283,940	296 143
Crude palm oil	56.04	111,245	118,083	124,921	131,759	138,597	145,436	152,274	159 112	165,950
Other crude oils	25.65	50,928	54,058	57,189	60,319	63,450	66,580	69,711	72,841	75,972
Meals	18.31	36,346	38,581	40,815	43,049	45,283	47,518	49,752	51,986	54,220

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Manufacture of refined oils, margarine and fats	100	71,723	78,075	84,426	90,778	97 129	103,481	109,832	116 184	122,535
Refined palm oil	63.34	45,433	49,456	53,479	57,503	61,526	65,549	69,573	73,596	77,619
Other refined oils	27.04	19,393	21 110	22,827	24,545	26,262	27,979	29,697	31,414	33 131
Margarine and various fats	9.62	6,898	7,509	8,119	8,730	9,341	9,952	10,563	11,174	11,785
Animal feed production	100	17,431	18,991	20,552	22 112	23,673	25,233	26,794	28,354	29,915
Feed and other animal feed	100	17,431	18,991	20,552	22 112	23,673	25,233	26,794	28,354	29,915
Bakery, pastry and pasta making	100	173,846	176,460	179,074	181,688	184 302	186,916	189,530	192 144	194,758
Bread and fresh pastry	35.61	61,900	62,830	63,761	64,692	65,623	66,553	67,484	68,415	69,346
Biscuits and rusks	10.08	17,530	17,793	18,057	18,321	18,584	18,848	19 111	19,375	19,638

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Fritters of all kinds (wheat, maize, cassava, bean flour, corn, millet, rice puffs, etc.)	46.57	80,965	82 183	83,400	84,617	85,835	87,052	88,270	89,487	90,704
Pasta	7.74	13,451	13,654	13,856	14,058	14,260	14,463	14,665	14,867	15,069
Manufacture of dairy products	100	116,872	122,312	127,752	133 192	138,632	144,072	149,512	154,952	160,392
Milk, butter and ice cream	100	116,872	122,312	127,752	133 192	138,632	144,072	149,512	154,952	160,392
Processing and preservation of fruits and manufacture of food products	100	30 108	31,665	33,222	34,779	36,336	37,893	39,450	41,007	42,564
Fruit and vegetable juices	31.84	9,585	10,081	10,577	11,072	11,568	12,064	12,560	13,055	13,551
Condiments, seasonings and miscellaneous food products	68.16	20,523	21,584	22,646	23,707	24,768	25,829	26,891	27,952	29,013
Brewing beer and malt	100	255,087	254,853	254,619	254,385	254 151	253,917	253,683	253,449	253 215

Branches and products	Average weight of products in each branch between 2016 and 2018 (in %)	Estimated VA 2022	Estimated VA 2023	Estimated VA 2024	Estimated VA 2025	Estimated VA 2026	Estimated VA 2027	Estimated VA 2028	Estimated VA 2029	Estimated VA 2030
Beer	98.14	250,337	250 107	249,878	249,648	249,418	249 189	248,959	248,730	248,500
Malt	1.86	4,750	4,746	4,741	4,737	4,733	4,728	4,724	4,719	4,715
Manufacture of other alcoholic beverages (except beer)	100	57,952	60,847	63,743	66,638	69,534	72,429	75,325	78,220	81 116
Modern alcoholic beverages	15.15	8,781	9,220	9,659	10,098	10,536	10,975	11,414	11,853	12,291
Craft alcoholic beverages	84.85	49,170	51,627	54,084	56,540	58,997	61,454	63,911	66,367	68,824
Manufacture of soft drinks and waters	100	26,634	26,495	26,356	26,217	26,078	25,939	25,800	25,661	25,522
Soft drinks and mineral waters	100	26,634	26,495	26,356	26,217	26,078	25,939	25,800	25,661	25,522
Total agri-food		4,445,532	4,616,497	4,787,462	4,958,427	5,129,392	5,300,357	5,471,322	5,642,287	5,813,252

Source : MINPMEESA based on SIPAE data

Appendix 14: Evolution of intermediate consumption gaps and production gaps of industrial processing branches between 2022 and 2030 (in billions FCFA)

Wording	GAP of CI 2022	GAP production 2022	GAP of CI 2023	GAP production 2023	GAP of CI 2024	Production GAP 2024	GAP of CI 2024	Production GAP 2025	GAP of CI 2026	Production GAP 2026	GAP of CI 2027	Production GAP 2027	GAP of CI 2028	Production GAP 2028	GAP of CI 2029	Production GAP 2029	GAP of CI 2030	Production GAP 2030
Manufacture of cereal flour	2.38	4.57	4.92	9.44	8.59	16.50	13.71	26.33	20.10	38.60	30.50	58.57	42.30	81.24	55.11	105.85	71.98	138.24
Wheat flour (wheat)	0.61	1.18	1.27	2.44	2.22	4.26	3.54	6.79	5.18	9.96	7.87	15.11	10.91	20.96	14.53	27.91	18.98	36.45
Corn flour	1.15	2.21	2.38	4.57	4.16	7.99	6.64	12.75	9.74	18.70	14.77	28.37	20.49	39.36	27.28	52.40	35.64	68.44
Flour of other cereals and semolina	0.61	1.18	1.27	2.43	2.21	4.25	3.53	6.78	5.18	9.94	7.85	15.09	10.89	20.92	13.30	25.54	17.37	33.35
Rice preparation (f)	0.61	2.28	1.26	4.71	2.21	8.23	3.52	13.12	5.16	19.24	7.83	29.19	9.95	37.10	13.25	49.40	17.31	64.53
Husked seed rice	0.61	2.28	1.26	4.70	2.20	8.22	3.51	13.11	5.14	19.23	7.80	29.16	9.92	37.07	13.20	49.36	17.25	64.47
Manufacture of cassava products (f)	0.74	1.97	1.52	4.06	2.66	7.10	4.25	11.32	6.23	16.60	9.45	25.19	12.01	32.03	15.99	42.65	20.89	55.71
Cassava stick (ebobolo , miondo , mintoumba)	0.29	0.79	0.61	1.62	1.06	2.84	1.70	4.53	2.49	6.63	3.77	10.07	4.80	12.80	6.39	17.04	8.35	22.26
Starch hydrolysis products	0.44	1.18	0.91	2.44	1.60	4.26	2.55	6.80	3.74	9.97	5.67	15.13	7.21	19.23	9.60	25.61	12.54	33.45
Manufacture of cocoa, chocolate and confectionery	1.69	3.09	3.48	6.38	6.08	11.13	9.71	17.78	14.23	26.06	21.59	39.53	27.44	50.25	36.54	66.91	47.73	87.39
Mass cocoa	0.53	0.98	1.10	2.02	1.92	3.52	3.07	5.62	4.50	8.24	6.82	12.49	8.67	15.88	11.55	21.15	15.08	27.62
Butter and cocoa powder	0.37	0.68	0.77	1.41	1.34	2.45	2.14	3.92	3.14	5.74	4.76	8.71	6.05	11.07	8.05	14.74	10.52	19.25
Chocolate, confectionery and chocolate-based preparations	0.78	1.43	1.62	2.96	2.82	5.16	4.50	8.24	6.60	12.08	10.01	18.33	12.72	23.30	16.94	31.02	22.13	40.52
Coffee and tea processing	0.28	0.33	0.79	0.93	1.37	1.60	2.17	2.55	3.15	3.70	4.80	5.63	6.09	7.16	8.09	9.50	10.61	12.46
Roasted coffee; coffee products	0.28	0.33	0.60	0.71	1.05	1.23	1.67	1.96	2.42	2.84	3.68	4.32	4.67	5.49	6.20	7.29	8.14	9.56
Conditioned tea	0.09	0.10	0.18	0.22	0.32	0.37	0.51	0.60	0.74	0.86	1.12	1.31	1.42	1.67	1.89	2.22	2.48	2.91
Manufacture of sugar (f)	1.06	1.89	2.19	3.91	3.82	6.83	6.09	10.88	8.94	15.97	13.56	24.22	17.23	30.79	22.95	41.01	29.98	53.56
Sugar and molasses	1.06	1.89	2.19	3.91	3.82	6.83	6.09	10.88	8.94	15.97	13.56	24.22	17.23	30.79	22.95	41.01	29.98	53.56
Manufacture of crude oils and cakes	3.53	6.99	7.30	14.43	12.74	25.21	20.33	40.23	29.81	58.97	45.24	89.49	57.50	113.75	76.57	151.48	100.01	197.85
Crude palm oil	1.98	3.92	4.09	8.09	7.14	14.13	11.39	22.54	16.70	33.05	25.35	50.15	32.22	63.74	42.91	84.88	56.04	110.87
Other crude oils	0.91	1.79	1.87	3.70	3.27	6.47	5.22	10.32	7.65	15.13	11.60	22.96	14.75	29.18	19.64	38.86	25.66	50.76
Meals	0.65	1.28	1.34	2.64	2.33	4.62	3.72	7.37	5.46	10.80	8.28	16.38	10.53	20.83	14.02	27.73	18.31	36.22

Wording	GAP of CI 2022	GAP production 2022	GAP of CI 2023	GAP production 2023	GAP of CI 2024	Production GAP 2024	GAP of CI 2024	Production GAP 2025	GAP of CI 2026	Production GAP 2026	GAP of CI 2027	Production GAP 2027	GAP of CI 2028	Production GAP 2028	GAP of CI 2029	Production GAP 2029	GAP of CI 2030	Production GAP 2030
Manufacture of refined oils, margarine and fats	0.67	1.72	1.38	3.56	2.42	6.23	3.86	9.95	5.66	14.58	8.59	22.12	10.92	28.12	14.54	37.44	18.98	48.90
Refined palm oil	0.42	1.09	0.88	2.26	1.53	3.95	2.45	6.30	3.59	9.24	5.44	14.01	6.92	17.81	9.21	23.72	12.03	30.98
Other refined oils	0.18	0.47	0.37	0.96	0.65	1.69	1.04	2.69	1.53	3.94	2.32	5.98	2.95	7.60	3.93	10.12	5.13	13.22
Margarine and various fats	0.06	0.17	0.13	0.34	0.23	0.60	0.37	0.96	0.54	1.40	0.83	2.13	1.05	2.70	1.40	3.60	1.83	4.70
Bakery, pastry and pasta making	4.84	8.68	9.99	17.91	17.44	31.28	25.68	46.06	40.80	73.18	61.91	111.05	78.70	141.15	104.79	187.95	136.87	245.49
Bread and fresh pastry	1.72	3.09	3.56	6.38	6.21	11.14	9.91	17.77	14.53	26.06	22.05	39.54	28.02	50.26	37.31	66.92	48.73	87.41
Biscuits and rusks	0.49	0.88	1.01	1.81	1.76	3.15	2.81	5.03	4.11	7.38	6.24	11.20	7.94	14.23	10.57	18.95	13.80	24.75
Donuts of all kinds	2.25	4.04	4.65	8.34	8.12	14.57	12.96	23.25	19.00	34.08	28.84	51.72	36.65	65.74	48.80	87.53	63.74	114.33
Pasta	0.37	0.67	0.77	1.39	1.35	2.42	0.01	0.01	3.16	5.66	4.79	8.59	6.09	10.92	8.11	14.54	10.59	18.99
Manufacture of dairy products	0.95	3.08	1.96	6.36	3.43	11.11	5.47	17.72	7.99	25.90	12.17	39.41	15.47	50.10	20.60	66.73	26.90	87.15
Milk, butter and ice cream	0.95	3.08	1.96	6.36	3.43	11.11	5.47	17.72	7.99	25.90	12.17	39.41	15.47	50.10	20.60	66.73	26.90	87.15
Processing and preservation of fruits and manufacture of food products	0.54	1.11	1.11	2.27	1.94	3.97	3.09	6.34	4.54	9.31	6.89	14.11	8.76	17.95	11.66	23.89	15.23	31.21
Fruit and vegetable juices	0.17	0.35	0.35	0.72	0.62	1.26	0.98	2.02	1.45	2.96	2.19	4.49	2.79	5.72	3.71	7.61	4.85	9.94
Condiments, seasonings and miscellaneous food products	0.37	0.76	0.76	1.55	1.32	2.71	2.11	4.32	3.10	6.35	4.69	9.62	5.97	12.24	7.95	16.29	10.38	21.28
Brewing beer and malt	5.15	11.16	10.62	23.04	18.56	40.25	29.62	64.24	43.42	94.17	65.88	142.89	83.74	181.62	111.51	241.85	145.65	315.89
Beer	5.05	10.95	10.42	22.61	18.21	39.50	29.07	63.05	42.61	92.42	64.65	140.22	82.18	178.24	109.43	237.35	142.93	310.01
Malt	0.10	0.21	0.20	0.43	0.35	0.75	0.55	1.20	0.81	1.75	1.23	2.66	1.56	3.38	2.08	4.50	2.71	5.88
Manufacture of other alcoholic beverages (except beer)	1.38	2.48	2.83	5.08	4.94	8.89	7.88	14.16	11.56	20.77	17.53	31.50	22.29	40.05	29.67	53.32	38.76	69.66
Modern alcoholic beverages	0.21	0.38	0.43	0.77	0.75	1.35	1.19	2.15	1.75	3.15	2.66	4.77	3.38	6.07	4.50	8.08	5.87	10.56
Craft alcoholic beverages	1.17	2.10	2.40	4.31	4.20	7.54	6.69	12.02	9.81	17.62	14.87	26.73	18.91	33.98	25.17	45.24	32.89	59.11
Manufacture of soft drinks and waters	0.78	1.43	1.61	2.95	2.81	5.15	4.48	8.21	6.57	12.03	9.96	18.25	12.65	23.19	16.85	30.87	22.02	40.34

Wording	GAP of CI 2022	GAP production 2022	GAP of CI 2023	GAP production 2023	GAP of CI 2024	Production GAP 2024	GAP of CI 2024	Production GAP 2025	GAP of CI 2026	Production GAP 2026	GAP of CI 2027	Production GAP 2027	GAP of CI 2028	Production GAP 2028	GAP of CI 2029	Production GAP 2029	GAP of CI 2030	Production GAP 2030
Soft drinks and mineral waters	0.78	1.43	1.61	2.95	2.81	5.15	4.48	8.21	6.57	12.03	9.96	18.25	12.65	23.19	16.85	30.87	22.02	40.34
Meat production, processing & preservation	4.39	9.99	8.30	18.89	14.49	33.00	23.05	52.48	33.90	77.18	28.30	64.43	65.39	148.87	87.07	198.24	113.72	258.92
Fresh, smoked or dried game	4.32	9.84	8.18	18.62	14.29	32.53	22.72	51.74	33.42	76.08	27.90	63.51	64.46	146.76	85.83	195.42	112.11	255.24
Livestock support services	0.06	0.14	0.12	0.27	0.21	0.47	0.33	0.75	0.48	1.10	0.40	0.91	0.93	2.11	1.24	2.81	1.61	3.68
Animal feed production	0.37	0.63	0.75	1.27	1.31	2.23	2.09	3.55	3.06	5.19	4.65	7.90	5.90	10.03	7.86	13.35	10.27	17.45
Feed and other animal feed	0.37	0.63	0.75	1.27	1.31	2.23	2.09	3.55	3.06	5.19	4.65	7.90	5.90	10.03	7.86	13.35	10.27	17.45
Processing and preservation of fish and fish products	1.72	3.50	3.59	7.29	6.22	12.63	9.92	20.16	14.55	29.56	22.07	44.84	28.05	57.01	37.35	75.90	48.78	99.14
Fresh fish	0.38	0.78	0.79	1.61	1.39	2.82	2.21	4.50	3.25	6.60	4.92	10.00	6.26	12.72	8.33	16.93	10.88	22.12
Crustaceans and other fish products	0.15	0.30	0.33	0.68	0.53	1.08	0.85	1.73	1.24	2.53	1.89	3.84	2.40	4.88	3.20	6.49	4.17	8.48
Inland Fisheries and Aquaculture Products	1.19	2.42	2.46	5.00	4.30	8.73	6.86	13.94	10.06	20.44	15.25	31.00	19.39	39.41	25.82	52.47	33.73	68.54
GAP VA																		
SND 30 catch-up real GDP		1189.69	0.00	1258.87	0.00	1343.12	0.00	1444.81	0.00	1566.88	0.00	1713.03	0.00	1887.84	0.00	2097.08	0.00	2347.91
Trend Real GDP		1153.27	0.00	1183.69	0.00	1211.79	0.00	1237.20	0.00	1259.72	0.00	1279.14	0.00	1295.30	0.00	1308.07	0.00	1317.34
GAP GDP		36.42	0.00	75.18	0.00	131.34	0.00	207.61	0.00	307.16	0.00	433.89	0.00	592.54	0.00	789.00	0.00	1030.57

Appendix 15: Estimation of value added gaps by products and branches of agro-industry between 2022 and 2030 (in billions of CFA francs)

Branch and products	2022	2023	2024	2025	2026	2027	2028	2029	2030
Manufacture of cereal flour	2.39	4.94	8.63	13.64	20.18	28.51	38.94	51.85	67.72
Wheat flour (wheat)	0.62	1.27	2.23	3.52	5.21	7.36	10.05	13.38	17.47
Corn flour	1.16	2.39	4.18	6.61	9.78	13.81	18.86	25.12	32.81
Flour of other cereals and semolina	0.62	1.27	2.22	3.51	5.2	7.34	10.03	13.35	17.44
Rice preparation (f)	1.82	3.76	6.57	10.38	15.36	21.69	29.62	39.44	51.52
Husked seed rice	1.82	3.76	6.57	10.38	15.36	21.69	29.62	39.44	51.52
Manufacture of cassava products (f)	1.34	2.77	4.84	7.65	11.32	15.99	21.84	29.08	37.99
Cassava stick (ebobolo , miondo , mintoumba)	0.54	1.11	1.93	3.06	4.52	6.39	8.73	11.62	15.18
Starch hydrolysis products	0.8	1.66	2.91	4.59	6.8	9.6	13.11	17.46	22.81
Manufacture of cocoa, chocolate and confectionery	1.53	3.16	5.51	8.72	12.9	18.22	24.88	33.13	43.27
Mass cocoa	0.48	1	1.74	2.76	4.08	5.76	7.86	10.47	13.67
Butter and cocoa powder	0.34	0.7	1.21	1.92	2.84	4.01	5.48	7.3	9.53
Chocolate, confectionery and chocolate-based preparations	0.71	1.47	2.55	4.04	5.98	8.45	11.54	15.36	20.06
Coffee and tea processing	0.07	0.15	0.26	0.41	0.6	0.85	1.16	1.54	2.02
Roasted coffee; coffee products	0.05	0.12	0.2	0.31	0.46	0.65	0.89	1.18	1.55
Conditioned tea	0.02	0.03	0.06	0.1	0.14	0.2	0.27	0.36	0.47
Manufacture of sugar (f)	0.91	1.88	3.28	5.18	7.67	10.83	14.79	19.7	25.73
Sugar and molasses	0.91	1.88	3.28	5.18	7.67	10.83	14.79	19.7	25.73
Manufacture of crude oils and cakes	3.77	7.79	13.6	21.5	31.81	44.94	61.37	81.72	106.74
Crude palm oil	2.11	4.37	7.62	12.05	17.83	25.18	34.39	45.79	59.81
Other crude oils	0.97	2	3.49	5.52	8.16	11.53	15.74	20.96	27.38
Meals	0.69	1.43	2.49	3.94	5.82	8.23	11.24	14.96	19.54
Manufacture of refined oils, margarine and fats	1.15	2.38	4.16	6.58	9.73	13.74	18.77	24.99	32.64
Refined palm oil	0.73	1.51	2.64	4.17	6.16	8.7	11.89	15.83	20.68
Other refined oils	0.31	0.64	1.12	1.78	2.63	3.72	5.08	6.76	8.83
Margarine and various fats	0.11	0.23	0.4	0.63	0.94	1.32	1.81	2.4	3.14
Bakery, pastry and pasta making	4.19	8.65	15.1	23.87	35.32	49.9	68.14	90.73	118.51
Bread and fresh pastry	1.49	3.08	5.38	8.5	12.58	17.77	24.26	32.31	42.2
Biscuits and rusks	0.42	0.87	1.52	2.41	3.56	5.03	6.87	9.15	11.95
Donuts of all kinds	1.95	4.03	7.03	11.12	16.45	23.24	31.73	42.26	55.19
Pasta	0.32	0.67	1.17	0	2.73	3.86	5.27	7.02	9.17

Branch and products	2022	2023	2024	2025	2026	2027	2028	2029	2030
Manufacture of dairy products	2.32	4.8	8.38	13.24	19.53	27.67	37.79	50.33	65.73
Milk, butter and ice cream	2.32	4.8	8.38	13.24	19.53	27.67	37.79	50.33	65.73
Processing and preservation of fruits and manufacture of food products	0.62	1.27	2.22	3.51	5.2	7.34	10.03	13.35	17.44
Fruit and vegetable juices	0.2	0.4	0.71	1.12	1.66	2.34	3.19	4.25	5.55
Condiments, seasonings and miscellaneous food products	0.42	0.87	1.51	2.39	3.54	5	6.84	9.1	11.89
Brewing beer and malt	6.56	13.55	23.67	37.42	55.36	78.2	106.79	142.2	185.74
Beer	6.44	13.3	23.23	36.72	54.33	76.74	104.8	139.55	182.28
Malt	0.12	0.25	0.44	0.7	1.03	1.46	1.99	2.65	3.46
Manufacture of other alcoholic beverages (except beer)	1.19	2.46	4.3	6.79	10.05	14.19	19.38	25.8	33.71
Modern alcoholic beverages	0.18	0.37	0.65	1.03	1.52	2.15	2.94	3.91	5.11
Craft alcoholic beverages	1.01	2.09	3.65	5.76	8.53	12.04	16.44	21.89	28.6
Manufacture of soft drinks and waters	0.71	1.46	2.55	4.03	5.96	8.42	11.49	15.3	19.99
Soft drinks and mineral waters	0.71	1.46	2.55	4.03	5.96	8.42	11.49	15.3	19.99
Meat production, processing & preservation	5.6	11.56	20.19	31.81	47.21	36.69	91.08	121.28	158.41
Fresh, smoked or dried game	5.52	11.4	19.9	31.36	46.54	36.17	89.79	119.56	156.16
Livestock support services	0.08	0.16	0.29	0.45	0.67	0.52	1.29	1.72	2.25
Processing and preservation of fish and fish products	1.94	4.01	7	11.07	16.38	23.13	31.59	42.06	54.94
Fresh fish	0.43	0.89	1.56	2.47	3.65	5.16	7.05	9.38	12.26
Crustaceans and other fish products	0.17	0.34	0.6	0.95	1.4	1.98	2.7	3.6	4.7
Inland Fisheries and Aquaculture Products	1.34	2.77	4.84	7.65	11.32	15.99	21.84	29.08	37.98
Animal feed production	0.28	0.57	1	1.58	2.33	3.3	4.5	5.99	7.83
Feed and other animal feed	0.28	0.57	1	1.58	2.33	3.3	4.5	5.99	7.83
Total agri-food	36.39	75.16	131.26	207.38	306.91	403.61	592.16	788.49	1,029.93

Source: MINPMEESA

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