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MINISTERE DE L'ENVIRONNEMENT,
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REPUBLIC OF CAMEROON
Peace – Work – Fatherland

MINISTRY OF ENVIRONMENT,
PROTECTION OF NATURE AND
SUSTAINABLE DEVELOPMENT
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NATIONAL STRATEGY TO COMBAT PLASTIC POLLUTION

STRATEGY

December 2022

Overview of a drain blocked by plastic waste in Douala Bonaberi.

***Source**: MINEPDED, 2022.*

December 2022

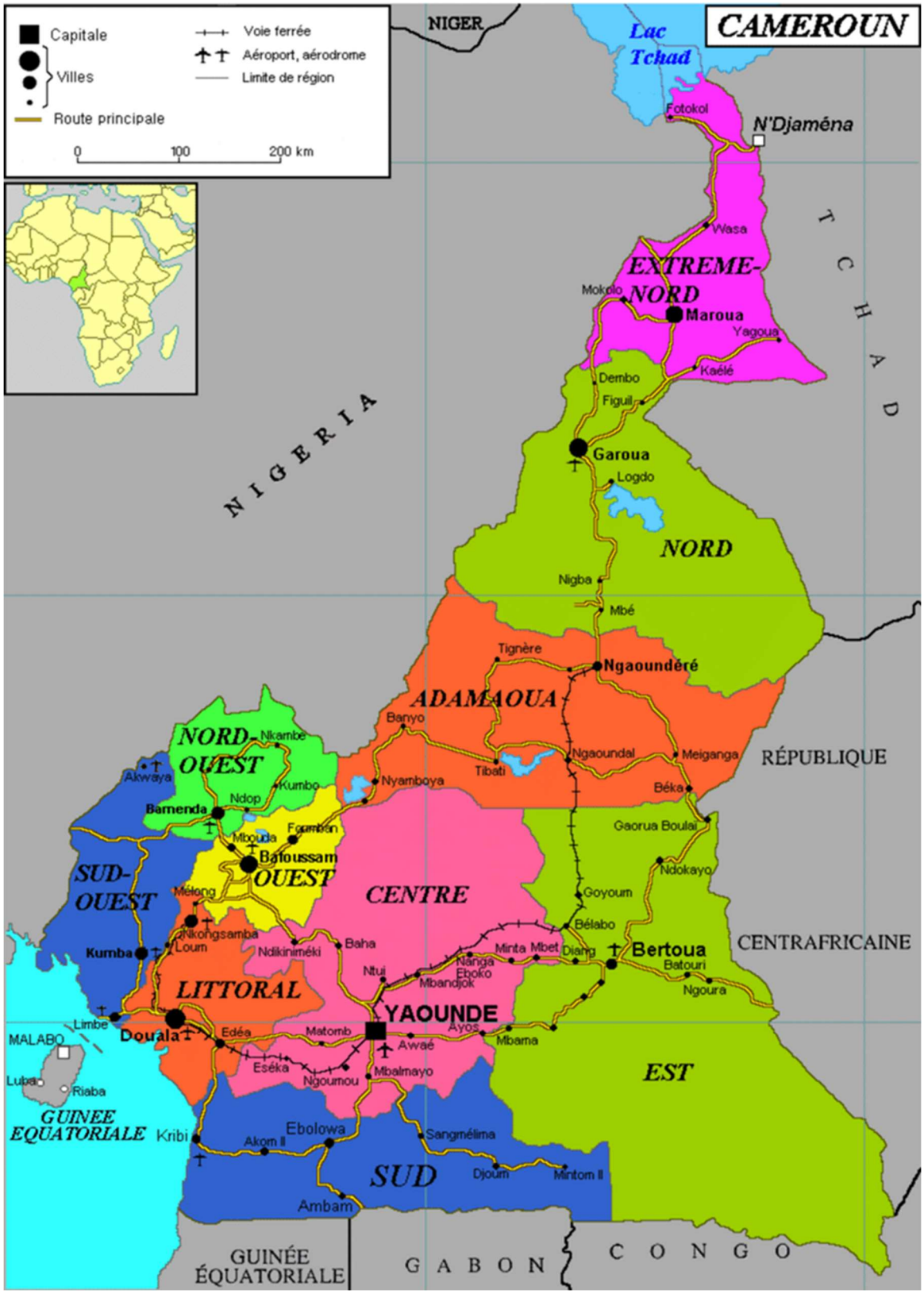

Figure 1: Administrative map of Cameroon

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List of abbreviations and acronyms

3Rs : Reduction, Reuse, Recycling

NGAs : non-governmental actors

SA: Strategic axis

BIE: Environmental Inspection Brigade

BIP: Public Investment Budget

CEMAC: Central African Economic and Monetary Community

RLAs : Regional and Local Authorities

WEEE : waste electrical and electronic equipment

DG: Directorate General

DNC: Department of Standards and Control;

GESP: Growth and Employment Strategy Paper

MSW: Municipal Solid waste

ECAM: Cameroon Household Survey

ETS : Establishment;

FEICOM: Special Council Support Fund for Mutual Assistance

SWOT: Strengths-Weaknesses-Opportunities and Threats

GHG: Greenhouse Gas

GIZ: German Agency for International Cooperation

HALCOMI : Stop illegal trade

HYSACAM : Hygiène et salubrité du Cameroun

NIS : National Institute of Statistics

KFW: German Credit institution for reconstruction

MINADER : Ministry of Agriculture and Rural Development

MINAS: Ministry of Social Affairs

MINCOMMERCE: Ministry of Trade

MINDDEVEL : Ministry of Decentralization and Local Development

MINEE : Ministry of Water Resources and Energy

MINEPDED : Ministry of Environment, Protection of Nature and Sustainable Development

MINFI : Ministry of Finance

MINEFOP: Ministry of Employment and Vocational Training

MINHDU : Ministry of Housing and Urban Development

MINJEC Ministry of Youth Affairs and Civic Education

MINMIDT : Ministry of Mines, Industry and Technological Development

MINPMEESA Ministry of Small and Medium Sized Enterprises, Social Economy and Handicrafts.

MINREX : Ministry of External Relations

MINSANTE : Ministry of Public Health

SDGs Sustainable Development Goals

NGO: Non-Governmental Organization

SO: Strategic option

CSO: Civil Society Organization

UMP: Urbanization Master Plan

PE: Polyethylene

LDPE: Low density polyethylene

HDPE: High density polyethylene

PETP: Polyethylene terephthalate

SME: Small and Medium size Enterprise

UNDP United Nations Development Programme

UNEP: United Nations Environment Programme

LUP: Land use planning

PP: polypropylene

Sp : Sector Plan

PS: Polystyrene

A

TFP: Technical and Financial Partners

PCB: Poly chlorinated Biphenyl

EPR: Extended Producer Responsibility

SABC: Société A nonyme des Brasseries du Cameroun

NDS30. 2030 National Development Strategy

SNLPP: National strategy to combat plastic pollution

UNEA : United Nations Environment Assembly

GLOSSARY

Packaging: any object, regardless of the nature of the materials of which it is made, intended to contain and protect goods, to enable their handling and transport from producer to consumer.

Reclamation or valuation: Any operation of recycling, reuse, recovery, use of waste as a source of energy or any other action aimed at obtaining raw materials or reusable products from the recovery of waste, in order to reduce or eliminate the negative impact of such waste on the environment.

Plastic: a synthetic material consisting essentially of macromolecules that can be shaped or moulded, usually under heat and pressure.

Single-use plastic: according to the European Commission, this is "a product made wholly or partly from plastic and which is not designed, created or placed on the market to make, during its lifetime, several trips or rotations by being returned to a producer to be refilled or reused for the same purpose for which it was designed. “

Pre-collection of waste: All operations geared towards the evacuation of waste from the place of its production until it is taken over by the collection service of the municipality or any other authorized body.

5W1H: Technique for finding information about a problem, its causes, the actors and a primary analysis of the situation.

Recovery: Any operation to obtain physical waste by authorized facilities for treatment, recycling and immediate disposal.

Recycling: The direct reintroduction of a material after recovery into its own production cycle as a total or partial replacement for a new raw material.

Reuse: Operation by which a product is given, abandoned or sold by its owner to a third party who, in principle, will give it a second life.

Repair: operation that consists of restoring damaged or out-of-use products to a state of use or functioning with the aim of giving them a new life.

Re-using: operation that consists of intervening on waste to introduce it in its entirety or in the form of spare parts into another circuit or another sectors.

Transformation: Any act that consists of reusing the waste in another form.

RÉSUMÉ ÉXÉCUTIF

Les difficultés de mise en application des dispositions réglementaires relatives à la protection de l'environnement contre la pollution par les plastiques de manière générale et la nécessité de donner une réponse efficace aux défis nationaux liés à cette problématique au Cameroun, ont été à l'origine de l'élaboration de la présente stratégie nationale de lutte contre la pollution par les plastiques.

D'un point de vue global, l'étude a consisté à dresser un état des lieux de la lutte contre la pollution par les plastiques en adoptant une approche consultative et participative avec l'ensemble des parties prenantes.

La méthodologie de diagnostic adoptée s'est basée sur : (i) l'exploitation de la littérature au niveau national et international et l'identification des « Hotspots » en termes de points d'entrées des emballages plastiques ainsi que les zones de fortes activités économiques ; (ii) l'identification des différents types de facteurs qui influenceraient la lutte dans le contexte camerounais en se basant sur la littérature. Des équipes régionales ont assuré la collecte des données auprès des trois catégories d'acteurs identifiés : institutions de planification, agences d'exécution et institutions de financement.

L'analyse des Forces, Faiblesses, Opportunités et Menaces (FFOM) a permis de cerner les problèmes majeurs et les options de la stratégie à envisager pour les résoudre. Au total 09 axes stratégiques sont proposés : l'amélioration de la gouvernance institutionnelle et juridique de la lutte contre la pollution par les plastiques ; la mise en place d'une règlementation favorable à la réduction de l'usage des emballages plastiques ; La promotion de l'écoconception, l'écologie industrielle et l'économie de la fonctionnalité pour les produits plastiques ; le renforcement des actions de lutte contre la pollution plastique au sein des institutions d'exécution et de gestion ; le renforcement des actions d'éducation, de sensibilisation et de communication ; le développement des projets et programmes de recherche innovants en matière de substitution du plastique ; le renforcement des mécanismes d'incitation financière et optimisation des ressources allouées ; renforcement du système d'information environnemental ; renforcement du dispositif de mise en œuvre et de suivi-évaluation.

Ces axes ont été déclinés en mesures simples à mettre en œuvre pour l'atteinte des objectifs aux niveaux opérationnel et stratégique. Un plan d'action assorti d'un budget prévisionnel a également été proposé pour garantir les ressources nécessaires à l'opérationnalisation de la présente stratégie qui sera évaluée à mi-parcours et à la fin de la période de mise en œuvre avec exploitation des progrès en faveur de la SND30.

EXECUTIVE SUMMARY

The difficulties related to the implementation of environmental protection regulations to combat pollution generated by plastic waste in general and the need to give an effective response to national challenges related to this problem in our country, are some of the reasons behind the development this national strategy to combat plastic pollution.

From a global point of view, the study consists of taking stock of the current situation of the response to plastic pollution by adopting a consultative and participatory approach with all the stakeholders.

The diagnostic methodology adopted was based on: (i) the review of literature related to issues of plastic pollution at the national and international level and the identification of "Hotspots" in terms of entry points of plastic packaging and of strong economic activities, (ii) the identification of the different types of factors that are likely to influence the response in the Cameroon context based on literature.

Different tools were adopted to structure the results of this diagnosis and to analyse the related pollution situation. These include the use of management tools such as Brainstorming and the WWWWHW (what, who, where, when, how, why), Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. Initial results from the literature review provided insight into the context, international practices, and magnitude of plastic pollution at the global and African level.

A map showing the plastic entry points in Cameroon and the municipalities targeted by the study was developed based on a series of primary data. The SWOT analysis was also used to identify the major problems and the strategy options to be considered to solve them. Nine (9) strategic axes or areas were proposed and aligned with policy documents and international commitments ratified by Cameroon. These axes have been broken down into simple measures to achieve objectives at the operational and strategic levels. An action plan accompanied by a provisional budget has also been proposed to ensure the resources needed are available. A middle-term evaluation will be held in 2023 and the final results are expected in 2029 and progress measured to be reported in the national development strategy in 2030.

GENERAL INTRODUCTION

I- Background and rationale for the development of the strategy to combat plastic pollution

For more than a decade, Cameroon has produced a number of documents that guide its social and economic development. Within this framework, the Government, in collaboration with civil society, the private sector and development partners, has adopted a long-term vision for the development of Cameroon over a period of 25 to 30 years. This vision is broken down into three main phases, including (i) the phase of modernization of the economy and acceleration of growth materialized by the Growth and Employment Strategy Paper (GESP), (ii) the phase of reaching the level of a middle-income country, the results of which have been planned in the National Development Strategy by 2030 (NDS30), and (iii) phase 3 relating to the attainment of the ultimate objective of a "Newly Industrializ ed Country and an Emerging Country" by 2035.

The NDS30 constitutes the new reference framework for the period 2020-2030 with four (04) main objectives, including the strengthening of measures for adaptation and mitigation of the effects of climate change and environmental management to ensure economic growth and a sustainable and inclusive social development.

This section will present the context in which the strategy was developed, as well as the issues and objectives that underpin the development of the strategy.

I.1- Context for the development of the strategy to combat plastic pollution

The issue of plastic waste pollution is nowadays a major concern at all scalar levels: global, national and local. During the last two decades, plastic packaging has been increasingly used by people because it is easy to handle and has multi-purpose uses.

However, it should be noted that these plastics have as many disadvantages as advantages for the populations and the environment. In Cameroon, waste from the use of plastics constitutes about 10% of the 6,000,000 tonnes of municipal waste produced annually, i.e. about 600,000 tonnes per year[1]. This waste is, for the most part, poorly managed due to the non-existence of efficient sorting and collection systems as well as the significant increase in the number of manufacturers and importers of such packaging. Several actions have been taken to curb the resulting health and environmental effects. It is in this wake that the Ministry of Environment, Protection of Nature and Sustainable Development (MINEPDED) has set up a legal arsenal to combat pollution in general and the proliferation of non-compliant plastic packaging.

Given the specificity of the issue to be addressed, the Government has initiated the development of the national strategy to combat plastic pollution.

This strategy is the result of collaboration among several stakeholders as shown in the actantial diagram in figure 2.

[1] MINEPDED ; 2019

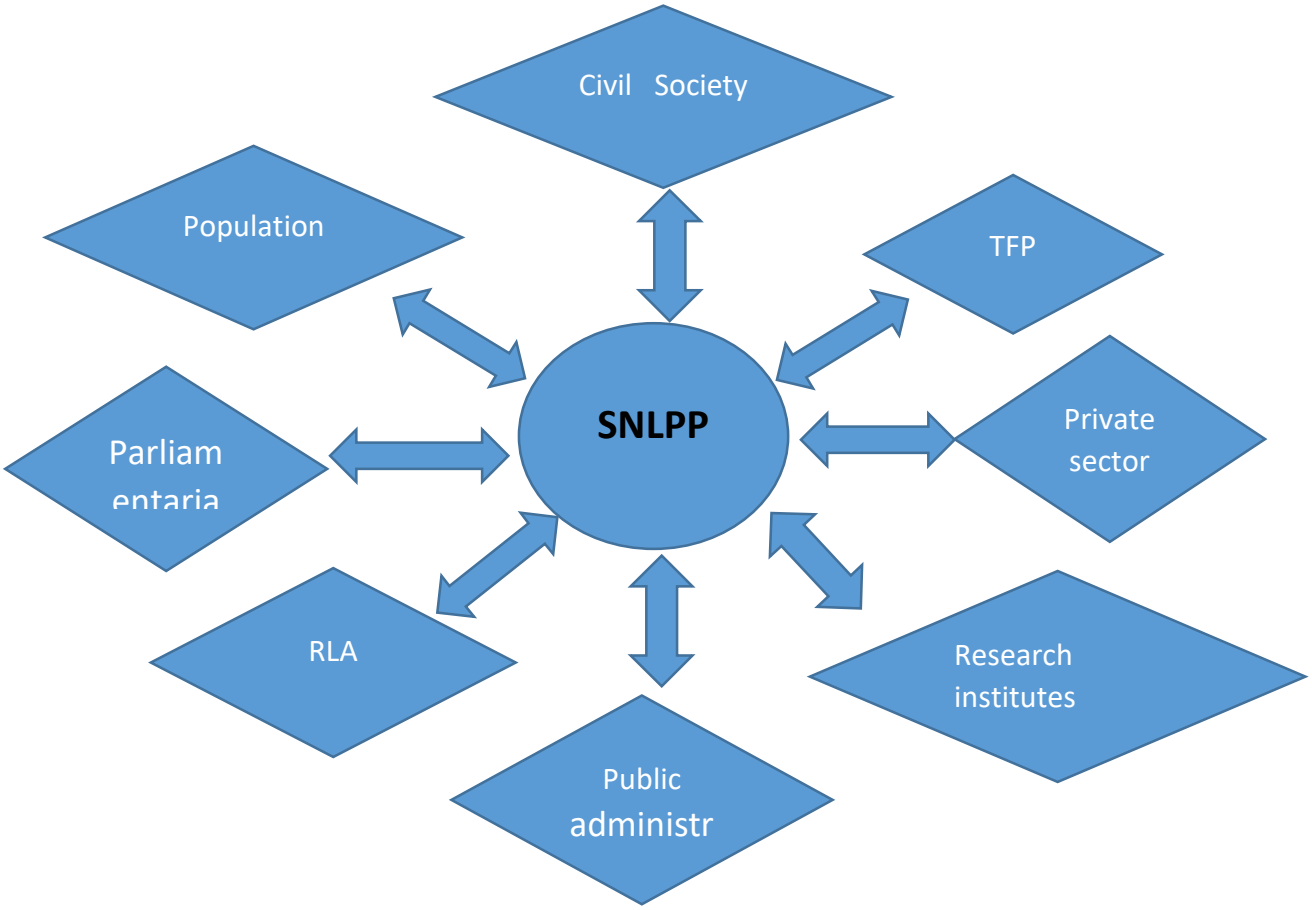


Figure 2: Stakeholder diagram for the response to plastic pollution

The specificity of the issue calls for the full participation of several categories of actors from the public and private sectors and at different levels of the societal pyramid, whose role will be specified in this document.

The national strategy to combat plastic pollution is a document which falls within a context that combines a methodological and structured approach based on an analysis of spatial, administrative, human, environmental and economic data, as well as the background of the Cameroon government's concerns for plastic management in general. The starting point for the elaboration of this strategy is conducting a situational analysis of the fight against plastic pollution at both national and international levels. This situational analysis takes into account a number of stakes, including the presence, nature and functioning of the waste management system.

I.2- Justification and challenges for developing a strategy to combat plastic pollution

In Cameroon, the issue of improving the waste management system stems from certain planning related difficulties, such as the lack of control over the quantities of plastic waste generated at the level of a given spatial unit. In the context of decentralization, the problem has proven to be of increasing concern insofar as feedback to the central level is not always

obvious. This explains the difficulty in defining efficient local policies and strategies in the management of plastic pollution.

A major asset or advantage would be to pool efforts within the framework of inter sector collaboration for more effective and efficient results. This requires a very high level of political coordination of actions to ensure that the latter is taken into account.

Following a survey conducted in 2011 on the inventory of plastic use in Cameroon, MINEPDED identified the scope of the problem. Thus, in 2012, together with the Ministry of Trade (MINCOMMERCE), MINEPDED drew up Joint Ministerial Order No. 004/MINEPDED/MINCOMMERCE relating to the Manufacture, Importation and Commercialisation of Non-Biodegradable Packaging. This text gave strength to the fight against the proliferation of non-compliant plastic packaging. Similarly, the organization of services at the decentralized level is specified by Circular Letter No. 096/C/CAB/MINEPDED of 10 April 2014 on compliance control and the punishment or prosecution of offenders. Also, regional and divisional coordination committees and operational units carried out effective and consensual actions that will yield convincing results. Large stocks of non-compliant plastic packaging are regularly seized and stored in the premises of MINEPDED's central and decentralized services.

These actions, which have produced significant results, have however been short-lived. Several factors can thus justify the mixed results overall. These include: insufficient funds allocated to the deployment of law enforcement teams, resistance to change in practices, the demobilization of committees due to scarce resources that come solely from MINEPDED, etc. We are thus witnessing a resurgence of non-compliant plastic packaging on the market, thereby unravelling efforts made, with consequences for the living environment and the health of the population.

In view of all these problems, it would seem imperative to find urgent solutions to overcome them. It is against this background that the Ministry in charge of the environment has stepped forward to develop a national strategy that will define the main orientations to combat plastic pollution.

II- Objectives

II.1- General Objectives

This strategy generally aims at considerably reducing the use of plastics in Cameroon.

The purpose is to propose a progressive and oriented approach to the reduction of plastic pollution with the major goal of improving the living environment through an ecologically rational management of plastic wastes produced on the national territory.

II.2 - Specific Objectives

Specifically, the strategy envisages to:

- Strengthen the regulatory framework for the fight against plastic pollution;
- Develop appropriate methods for the treatment of the said waste, its recycling and recovery;
- Propose incentives for voluntary commitment and cooperation between stakeholders for the efficient management of plastic waste;
- Propose mechanisms to develop alternatives to plastic;
- Identify potential sources of funding to optimize control actions.

III- Expected outcomes

The expected outcomes of this mission are as follows:

- a report on the current situation of plastic pollution in Cameroon is drafted in the form of a diagnostic report and validated by all stakeholders;
- Strategic axes are proposed in relation to the analyses carried out;
- An operational framework for the strategy is proposed (prioritization, actors, funding, implementation time frame, etc.);
- an implementation mechanism and a monitoring-evaluation mechanism of the NSDS is formulated;
- a strategy document is produced in English and French and validated by all stakeholders.

IV- Methodological Approach

The methodological approach adopted for the development of this strategy document is articulated as shown in Figure 3 below. It combined literature review on the subject, collection of data through questionnaires and stakeholder consultations, and the actual drafting of the various documents: firstly, the diagnostic report and the present strategy to combat plastic pollution.

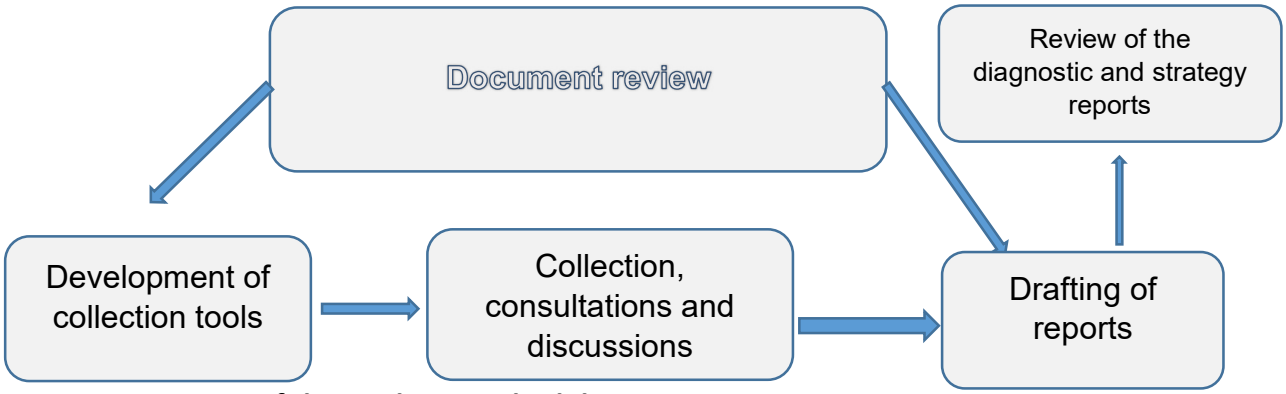


Figure 3: Diagram of the working methodology

IV.1- Description of the process

Ten (10) meetings were organised with the project owner represented by the Department of Standards and Control (DSC) through the Environmental Inspections Brigade (BIE), for the update of the work plan and the validation of the approach.

IV.1.1- Documentary analysis and literature review

This consisted of consulting existing documents and instruments on waste management in general, with an emphasis on plastic waste. To this end, articles, strategy documents at national and international level, legal and regulatory texts, documents and reports, etc. provided a good basis for the diagnosis.

IV.1.2- Data collection, consultation and discussions with key stakeholders

Following the literature review, empirical data collection tools were developed. These tools were designed according to the information sought from the three main categories of actors identified, namely: planners and regulators, implementing agencies (including Regional and Local Authorities, civil society and the private sector) and technical and financial partners. A total of 6 interview guides were developed, namely

a) ***guides addressed to planning and control institutions***

- MINEPDED, MINCOMMERCE, MINHDU, MINDDEVEL, MINADER, MINSANTE, etc.
- Specific services such as the Sub-Directorate for Awareness Raising and Environmental Education and the Sub-Directorate for Management and Local Partnership of MINEPDED.
- Administrative authorities (Senior Divisional Officers, Divisional Officers and Customs);
- Judicial authorities (Public Prosecutors and Prosecutors General).

b) ***Questionnaires for implementing agencies***

- Regional and Local Authorities(RLAs);
- Plastic production/import companies;
- Plastic waste collection and recycling companies.

c) **Consumers (wholesale and retail distributors of plastic packaging, traders and households)**

A two-level sampling of units was carried out jointly with the MINEPDED Department of Standards and Control.

- Level 1: choice of regions to be surveyed (North, Adamawa, Centre, Littoral, South West and South).
- Level 2: Choice of persons to be questioned on the basis of profiles.

Correspondence signed by the Minister in charge of the environment was sent to the supervisory bodies of the various administrations and structures involved, thus paving the way for the effective collection of data. Data collection was carried out by experts from ETS

SUNRISE. Teams were also mobilised in each of the regions surveyed. Appendix 2 presents a summary of the actors consulted.

The participatory data collection approach consisted in the integration of all stakeholders from the data collection phase, to ensure ownership of the results by all stakeholders as well as the proper execution of the diagnosis and strategy development.

IV.1.3- Data clearance and analysis

The data collected was cleared during the daily debriefing sessions and the information completed by telephone when physical follow-up was not possible. The data was analysed using the grids designed for this purpose in Microsoft Excel 2016. The information was captured from a qualitative point of view, but also quantitatively through the recurrent responses. This led to the identification of strengths, weaknesses, opportunities and threats (SWOT analysis); this analysis supported the identification of priority problems and the definition of a vision and strategic axes for their resolution in the short, medium and long term.

IV.2- Resources mobilised for the realisation of the study

SUNRISE SARL, the successful bidder of the order letter No. 00003/LC/MINEPDED/CIPM/2022 of 23 August 2022, mobilised several types of means.

- Human resources mobilised among MINEPDED staff in service in the central administration as well as in the decentralised services. Operational teams were set up in 06 regions whose target localities met the criteria of proximity to borders and/or major trade flows and exchanges. A total of 10 interviewers were deployed in the field to collect data for a fortnight.
- The material resources used in the framework of this survey consisted mainly of data collection tools and equipment temporarily mobilised by ETS SUNRISE. These included a workspace, office and computer equipment to ensure the holding of physical and virtual debriefing meetings.
- Financial resources to cover the needs, including the organisation of meetings, the costs of missions to collect data in the field, the costs of reproduction of documents, etc.

PART ONE: RREVIEW OF CURRENT SITUATION AND DIAGNOSIS OF THE FIGHT AGAINST PLASTIC POLLUTION IN CAMEROON

I. Situation overview of plastic pollution

This part gives a global overview of the situation of the fight against plastic pollution, by addressing in its first part successful experiences at both European and African levels. In its second part, it focuses on Cameroon by presenting an overview of the biotic and abiotic factors and the specificities of the fight at national level.

I.1- General Overview of the fight against plastic pollution

Plastics are today one of the major environmental issues of the beginning of the 21st century. The harmful effects of the pollution it generates are devastating on all components of the environment.

The United Nations Assembly on environment prescribes an enhanced multilateral collaboration to facilitate access to technology, capacity building with sharing of knowledge and scientific and technical cooperation.

Apparently, some governments, each in their own way, have for more than a decade taken measures of various kinds, ranging from legal to operational, to combat plastic pollution.

Each of these countries is putting in place its own mechanisms and tools to protect the environment in order to deal with plastics without being condemned to it.

The history of plastics reveals that although their consumption and use dates back to many years before Christ (plastic properties of rubber, amber, horn and tortoise shell), more than half of all plastics were manufactured from 2005 onwards. The production and consumption of objects and products made from these materials has accelerated at an unprecedented rate, reaching record production rates since this year. For example, the amount of plastic produced in 2018 alone was more than 360 million metric tons, an increase of more than 3% compared to 2017[1].

Thus, because it still has many benefits, global plastic production is constantly increasing significantly each year.

However, the first reports or complaints of threats posed by plastic waste to marine ecosystems started in the 1960s-1970s, resulting in the first scientific research on the subject. The ensuing awareness led, in the 1980s, to the first international conferences geared towards finding a solution to the problem.

The diversity of properties and possible uses of plastics, combined with their strength and lightness, have made them a favourite or preferred material in many sectors (packaging, medical, construction, trade, etc.). The use of plastics has grown exponentially since the 1950s, reaching over 400 million tonnes per year[2].

In all countries, collection system failures, losses, cultural resistance and civic irresponsibility lead to plastic waste being transferred to and accumulating in the natural environment. Many studies have been published attesting to the presence of plastic waste, including those smaller than 5 mm (known as micro-plastics) in oceans and seas around the

world, even in the most remote areas. Plastics are therefore present everywhere, in both aquatic and terrestrial environments. Today, the ubiquitous presence of plastic waste at sea and on the coast has become a major public, scientific and regulatory concern in many countries around the world. Each year, just over 8 million tonnes of plastic end up in the oceans. According to the latest estimates from the Organization for Economic Co-operation and Development[3], global plastic production has skyrocketed from 2 million tonnes in 1950 to 460 million tonnes in 2019, generating 353 million tonnes of waste, of which less than 10% is currently recycled and 22% is dumped in landfills, burned in open fires or discarded in nature.

Greenhouse gas emissions associated with the production, use and disposal of plastics are projected to account for 15% of allowable emissions by 2050, as part of the goal to limit global warming to 1.5°C. [4].

In the face of what is considered to be an environmental scandal, governance systems are struggling to find effective solutions to the problem of pollution from these types of waste. Rethinking the end-of-life cycle of this material, yet so practical, is therefore becoming a very important issue for many countries and the international community.

Since the end of the 1990s, international efforts to reduce the impact of plastic consumption around the world have multiplied. From 2002 onwards, after the Rio+10 conference, a growing number of countries started to implement measures to limit the marketing of single-use plastic products. This number has more than doubled in the last five years.

At the European level, for example, some countries have set ambitious targets. By 2025, Austria has set itself the target of reducing single-use plastic packaging by 20% and reusable beverage containers by 25%. In Portugal, the aim is to reduce by 30%. packaging placed on the market by 2030. In Germany, large restaurants and fast food outlets have been obliged to offer reusable alternatives for take-away food by 2023[5].

Representatives of 175 nations committed in early March 2022 to develop a legally binding agreement to prevent and reduce plastic pollution by the end of 2024. It is envisaged that an intergovernmental negotiating committee will be set up with the aim of presenting an instrument that addresses the challenges associated with the entire life cycle of plastics (production, use and disposal). This international approach has been called for by many actors in recent years, including scientists working on the subject. A figure of $1000 billion per year represents the global trade in plastics, i.e. 5% of global trade in goods. This figure is 40% higher than previous estimates and concerns almost all countries[6]. Primary forms of plastics account for the largest share of trade by volume (56%), followed by intermediate forms (11%), intermediate products (5%), final manufactured products (21%) and waste (2%).

For some plastics, such as synthetic textiles and rubber tyres, up to 60% of their overall production volume is traded internationally. In 2018, trade in primary plastics amounted to $348 billion for some 196 million metric tonnes, or nearly 45% of global primary plastics

production. For the other categories, trade is less significant, with a larger share produced and consumed domestically[6].

The increase in plastic products and waste affects all continents. In Africa, the factors that explain these developments are multiple: the emergence of a new middle class, the disappearance of traditional shops and markets and of handicrafts in favour of the large-scale distribution of industrial products, and the lack or failure of waste management infrastructures. In response to this problem of plastic pollution, many African countries have enacted laws to regulate the use of plastic. Currently, Africa is the continent with the highest percentage of countries with bans on plastic use (63% of African countries, i.e. 34 out of 54 countries). But legislation is far from being harmonised, and decisions to ban plastic in some countries do not have a large-scale impact because there are still many countries where plastic production and consumption are high.

Nearly 125 million tonnes of Municipal Solid Waste (MSW) were generated in Africa in 2012, a figure that will double by 2025[7]. The increase in the volume of waste in Africa will be so great that any decrease in waste generation in other parts of the world would be offset by Africa.

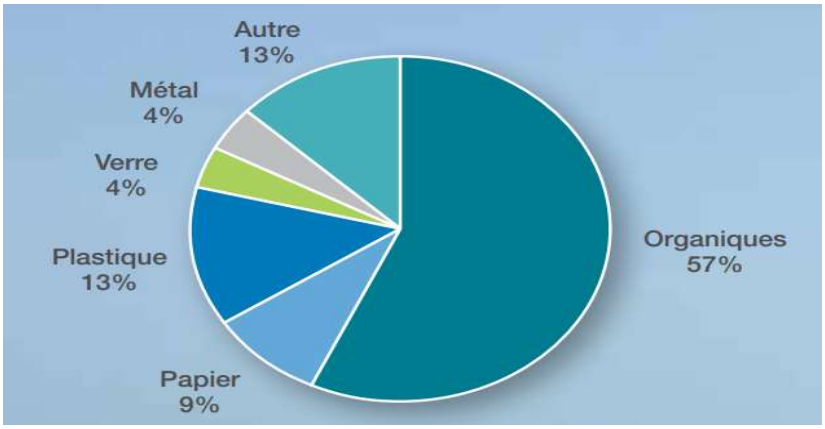


Figure 4: Composition of MSW in Africa, south of the Sahara

Source: Hoornweg and Bhada-Tata (2012)

In addition, waste collection services in most African countries are inadequate. The average rate of MSW collected is only 55%.

More than 90% of the waste generated in Africa is disposed of in uncontrolled dumps and landfills with open burning. In total, 19 of the world's 50 largest dumping sites for all types of waste are located in Africa, all in Sub-Saharan Africa. Averagely, 13% of MSW generated in Africa is plastic waste and 57% is organic waste. Most of this waste is currently dumped haphazardly and would therefore represent a significant socio-economic opportunity for the countries concerned.

Indeed, recycling is gaining momentum in Africa, driven more by poverty, unemployment, and socio-economic needs than by the public and private sectors. It is estimated that 70-80% of MSW produced in Africa is recyclable, yet only 4% is currently being recycled. Informal waste collectors are quick to recover useful objects at a very low cost for municipalities and private companies[8].

I.2- Situation of the fight against plastics

I.2.1- Case of France

In February 2020, France adopted an anti-waste law for a circular economy. Since then, there has been a real increase in awareness despite the fact that there are still economic, technical and regulatory limitations associated with the new circular economy framework defined by this law. In 2021, for example, 778,000 tonnes of plastic waste (23% of all plastic waste in the country) were collected for recycling[9]. This value is slightly above the 19% achieved in 2020 and is sufficient proof of the positive impact of the reinforced regulation. The law is based on several main guidelines:

- Reducing waste and moving away from disposable plastic. The law sets a target of 100% recycled plastics by 2025 and an end to the marketing of single-use plastic packaging by 2040. Several measures to reduce single-use plastic are introduced. In 2021, a ban on straws, disposable cutlery, fidget spinners, expanded polystyrene boxes in fast food restaurants (kebab boxes), free distribution of plastic bottles in companies, etc. In 2022, a ban on plastic packaging for fruits and vegetables weighing less than 1.5 kg, obligation to have water fountains in establishments open to the public, etc. In 2023, a ban on disposable tableware in fast-food restaurants for meals served on site, etc.
- Better consumer information. Consumers information on the environmental characteristics of products offered for sale (incorporation of recycled material, durability, etc.) is harmonized. A voluntary environmental or social display system is introduced for all goods and services companies. From 2022, companies putting on the market products containing endocrine disruptors must inform the public of the list of these disruptors. In order to act against planned obsolescence, certain electrical and electronic equipment (such as washing machines or vacuums) must, from 2021, include a repairability index (a score out of 10). A durability index (reliability, robustness of the product, etc.) will also be introduced in 2024. The text completes the current consumer information system on the sorting process. It is also planned that the colour of sorting bins will be harmonized throughout the country by the end of 2022.
- Act against waste, produce better. The destruction (incineration and landfill) of unsold new non-food items, such as clothing, shoes, beauty products, books or household appliances, is prohibited. As a matter of principle, in order to prevent medicines from being thrown away, the sale of individual medicines has been permitted since 1 January 2022. Similarly, in order to limit the consumption of thermal paper, an amendment has proposed a ban on the systematic printing and distribution of till receipts and bank card receipts, unless the customer requests otherwise. Solidarity-based re-use funds are created to support resources and all the associations working in this field. Bulk sales are encouraged, on the basis of amendments by parliamentarians. Public administrations are subject to new "green" obligations, such as the inclusion of circular economy clauses in public purchases from 2021.
- Fight against illegal dumping. The "polluter pays" principle, which makes the manufacturer or distributor of a product responsible for financing its end-of-life, is

strengthened. This is the extended producer responsibility (EPR). New families have been created. Producers subject to the polluter-pays system must draw up five-year eco-design action plans to make their products more recyclable. Other measures have been introduced to combat illegal dumping: fines of up to 15,000 euros, impounding of the vehicle used to commit the offence, strengthening of the special police powers of mayors, etc.

In April 2021, an implementation decree targeting the issue of single-use plastics was developed for the period 2021-2025. Three targets are set by this decree:

- a 20% reduction target for single-use plastic packaging by the end of 2025, at least half of which will be achieved through reuse;
- a target of 100% reduction of "unnecessary" single-use plastic packaging, such as plastic blister packs around batteries and light bulbs, by the end of 2025;
- a target of 100% recycling of single-use plastic packaging by 1 January 2025 and, to achieve this, a target that single-use plastic packaging placed on the market should be recyclable, should not interfere with sorting or recycling chains, and should not contain substances or elements that could limit the use of the recycled material.

Several other decrees specify the methods of controlling the production, distribution and use of plastic since this 2020 law.

In April 2022, France adopted a national strategy for the reduction, reuse, re-employment and recycling of single-use plastic packaging, known as the "3R Strategy". Through the achievement of these reduction, reuse and recycling targets in the short term (2025), it plans to put an end to the marketing of single-use plastic packaging by 2040.

In this strategy, the sectoral or general measures needed to achieve the above-mentioned targets are clearly identified. These measures include mobilization of extended producer responsibility channels and their eco-modulations, adaptation of rules on marketing and distribution of packaging and the use of possible economic tools.

In concrete terms, this strategy has two main objectives, one short term and one long term:

- In the short term, it is a question of determining priorities for action, concrete measures to be implemented, whether they are cross-cutting or sectoral, to achieve the objectives set by the 3Rs decree in 2025, and in particular a 20% reduction in single-use plastic packaging by the end of 2025, at least half of which will be achieved through resorting to reuse and recycling. It is also involves aiming at a 100% reduction in unnecessary single-use plastic packaging by the end of 2025.
- In the long term, the opportunities, constraints, brakes and levers associated with the prospect of ending the marketing of single-use plastic packaging in 2040 will be explored in order to set the first milestones and identify the steps to be taken to steer France in this direction.

I.2.2- Case of Rwanda

Rwanda is a forerunner in the fight against plastic pollution in Africa. In 2004, Rwanda had already banned the production, import and use of polyethylene bags. The country reiterated this desire to see its entire population abandon plastic carrier bags by adopting a new law in 2008 banning the manufacture, import, use and sale of polyethylene plastic bags. This policy option or direction was confirmed in October 2019, with yet another new law banning the manufacture, import, use and sale of plastic bags and single-use plastic objects that the country enacted.

The success of its fight against plastic pollution would be a vector for development in terms of mobilizing funds and implementing ecotourism projects. The secret of this success lies in three points:

a) *An enabling legal-regulatory and political framework*

The national plastic pollution control laws in the Republic of Rwanda have contributed greatly to its success in eradicating polyethylene materials from its territory.

Indeed, the introduction of Law No. 57/2008 of 10/09/2008 relating to the Prohibition of Manufacturing, Importation, Use and Sale of Polythene Bags in Rwanda was a major step. This law is particularly innovative because its articles 2, 3, 4, and 5 spell out a set of specific aspects allowing a contextualisation of the legal situation of the fight against plastics. Thus, it:

- addresses for example the issue of redefining "plastic" in accordance with Rwandan law; notes that plastic, according to this law, is "a synthetic material of low density, composed of several simple chemical molecules called ethylene of chemical formula CH2 = CH2";
- requires the development of guidelines for persons wishing to manufacture, import and export or use plastic carrier bags and single-use plastic articles or to package goods in plastic and single-use plastic articles in exceptional circumstances;
- establishes an environmental management body, the Rwanda Environment Management Authority (REMA), which is responsible, among other things, for considering applications for authorization to manufacture, import and market products in single-use plastic packaging;
- proposes a specific sanction regime for non-compliance with the provisions of the law, through REMA and the competent judicial bodies;
- provides for the imposition of an environmental tax on imported single-use plastic articles and products packaged in plastic;
- emphasises Extended Producer Responsibility (EPR) not only in terms of taxation but also in terms of requiring the collection and recycling of single-use plastics;

In Rwanda, the political support of decision-makers, convinced that the success of the eradication of plastics depends first and foremost on political will, on the willingness of every citizen to comply with the regulations, and also on all neighbouring countries taking

the same decision (given that contraband or smuggling in neighbouring countries hampers efforts to implement any initiative to combat this type of pollution), has encouraged other East African countries to follow their example. As a result, the East African Community, under the leadership of Rwanda, has enacted a law banning the use and import of plastic bags into member countries of the community. The law states, among other things, that "a country that violates this law shall pay a fine of US$50,000 in addition to limited sanctions to prevent member countries from importing environmentally hazardous substances".

b) *Effective national awareness and enforcement*

Awareness raising activities are organized monthly throughout the country by all communities in Rwanda. Prevention activities take place in all businesses and commercial areas as well as in schools, health centres and all public and private structures.

The Rwandan government launched the "plastic reform in Africa" movement by banning plastic bags in 2008. Through the administrative police, the Rwandan government plays the role of a regulatory watchdog, on the one hand by raising awareness of the harmful effects of the use of plastics and the possible alternatives, and on the other hand by carrying out control missions in the field.

The Rwandan government has also created the Rwanda Environment Management Authority (REMA), which has made it possible to launch a major information campaign in the fight against plastic pollution.

However, on analysis, the Rwandan government's policy has been more coercive, even repressive, than encouraging. Although it launched numerous information campaigns before and after the 2008 law, the Rwandan government has mainly used the hard approach, multiplying inspections, fines and even prison sentences and inviting citizens to alert the police in case of illegal sales. It has also imposed large "community collections" of plastic bags on the population as part of "Umuganda", a scheme that enlists the working-age population once a week.

In Rwanda, smugglers and those from neighbouring countries are constantly competing with such inventiveness or ingenuity to bring plastic bags into the country, despite the rigour of the law, which firmly condemns the trafficking of plastic bags. Checks are numerous and smugglers are relentlessly pursued at the border.

c) Strengthening and promoting public-private partnerships

In its Single-Use Plastics Ban Act 2019, through which a strict deadline was given to companies to gradually clear their stocks and switch to new business models of plastic production, emphasis was placed on strengthening public-private partnership as a new approach to completely eliminate single-use plastics in the country.

This public-private partnership has been set up to help meet the financing needs for the conversion of affected companies and collection of plastic waste from large businesses such as the beverage and cosmetics industries.

The partnership addresses single-use plastic issues in a comprehensive way, including collection, recycling and treatment. It lays the foundation for effective cooperation in the fight against plastic waste and single-use plastics. Thus the partnership between REMA and

the private sector federation is implemented in a five-year project on sustainable management of single-use plastics. As part of this effort, approximately US$706,000 was raised from the private sector to address harmful plastics. The collaboration provides a quasi-sustainable solution whereby the private sector supports financing efforts in terms of collection, processing, recycling of single-use plastics while REMA provides the necessary technical support and raises awareness on efficient management.

Rwanda's resources in the fight against plastic pollution can be mobilised through:

- The Rwanda Green Fund (FONERWA) in charge of financing incentive activities for the promotion of sustainable development;
- Taxes related to the imposition of charges on operators in the plastic chain;
- Endowments.

Several alternatives to plastic are proposed and used. These include the use of glass, paper and bamboo straws to replace plastic.

Overall, the results of the plastic pollution control policy are considered highly positive by many observers. The country's cities are cleaner and less polluted, natural and agricultural areas are better protected, not to mention the better functioning of water drainage systems.

I.2.3- Case study of Chad

In Central Africa, the very first telling example was that of Chad. Contrary to the approaches used by France and Rwanda mentioned above, the case of Chad is rather singular. Indeed, it is the Ndjamena City Council that embarked on the fight against plastic pollution commonly called "lédas", thanks to the municipal by-law No. 138 of 8 June 2010, which has become historic in Chad.

Indeed, frustrated with the sight of plastic packaging waste hanging on trees or suffocating the soil, the Mayor of the Chadian capital declared war on plastic bags in June 2010 with the aforementioned decree. This was a success, as two years later, most of the inhabitants of Ndjamena refused to receive their purchases handed to them in "lédas". To do their shopping in the Chadian capital, they went out with their baskets or their shopping bags.

As a reminder, the import of 'lédas' into Chad was banned in 1993, without much success. The Ndjamena municipality came galloping back a few years later by taking measures in 2008 to prohibit their sale and use, without much success either. It is only by doing it the hard way, that the then Mayor succeeded in the fight from 2010 to 2013.

For months, police officers patrolled the markets day and night without respite. Every plastic bag found was confiscated, and its owner - whether a trader or consumer - was taken to the police station. The distribution of 'lédas' is now punishable by up to one year imprisonment and a fine ranging from 50,000 to 300,000 CFA Francs (76 to 457 euros). At the same time, large-scale awareness-raising campaigns have been organized, with television spots in markets, neighbourhoods and schools[10]. Given that the initiative was not quite successful in the provinces, the plastics gradually began to circulate again from the end of 2014 until 2021, when the new council executive of the city of Ndjaména once again banned the sale of mineral water in 'lédas' packaging, reminding manufacturers and sellers

to comply with the provisions of Order No. 138 of 8 June 2010 or face the penalties provided for by the aforementioned regulations.

During these three years of heavy repression, it had become difficult to see plastics littering the branches of trees or lying on the ground in Ndjamena. The environmental and health effects had diminished considerably. The plastic bags and bottles that had hijacked many riverbeds and even public places such as markets and streets had become almost invisible. Floods mainly caused by the waste that choke the drains and gutters has been greatly reduced. This situation is particularly significant in the 7th district of the city of Ndjaména which was, before the implementation of the above-mentioned Order, the perfect illustration of the consequences of plastic waste dumped in nature.

I.3- Impacts of waste pollution in Africa

Current waste management practices in Africa have economic, social and environmental impacts. The cost of inaction is significant.

Change in consumer behaviour has led to an increase in plastic consumption in Africa, which, combined with inadequate MSW collection systems, puts the continent at risk of increased marine plastic waste. If Africa does not take action to mitigate the flow of plastics (and other waste) into the ocean, this growing pollution could have greater negative impacts on coastal economies. Uncontrolled dumping of waste in urban areas is common, posing an increased risk of disease, flood and environmental pollution.

Organic waste disposal results in greenhouse gas emissions that contribute to climate change and leachate that can pollute ground and surface water.

Open burning of waste causes considerable air pollution with impacts on human health.

More than two-thirds of the more than 130 people killed recently in waste collapses in African landfills were women. It seems that waste management in Africa has so far ignored the issue of gender disparities in terms of exposure and hence vulnerability.

Africa has become a dumping ground for end-of-life items such as e-waste from developed countries. Recycling and treatment infrastructures are generally insufficient or non-existent to safely absorb this waste which has a direct impact on human health and the environment.

Although Cameroon is not among the African countries with a disorderly exponential trend in plastic waste, forecasts nevertheless suggest an increase in its production by 2025 as indicated in Figure 5 below.

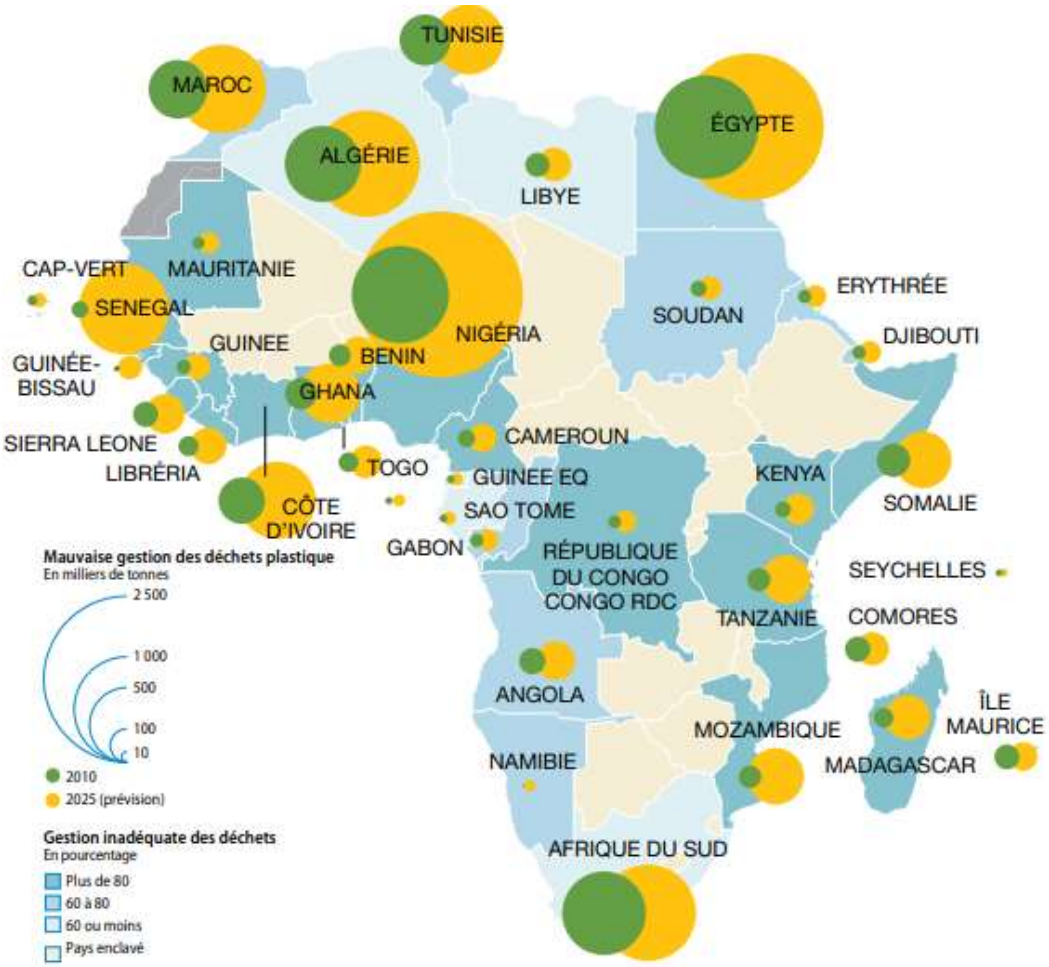


Figure 5: Poor management of plastic waste in Africa (2010 and 2025)

Source: Jambeck (2015)

I.4- Situation of the fight against plastic pollution in Cameroon

I.4.1- Presentation of Cameroon

It includes the elements of the delimited and localized physical space, related to the process of developing this strategy. The biophysical data referred to includes geographical data, relief and soils, air and climate, water resources, biotic data and living environment.

I.4.1.1- Geographical data

Considered to be a biophysical overview of Africa, Cameroon enjoys an exceptional geographical location. It is located in Central Africa, at the crossroads of Southern Equatorial Africa and Northern Tropical Africa on the one hand, and East Africa and West Africa on the other. It lies between Latitudes 2° and 13°North and between longitudes 8° and 16° East. It covers a total surface area of about 475,650 km2 of which land occupies 469,050 km2 and water 9,600 km2 (including tributaries, rivers and lakes) and has a 402 km long coastline, which opens up to the Atlantic Ocean in the South-West at the bottom of the Gulf of Guinea. Cameroon shares borders with Chad to the North-East, the Central African Republic to the East, and Congo, Gabon and Equatorial Guinea to the South. It shares a common border with the Federal Republic of Nigeria to the West. Indeed, Cameroon and Nigeria share a long land

border of over 1,600 km, stretching from Lake Chad to the Gulf of Guinea, reflecting its vulnerability to transboundary transit. These borders are a sort of weak point of entry for waste into Cameroon, as shown in Figure 6 below.

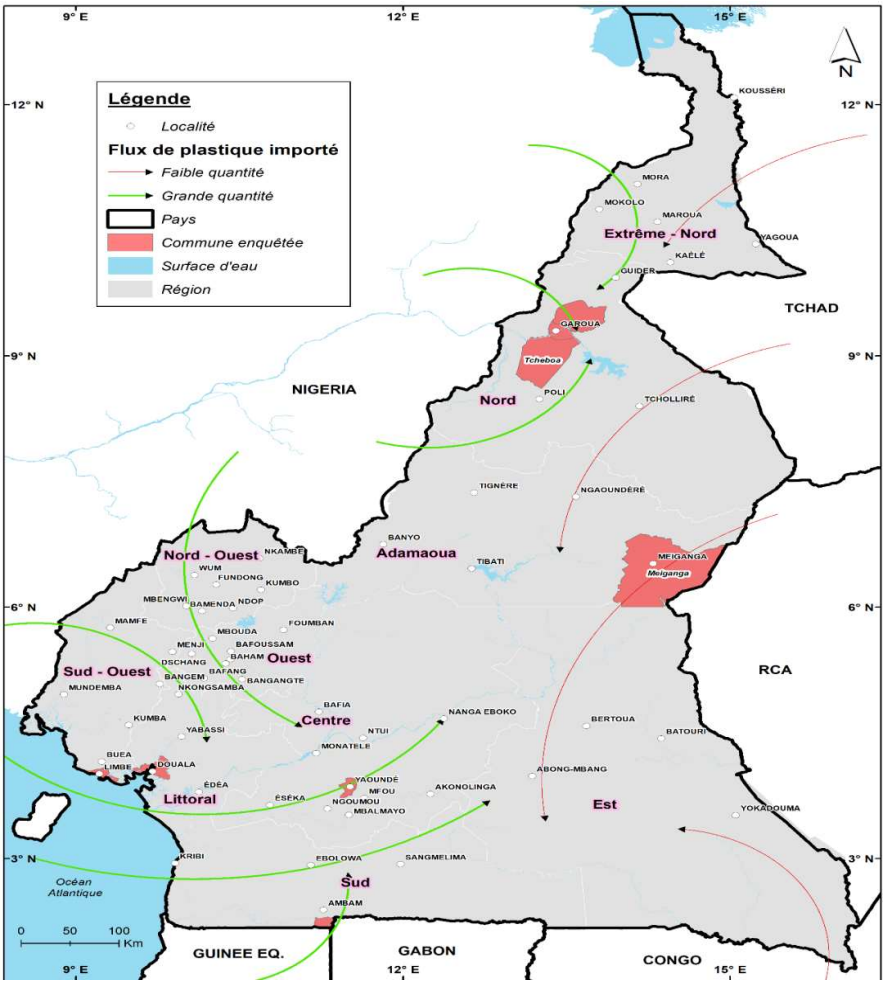


Figure 6: Likely entry routes for plastic waste

I.4.1.2- Biotic data

The biological environment in Cameroon is made up of all living organisms (plants and animals) distributed over the surface of the territory. For many years, it has been affected by the effects of anthropic activities such as cash crop farming and slash-and-burn agriculture, logging, road construction, major hydraulic works, organization and dumping of solid waste as well as untreated industrial and urban effluents.

I.4.1.2.1- Cameroon's ecosystems: major biodiversity pools

There are five main types of ecosystems in Cameroon: terrestrial ecosystems, marine ecosystems, coastal ecosystems, lake ecosystems and river and freshwater ecosystems.

- Terrestrial ecosystems: Cameroon has a variety of terrestrial ecosystems linked to the diversity of its relief and climate. These include forests, savannahs and steppes.

- Marine ecosystems: Cameroon's maritime zone covers a total area of about 650 km². It extends from the Atlantic coast to a distance of 12 miles inland. It corresponds to the exclusive economic zone (EEZ) of Cameroon.
- Coastal ecosystems: these are located on the coastline and include brackish environments, sandy or marshy beaches and mangroves.
- Lake ecosystems: these are made up of a group of lakes such as (i) crater lakes (Lake Oku, Lake Tison, Lake Bini, Lake Barombi Mbo, Lake Nyos); (ii) subsidence lakes (Lake Ossa, Lake Tison, Lake Ejagham); (iii) basin lakes (Lake Chad, Lake Fianga); (iv) artificial lakes (Lake Bamendjing on the Noun, Lake Mbakaou on the Djerem, Dschang Municipal Lake, Yaoundé Municipal Lake).
- fluvial and freshwater ecosystems: these are made up of a dense network of rivers and spread over four watersheds or river basins : the Atlantic Basin with the Nyong, Sanaga, Wouri and Moungo rivers; the Niger Basin, whose main river is the Benoué; the Congo Basin, whose main tributaries are the Ngoko, Boumba and Sangha rivers; and the Chad Basin with the Logone and Chari rivers.

I.4.1.2.2- *Flora and fauna of Cameroon's ecosystems*

The 2004 National Forest Inventory reveals that primary forest represents 19%, adult secondary forest 48%, young secondary forest 25% and swamp forest 8% of Cameroon's forest area

The fauna of Cameroon's ecosystems is also very diverse. Indeed, it includes both invertebrates and vertebrates. The invertebrates known in Cameroon include insects, molluscs and crustaceans. All five classes of vertebrates (fish, amphibians, reptiles, birds and mammals) are present in Cameroon.

The species belonging to the so-called lower branches are still very little known, whether it is insects or what is classified as micro fauna.

I.4.1.3- Relief and soils

I.4.1.3.1- Relief

The relief of Cameroon is on the whole contrasted. It comprises lowlands below 350 metres, highlands between 900 and 4100 metres, and the vast South Cameroon plateau which oscillates between 600 and 780 metres.

The lowlands cover about 16% of Cameroon's land area. They include the low-lying areas and plains. Located in North Cameroon, low-lying areas are divided into two distinct units separated by the Southern terminus of the Mandara Mountains and the Kaele bulge.

The highlands, which cover 57% of Cameroon's surface area, are unevenly distributed across the country. In the Northern part of the country, the Mandara Mountains reach an altitude of 900 metres. The Adamawa Plateau, with an average altitude of 1,100 metres, slingshot middle Cameroon from the Nigerian border to the Central African border. The Adamawa Plateau is a real "water tower" where several of Cameroon's major rivers, including the Sanaga and Benoué, originate.

The South Cameroon Plateau extends below the highlands that dominate it by a well-defined escarpment between Yoko and Linté. Between 650 and 900 m, a succession of convex hills and blunt, sometimes armoured, interfluves are found (Morin, 1979; Kuété, 1990).

I.4.1.3.2- Soils

Several categories of soils have been identified in Cameroon:

- Raw mineral soils. They are found on mountainous reliefs and are associated with soils that are not very developed and whose pedogenesis is a little more elaborate.
- Poorly developed soils. They are very varied and can be derived from raw soils.
- Vertisols. They correspond to the more complete evolution of the previous soils marked by hydromorphy and including swelling clays.
- Andosols and eutrophic brown soils.
- Fersiallitic and ferruginous soils, or tropical ferruginous soils.
- Ferralitic soils. They cover almost two thirds of the country and are located at the 8th parallel South.
- Hydromorphic soils. They play an important role in hydrology and generally cover the swampy valleys in North Cameroon and some landscapes in South Cameroon.

At the national level, the study conducted by MINEPDED in 2017 on land degradation neutrality, estimates the area of degraded land in Cameroon at more than 12,062,768 ha. Figure 7 illustrates the main lithological domains in Cameroon.

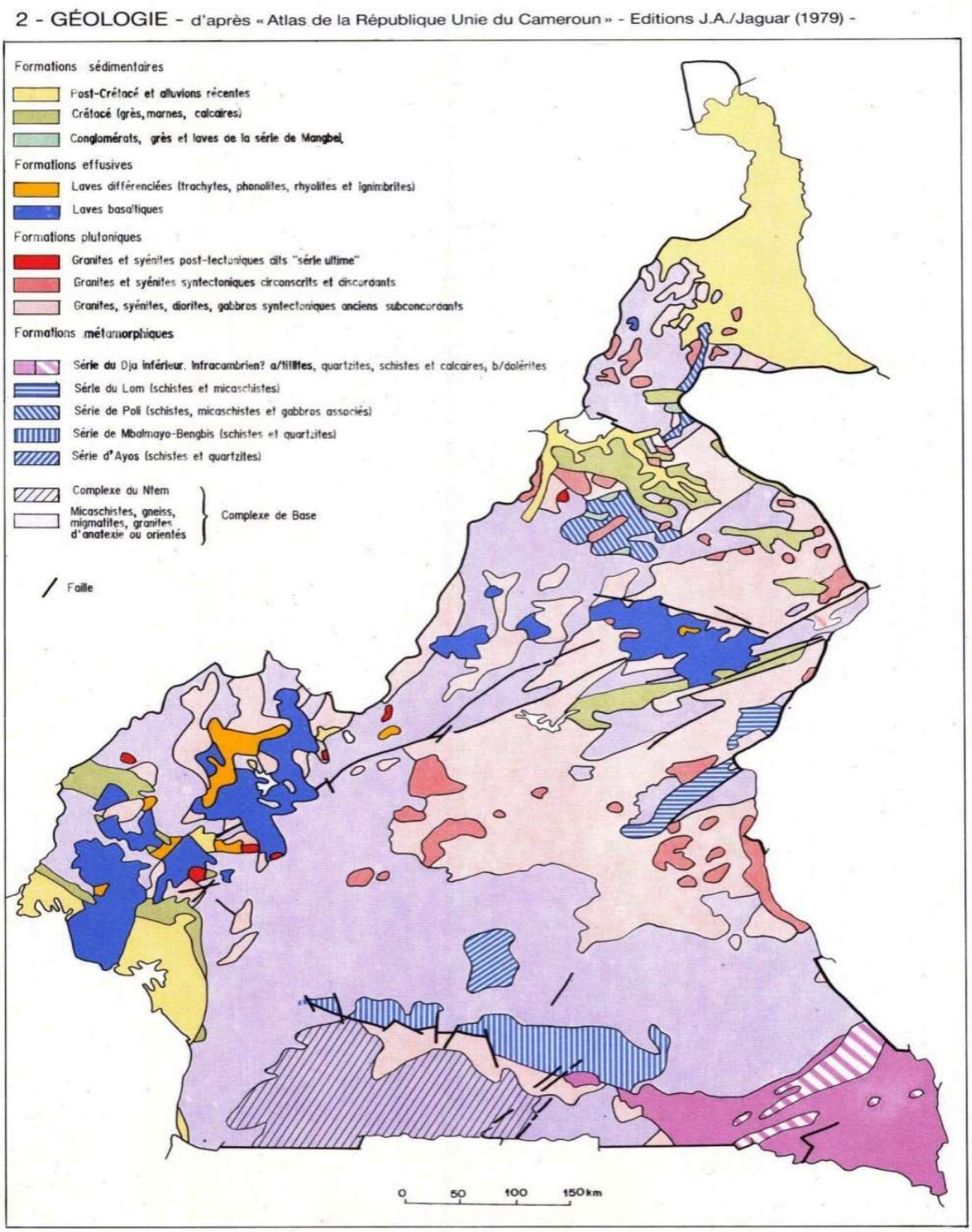


Figure 7: Geological map of Cameroon and main litho-tectonic domains

However, this distribution is influenced by tectonic dynamics marked by the existence of numerous faults. These faults are oriented in a North-East-South-East direction corresponding to the Cameroon fault line and North-West-South-East marking the limit between the Congo Craton and the Pan-African Belt.

I.4.1.4- Air-water and living environment

I.4.1.4.1- Air quality

Cameroon is faced with a lack of updated data on the current state of air quality. Existing data is fragmented and comes mainly from scientific publications and reports from international organizations.

However, air quality is under significant pressure from human activities, including industrial development, energy production and rapid industrialization, which generate a lot of pollution, including air pollution. Many wastes generated by these anthropogenic activities pose real public health issues. In 2016, Cameroon had nearly 209,482 companies, compared to 93,969 in 2009, an increase of 12%. The cities of Douala and Yaoundé respectively account for 33.4% and 23.85% of companies established on the national territory. The setting up of industrial units has inevitably been accompanied by an alteration in air quality with an impact on climate. This impact on climate and air quality is differently appreciated in each agro-ecological zone as illustrated in Figure 8 below.

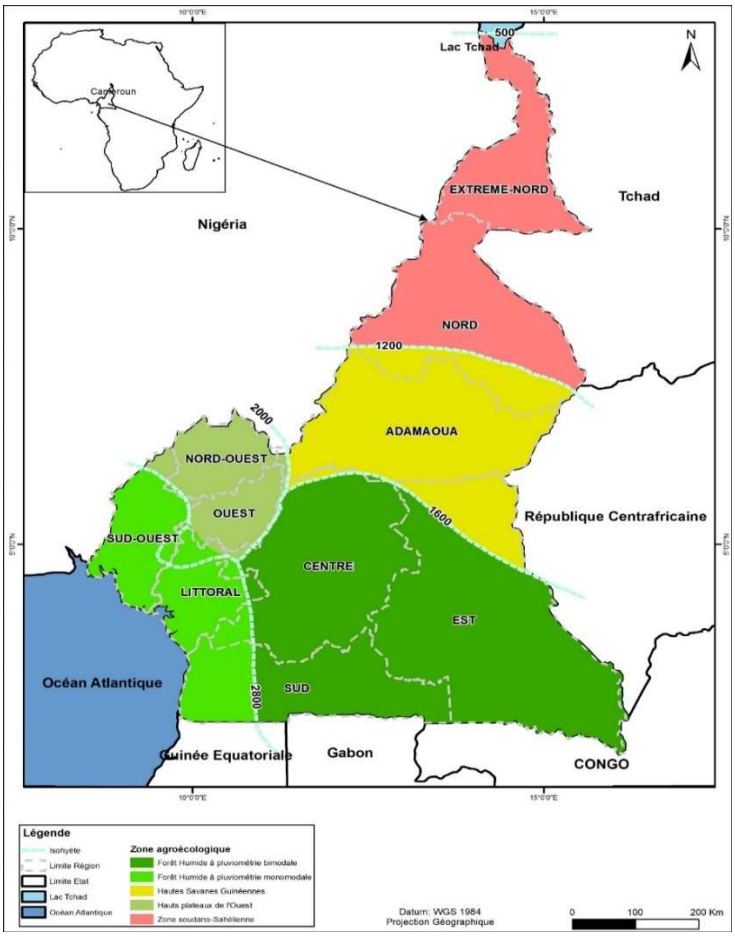


Figure 8: Location of Cameroon's agro-ecological zones

Table 1: Agro-ecological zones of Cameroon

Source: Readiness Preparation Proposal (RPP), 2013

Agro-ecological zones	Regions	Surface Areas (km^2)
Sahelian Sudan	North and Far North	100,353
Guinean high savannah	Adamawa region, Mbam and Lom and Djérem Divisions	123,077
Highlands	West and North-West	31,192
Wet forests with monomodal rainfall	Littoral and South-West	45,658
Bimodal rainforests	Centre, South and East	165,770

I.4.1.4.2 - Water and living environment

Cameroon's water resources are numerous and varied but unevenly distributed according to time, space and geological contingencies. Water resources are grouped into three main types: i) meteoric or rainwater; ii) surface water consisting of run-off water (streams, rivers, etc.) and stagnant water (lakes, swamps, ponds, etc.), and iii) groundwater.

The term living environment is generally understood to mean the developed or transformed physical environment in which people live. It refers to all the artefacts that surround people, to the land that supports various human, recreational, cultural and other activities, to rural and urban landscapes (street pattern, habitat). The development of a living environment that is favourable to the population is nowadays an issue recognized by all. The living environment is constantly changing in Cameroon. In recent decades, the environmental issue with regards to the living environment has been to review the evolution of towns and villages, the infrastructural framework and living conditions. Planning of urban and infrastructural development and living conditions is now assessed in terms of taking into account environmental externalities.

I.4.2- Current situation of urban planning in Cameroon

The 2004 law on urban planning establishes four types of urban planning documents including the UMP, LUP, PSU and SP. The current situation is characterized by complete uncertainty surrounding the development of these documents; which constitutes a constraint to the harmonious development of cities.

I.4.2.1- Growth of urban demography

This is one of the underlying determinants of urban planning difficulties in Cameroon. The problem varies from one city to another and mainly concerns the two metropolises Yaoundé and Douala and some regional capitals. The average annual growth rate of the urban population fell from 5.7% between 1976 and 1987 to 4.2% between 1987 and 2005, to settle at 4.1% during the period 2005-2011.

I.4.2.2- Environmental constraints related to waste management

The spatial expansion of Cameroon's cities raises, among other things, the issue of urban planning. In a context of accelerated decentralization, metropolisation in the regional capital and strategic cities (Kribi, Limbe), the Cameroon cityscape reveals the overall problem of controlling the sprawl and management of cities. Human settlements and the living environment (in the city more than in the countryside) deal with a wide range of waste. There are generally three types: household waste, industrial waste and health care waste. The issue of plastic waste is common to all these categories of waste.

Holistically and concomitantly, increasing urban population and changing consumption patterns are coupled with the lack of articulation of relevant policies to address the root causes of the waste management problem.

I.4.2.3- Socio-economic context

Public policies developed and conducted by government contribute to the development of some sectors of activity: agriculture, livestock, forestry, mining, tourism, water and energy, etc. They illustrate a real paradox, if not a dilemma, in achieving the country's economic emergence. The dilemma is how to reconcile the demands of socio-economic development and environmental issues. Indeed, environmental issues have become increasingly important in the current context, marked by concerns about climate change, urban waste management and the preservation of natural resources, particularly forests and mines. They review development trajectories at various scalar levels and undoubtedly constitute an important challenge for Cameroon.

Consequently, poverty tends to take root in Cameroon's socio-economic landscape. The poverty rate moved from 40.2% in 2001 to 39.9% in 2007 and 37.7% in 2014; it was 56% in 1996 (NIS, 2017-ECAM 2; ECAM 3; ECAM 4). However, this evolution shows spatial disparities according to the urban-rural gradient and regional characteristics. While the incidence of poverty is declining in urban areas, it is increasing in rural areas. In 2014, 56.8% of rural inhabitants were poor, compared with 55.0% in 2007. Similarly, the Far North, East, North, North West and Adamawa regions were the most affected by poverty in 2014 (NIS, 2017). Poverty rates in these regions varied from 40% to 75% in 2014, compared to 51.0% to 66% in 2007.

I.4.2.4- Situation of plastic pollution in Cameroon

It is estimated that around 1300 tonnes of plastic waste is dumped in Cameroon every day. The 2019 MINEPDED report reveals that about 600,000 tonnes of this waste are produced annually, i.e. 10% of the global waste production which is, as mentioned above, about 6 million tonnes each year[2].

The statistical yearbook of the same Ministry, 2019 edition mentioned that the import volumes of plastics between 2015 and 2018 (in tonnes) were 97,841 for 2015, 100,407 for 2016, 100,133 for 2017 and 107,743 for 2018 respectively[3].

[2] *MINEPDED's Speech, 2019: Annual conference of central and decentralised services.*
[3] *MINEPDED Statistical Yearbook, 2019.*

In 2017 alone, about 1,089.15 tonnes were managed in an environmentally friendly manner by being recycled. In 2018, however, this figure was 748.96 tonnes (MINEPDED statistical yearbook, 2019)[4].

The policies applicable in Cameroon in terms of the fight against plastic pollution stem from two types of sources. International sources consisting of numerous international conventions, mandatory resolutions of international organizations, and a number of non-mandatory texts (recommendations, declarations of principle and action programmes) whose importance cannot be ignored. The national sources are made up essentially of standards set up by the legislator and their various regulatory instruments that make them applicable. All these legal norms have been outlined in the part dealing with the legal framework in this strategy document.

I.4.2.5- General Classification of plastics and national production of their waste in Cameroon

Plastics refer to any material made up of artificial or synthetic polymers, with the exception of natural polymers which have not been chemically modified. They were invented in the 20th century and replaced traditional materials such as wood or metal. Research on improving and diversifying their properties has led to a wide range of their uses. Plastics are light, hygienic, durable and customized. All these qualities have made plastics irreplaceable and ubiquitous in everyday objects.

There is a wide variety of plastic products which can be grouped into three main categories of synthetic materials: thermoplastics, thermosets and elastomers, which are grouped into several large families[5].

I.4.2.5.1- *Thermoplastics*

Thermoplastics soften under the effect of heat. They become soft and malleable and harden again when cooled. As this transformation is reversible, these materials retain their properties and are easily recyclable. Table2 below shows the different pictograms for the different types of plastics.

[4] *MINEPDED Statistical Yearbook, 2019.*
[5] *Paprec, "Recyclage des déchets plastiques : tout comprendre."*

No.	SYMBOLS	DESCRIPTION	EXAMPLES:
1		This is a polymer obtained by the polycondensation of two components: dimethyl terephthalate and ethylene glycol. The chains are arranged to form strong fibres. PET is mainly used for the manufacture of textile yarns and bottle films. However, this plastic becomes soft at medium temperatures. PET is 100% recyclable and in principle does not lose its basic characteristics, so it can be used again and again to make high-quality products. A new PET bottle can therefore contain up to 100 per cent recycled PET.	
2		It is used for rigid plastic objects. It is found, for example, in bottles and flasks, bin liners, crates, pipes, drums, toys, household utensils, Tupperware boxes, jerry cans... Some plastic bags are made of HDPE: when the bag crumples easily under the hand, with a cracking noise and returns spontaneously to its original shape, it is HDPE. If the bag feels "greasier", crinkles noiselessly and is easily pierced with the finger, it is LDPE. HDPE is fully integrated into the worldwide recycling system.	 150L OSNP high density polyethylene drum with full opening
3		It is obtained by the polymerisation of vinyl chloride monomers CH2=CH-Cl. This polymer with the formula - (CH2 - CH - Cl)n - is the result of a chemical reaction between ethylene and hydrochloric acid in the presence of oxygen. Rigid PVC, which has a smooth, hard appearance, is used for sewer pipes. Soft PVC, which is used to cover certain parts such as pliers handles, has a shiny appearance. After PE, it is the most widely used plastic in the world.	 Polyvinyl chloride (PVC) water pipe

4

LDPE is used in a wide range of applications. Its density is lower than that of water. It has good chemical resistance and is odour, taste and chemical neutral for foodstuffs. It is transparent, can be easily processed and is very suitable for welding. It has a very long life due to its high stability but it is recyclable. The main applications of LDPE are flexible products: bags, films, sacks, bin liners, flexible containers (ketchup bottles, shampoo bottles, cosmetic cream tubes, etc.).

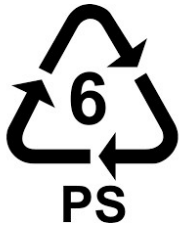
Low density polyethylene hose

5

This is a very versatile polymer that is used both as a thermoplastic and as a fibre. It is very easy to colour and does not absorb water. It is widely used as moulded parts in automotive equipment (bumpers, dashboards, interior trim) and in garden furniture. It is used to make dishwasher-safe food containers because it does not melt below 160°C.

Polypropylene (PP) Tabernacle

6



Polystyrene is a hard, brittle, transparent plastic. It is a widely used industrial product with a wide range of uses. It is easily recognised by a whitening on the stress areas before breaking or by its black smoke and characteristic smell when burnt. It is used to make furniture, packaging, ventilation grills, toys, plastic cups, etc.

Polystyrene plastic bowl

7

These are polymers that offer a good compromise between mechanical, thermal and chemical qualities. Polyamides are used to make moulded parts in household and automotive equipment, carpets and rugs, taps, locks, gears, textiles (lingerie and curtains). The main disadvantage of all polyamides is that they are hydrophilic, which limits their use for certain mechanical parts.

I.4.2.5.2- Thermosets

Thermosets are plastics that take on a definitive shape on first cooling. Reversibility of shape is impossible because they do not soften once they are moulded. If the temperature is too high, they degrade and burn (carbonisation). The molecules of these polymers are organized in long chains in which a large number of strong, three-dimensional chemical bonds cannot be broken and become stronger when the plastic is heated. The thermoset material always retains its shape because of these cross-links and the strong bridges that prevent slippage between the chains. Thermosets account for 20% of the plastics consumed worldwide. The best known are:

a) Polyurethanes

These materials have a wide range of characteristics, with a great diversity of textures and levels of hardness. They are used to make mattresses, car seats, dashboards, roller skate wheels and ski boots.)

b) Unsaturated polyesters

They are obtained by a condensation reaction between different polyacids and glycols (ethylene glycol, propylene glycol). These products, called epoxides, are chemical substances with an oxygen bridge on a carbon-carbon bond. Polyester is mainly used to make artificial textile fibres. The fabrics produced are patented under the names Dacron, Tergal or Terylene.

c) Phenoplasts

In this group, one of the oldest known plastics is Bakelite. This providential material has had countless applications in the scientific field and in the production of objects such as telephones and radios. These thermosetting resins are highly resistant to chemicals and heat. They are also electrically insulating. They can be processed by moulding and compression to make handles for pots and pans, irons and cladding plates.

d) Aminoplasts

These resinous products are mainly used for laminating plasticised textiles, chipboard for kitchen furniture and worktops.

I.4.2.5.3- Elastomers

These polymers have the same elastic qualities as rubber. An elastomer at rest is made up of long molecular chains folded on themselves. Under the action of a stress, the molecules can slide in relation to each other and become deformed. In order for the base material to have good elasticity, it is vulcanised. This is a curing and hardening process that creates a more or less rigid three-dimensional network without removing the flexibility of the molecular chains. Sulphur, carbon and various chemical agents are introduced into the elastomer during vulcanisation. Different formulations allow the production of synthetic

rubbers for specific uses. Elastomers are used in the manufacture of cushions, certain types of insulation, shoe soles and tyres.

In order to sort your waste properly, you first need to know how to recognise the different types of plastics that exist. To this end, the plastics industry introduced a plastic classification in the 1980s that enables consumers to recognise the type of plastic and thus indirectly helps them to recycle plastic waste.

The classification is in the form of an endless triangle called the Moebius triangle. This triangle indicates that the product or packaging is recyclable. However, the subtlety of this logo lies in the fact that the product is recyclable but will not necessarily be recycled because of the specific collection system in each territory. In addition, inside the triangle is a number indicating the composition of the plastic.

In the classification of plastic types, there are 7 categories of plastics. Only the first 2 categories are mostly recycled (Table 3).

Table 3: Classification of plastic types according to their recycling mode

The main recyclable and recycled plastics			
Type of plastic	**Characteristics**	**Associated products**	**Recommended recycling method**
Plastic No. 1: Polyethylene Terephthalate (PET)	Most common plastic: transparent, flexible and light	Drinks bottles, cooking oil bottles, detergent bottles, etc.	Reusing Reuse Transformation
Plastic No. 2: High Density Polyethylene (HDPE)	Opaque, rigid and solid	Milk bottles, cosmetic products, semi-rigid packaging...	Reusing Reuse Transformation
Plastics that are recyclable but often not recycled			
Type of plastic	Characteristics	Associated products	
♳ Plastic No. 3: Polyvinyl chloride (PVC)	Cannot be processed as it releases dioxins and carcinogens	Pipes, gutters, cables, some bottles, carafes, some food packaging, liquid detergent bottles, traffic cones, baby bottle nipples, garden chairs...	Reusing Reuse
♴ Plastic No. 4: Low Density Polyethylene (LDPE)	Often in the form of film rather than a container	Some plastic bags and packaging freezer bags, bin liners, clear kitchen paper or film, flexible plastic bottles	Reusing Reuse Transformation
♵ Plastic No. 5:	Mainly used to package	Trays, yoghurt pots, instant	Reusing

Polypropylene (PP)	food	soup containers, construction materials, automotive materials, but also in the manufacture of straws and caps.	Reuse Transformation
♺ Plastic No. 6: Polystyrene (PS)	Often used to package shock-sensitive	The manufacture of some toys, cutlery, packaging and white cork which is used to package and protect electronic products and household appliances	Reusing Reuse Transformation
♺ Plastic No. 7: other	Other plastics than those named 1-6 above	Plastic baby bottles, medical equipment...	Reuse
	Plastics that are difficult to recycle		
Thermosets	Reversibility of shape is impossible because they do not soften once moulded. Under high temperatures, they degrade and burn (carbonisation)	Tyres, bumpers, D3E, extension cords, etc.	Reuse
Elastomers	Rubber	Manufacture of cushions, some insulation, shoe soles or tyres.	Reuse

I.4.2.6- Other classifications of plastic types

In addition to the classification of the 7 types of plastics mentioned above, there are other ways of classifying plastics and other types of plastics. These include for example:

I.4.2.6.1- According to their size

- **Macro plastics**: object or fragment of plastic whose largest external dimension is at least millimetre.
- **Micro plastics**: nowadays one of the best known types of plastic**.** In recent years, their environmental pollution and the great danger they represent for health have been recognized. They are small synthetic particles that come from certain oil derivatives. Specifically, they are less than 5 mm in size and are ingested when eating marine products.

I.4.2.6.2- According to their biodegradability

- **Bioplastics**: produced from entirely natural or biological resources and are renewable plastics. Example: Starch for PLA (polylactic acid), sugar cane for ethylene, sugar cane for polyethylene.

- **Biodegradable plastics**: often confused with bioplastics, but in this case, these types of plastics are those that break down through the action of certain micro-organisms in specific environmental conditions. Once degraded, these micro-organisms convert the plastic into biomass, gas and water.

I.4.2.6.3- According to Cameroonian regulations, a distinction is made between

- Compliant plastics (greater than or equal to 61 microns in thickness).
- Prohibited plastics (less than 61 microns thick).

I.4.2.6.4- According to the use

- Single use plastics.
- Reusable/recoverable plastics.

I.5- Legal and institutional framework of plastic waste management in Cameroon

This part deals with the existing national and international instruments and the organizational structure of the fight against plastic pollution.

I.5.1- Legal and regulatory framework for plastic waste management

The law applicable in Cameroon in the area of plastic pollution management stems from two main sources

- international agreements ratified by Cameroon;
- instruments drawn up at national level.

I.5.1.1- At the international level

The issue of plastic waste management is rooted in commitments on solid waste management in general. It is made up of texts that deal in a general way with waste management on the one hand, and more specifically with plastic waste. These include conventions, protocols, resolutions and policy statements, as listed in Table 4 below.

Table 4: Summary of international agreements on waste pollution

No.	AGREEMENT	VENUE AND DATE	CONTENT
	International agreements ratified		
1	The 1992 Rio Conference on Environment and Sustainable Development	1992 in Rio de Janeiro, Brazil	Signed by 172 countries of the United Nations, the Agenda encourages countries to develop a model of sustainable development for the 21st century with the full participation of various strata (companies, citizens, civil society, local governments, etc.). The themes of this Agenda are diverse, including the conservation of biological diversity and the protection of oceans and seas, as well as coastal areas
2	The 2030 Agenda for Sustainable Development	2000 at the United Nations Summit in New York	Eight (08) Goals) were defined as the compass for global development until 2015. Having expired with more or less mixed results, they have been replaced by the 17 Sustainable Development Goals projected for 2030, which cover environmental, economic and social issues. The issue of plastic waste pollution can be grafted downstream to goal 14 "conserve and sustainably use the oceans, seas and marine resources for sustainable development". It is also closely linked to the achievement of SDG 3 which promotes healthy lives for all people; SDG 6 which promotes sustainable water management and sanitation; SDG 12 on changing consumption and production patterns to reduce waste through reuse and recycling; SDG 13 in relation to climate change and SDG 15 on preserving terrestrial ecosystems.
3	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	International treaty opened in Switzerland in 1989. Entered into force on 5 May 1992 and ratified by Cameroon on 11 February 2001.	It aims at: -the prohibition of the import of hazardous wastes or other wastes by informing other parties; - the prohibition of the export of hazardous wastes or other wastes to Parties which have prohibited the import of such wastes; - a ban on the export of hazardous waste and other wastes if the State of import does not give its specific written consent to the import of such wastes where that State of import has not banned the import of such wastes; - assurance by each country that the generation of hazardous wastes and other wastes within the country is minimised, taking into account social, technical and economic considerations.

4	Bamako Convention on the Ban of the Importation of Hazardous Wastes and the Control of their Transboundary Movement within Africa.	Defined in 1991 in Mali, Cameroon ratified on 21 December 1995 and the convention entered into force on 22 April 1998 in Cameroon	Its objective is : - the prohibition of the import into Africa of all hazardous wastes, for whatever reason, from non-contracting Parties. Their importation is declared illegal and subject to penal sanctions; - a ban on the dumping of hazardous waste into the sea, inland waters and waterways; - the minimization of the generation of hazardous wastes and other wastes within countries, taking into account social, technical and economic considerations
5	Stockholm Convention on Persistent Organic Pollutants	Adopted on 23 May 2001 in Sweden and ratified by Cameroon on 26 May 2005	It was amended in its annexes A, B and C in May 2009 to include additional chemical substances. This convention aims, among other things, at minimising unintentionally produced hazardous substances.
6	United Nations Framework Convention on Climate Change	One of the three conventions adopted at the "Rio Earth Summit" in 1992. Entered into force 21 March 1994, ratified 19 October 1994	It aims to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system
7	Kyoto Protocol	Established in 1995 and ratified by Cameroon on 23 July 2002	This international agreement aims to reduce greenhouse gas emissions and is in addition to the United Nations Framework Convention on Climate Change, whose participating countries have met once a year since 1995. It sets quantified commitments to limit or reduce anthropogenic greenhouse gas (GHG) emissions for 40 industrialized countries and countries in transition to a market economy, for the period 2008-2012
8	Abidjan Convention	Signed in 1981; entered into force in 1984	It concerns cooperation in the protection and development of the marine environment and coastal zones of the West and Central African region. It emphasises, through its article 7 related to land-based pollution, that the parties to the convention shall take all appropriate measures to prevent, reduce, combat and control pollution due to discharges from rivers, estuaries, coastal settlements, etc., in the convention's area of application.
	United Nations Environment Assembly (UNEA) resolutions		

1	Resolution 1/6	Marine plastic debris and micro-plastics (UNEA, 2014).	UNEA stresses the importance of the preventive approach, calls for global action on marine plastic pollution, and calls for an in-depth study to identify the main sources and possible measures.
2	Resolution 2/11	Marine plastic waste and micro plastics (UNEA, 2016)	UNEA recognizes that marine plastic pollution is a "serious global concern that needs to be urgently addressed on a global scale", highlighting the need for harmonized definitions and monitoring measures, the lack of resources within regions, and calling for an assessment within the United Nations Environment Programme (UNEP) of the effectiveness of international and regional strategies and approaches
3	*Resolution 3/7*	Marine litter and micro plastics (UNEA, 2017)	UNEA stresses "the importance of eliminating the release of litter and micro plastics into the oceans in the long term", encouraging national action and international cooperation, and establishes an open-ended ad hoc group of experts to study options for addressing marine plastic pollution from all sources, including options for international response and legally binding strategies and approaches
4	*Resolution 4/6*	Marine plastic waste and micro plastics (UNEA, 2019).	UNEA reaffirms the importance of long-term elimination of plastic waste and microplastics discharges into the ocean and further emphasises "the importance of ensuring more sustainable management of plastics throughout their life cycle in order to develop sustainable consumption and production patterns, including the circular economy", and expands the mandate of the expert group to include consideration of technical and financial resources and mechanisms and the effectiveness of an international response option.

The fight against hazardous waste has always been an international effort. This same consensual effort can be observed for the specific case of plastic waste. Most texts tend to unify international efforts and take into account the entire life cycle of plastics: production and consumption, but also management, treatment and reduction of waste. Although this momentum of solidarity seems to be prospering for many countries which have, for example, improved their legal framework, efforts are still expected from many developing countries, including Cameroon which is a member of the above-mentioned agreements, but whose regulatory framework for the fight against plastic packaging was initiated about 10 years ago and deserves to be strengthened, as does the waste management system.

I.5.1.2- At the national level

Several texts and laws govern plastic waste management in Cameroon. Some of them address the issue of waste management in a general way and others are specific to the issue of plastics. These include, among others:

Table 5: Legal and regulatory framework in Cameroon

Text category	Text statement	Alignment with the plastic waste issue	Number of texts
Laws	Law No. 96/01 of 18 January 1996 on the Constitution of the Republic of Cameroon	It stipulates in its preamble that "every citizen has the right to a healthy environment". The protection of the environment is a duty for all".	09
	Law No. 96/12 of 5 August 1996 relating to environmental management. The provisions of Chapter IV deal with waste management, notably articles 42, 43, 46, and 49.	**Article 42** stipulates that Waste shall be treated in an ecologically rational manner to eliminate or curb their harmful effects on human health, natural resources, the fauna and flora, and on the quality of the environment in general; **Article 43** recalls the obligation for any person who produces or holds waste to ensure its elimination or recycling, or to have it eliminated or recycled in facilities approved by the administration in charge of classified establishments after compulsory advice from the administration in charge of the environment. It is, moreover, required to ensure that the public is informed of the effects on the environment and public health of the production, holding, elimination or recycling of waste, subject to the rules of confidentiality, as well as of the measures intended to prevent or compensate for the harmful effects thereof; **Article 46** makes Regional and Local Authorities responsible for the process of eliminating waste produced by households, in conjunction with the competent State services; **Article 49** addresses the problem of pollution of continental and maritime waters and therefore prohibits the dumping, incineration or disposal of waste in these waters in compliance with Cameroon's international commitments.	
	Law No. 76 of 8 July 1976 to lay down the costs of inspection and control of dangerous, unhealthy or obnoxious establishments followed by Decree No. 76/372 of 2 September 1976		
	Law No. 86/016 of 6 December 1986 to lay down the general reorganization of civil protection in Cameroon	Article 1 reiterates the need to ensure the permanent protection of persons, property and the environment against the risks of serious accidents, calamities or disasters, as well as the effects of such disasters	
	Law No. 89/027 of 29 December 1989 on	This law prohibits the introduction, production, storage, possession, transport, transit and	

	toxic and hazardous waste	dumping on the national territory of toxic and/or hazardous waste in all its forms (inflammable, explosive, radioactive, dangerous to human life, animals, plants and the environment). Local industries that generate such waste must declare the volume and nature of their production and dispose of this waste.	
	Law No. 96/117 of 5 August 1996 on standardization	It specifies in Article 5 the field of competence of the national system of standardization, which includes environmental protection standards among others. Also in Article 18, the text provides that putting into circulation goods that do not comply with standards the application of which has been made mandatory entails their withdrawal from distribution channels and levying of a fine.	
	Law No. 98/005 of 14 April 1998 to lay down regulations on water resources	Article 4 of the law prohibits the discharge, submerging, spraying, infiltration, burying, strewing, and direct or indirect dumping of any solid, liquid, or gaseous matter in water, particularly industrial, agricultural, and atomic wastes likely to alter the quality of surface or underground water or seawater within territorial boundaries; affect public health as well as aquatic or submarine flora and fauna; and jeopardize the development of the economy and tourism of regions	
	Law No. 98/015 of 14 July 1998 relating to establishments classified as dangerous, unhealthy or obnoxious.		
	Law No. 2004/018 of 22 July 2004 to lay down rules applicable to councils	**Article 16** specifies the powers devolved upon councils in matters of environmental and natural resource management, notably drinking water supply; cleaning up of council streets, roads and communal public parks; monitoring and control of industrial waste management; reforestation operations and creation of council forests; combating unsanitary conditions, pollution and nuisance; the protection of underground and surface water resources; preparation of council environmental action plans; creation, maintenance and management of council green spaces, parks and gardens; local management of household waste; **Article 19** also provides for powers of ensuring sanitary inspections in establishments that manufacture, package, store or distribute food products, as well as in plants that treat solid and liquid waste produced by individuals or companies; **Article 110** of this law spells out the powers devolved upon city councils, among which we can mention the monitoring and control of the management of industrial refuse or waste, the	

		cleaning of public roads and areas, the collection, removal and treatment of household waste, the creation, development, maintenance, operation and management of urban sanitation, used and rain water facilities, preparation of urban environmental action plans, especially as concerns the fight against nuisance and pollution, the protection of green spaces	
Decrees	Decree No. 99/821/PM of 9 November 1999 –to lay down terms and conditions for the approval of natural persons or legal entities for inspections, controls and audits of establishments classified as dangerous, unhealthy or obnoxious.		06
	Decree No. 2013/0171/PM of 14 February 2013 to lay down terms and conditions for conducting environmental and social impact assessments.	It stipulates in its article 7 that any promoter of a project, an establishment, a programme or a policy is required to carry out an environmental and social impact assessment, an environmental impact notice or a strategic environmental assessment under penalties provided for by the laws and regulations in force.	
	Decree No. 2013/0172/PM of 14 February 2013 to lay down terms and conditions for conducting environmental and social audit	It specifies the conditions of a documented and objective systematic evaluation of the activities of an entity, a structure and the facilities of an establishment, as well as of their operation and environmental management system to protect the environment.	
	Decree No. 2008/064 of 4 February 2008 to lay down the conditions for the management of the national environment and sustainable development fund	This text defines on the one hand the resources allocated to sustainable development and provides guidelines on expenditure related to this fund which was initiated pursuant to the law relating to environmental management. Thus: **Article 3** sets out 8 sources of provision of the said fund, including the proceeds from fines and transactions stipulated by the law relating to environmental management and the law relating to establishments classified as dangerous, unhealthy or obnoxious; processing fees for environmental assessment and environmental audit files; contributions from the State; contributions from regional and local authorities or associations seeking to promote environmental protection and sustainable development etc.; **Article 4** highlights the activities to be financed by the fund's resources. These include supporting sustainable development projects; supporting environmental research and education; contributing to financing the rehabilitation of sites; contributing to financing the environmental audits conducted by the Administration in charge of environment; providing support to promote clean technology programmes; encouraging local initiatives on environmental protection and sustainable development; supporting legalized associations	

		involved in environmental protection which carry out significant activities in this area, etc.	
	Decree No. 2005/0528/PM of 15 February 2005 relating to the creation, organization and functioning of an ad hoc committee for the coordination of operations to combat fraud, smuggling and counterfeiting, whose mission is to clean up commercial operations with a view to ensuring healthy competition in economic activities.	This text highlights the various actions carried out within the framework of this committee, including (i) fight against importation, possession or sale of products resulting from fraud, smuggling and counterfeiting; (ii) preparation and monitoring of the execution of related prevention and repression programmes; proposals to the Government on all measures likely to curb illicit manufacturing, penetration and disposal of products in order to contribute to guaranteeing tax and customs revenues concerned; monitoring the application of sanctions provided for by texts in force with regard to fraud, smuggling and counterfeiting of products, centralizing information and intelligence on illicit commercial practices.	
	Decree No. 2012/2809/PM of 26 September 2012 to lay down conditions for sorting, collecting, transporting, retrieving, recycling, treating and final disposal of waste	The text specifies the conditions under which household, industrial, medical and pharmaceutical waste management operations as well as agricultural waste should be carried out.	
	Decree No. 2015/1373/PM of 8 June 2015 to lay down rules for exercising some powers transferred by the State to councils on environment.	Article 1 of the text specifies the said powers. It concerns monitoring and controlling industrial waste management, protecting groundwater and industrial resources and protecting groundwater and surface water resources. Article 2 specifies the state's (MINDDEVEL) prerogatives and responsibilities in terms of (i) defining modes of management of plastic, toxic and dangerous waste as well as determining their method of treatment; (ii) defining specific conditions for managing industrial waste. Finally, Article 5 specifies the measures and actions to be carried out to preserve the environment, which include (**i**) promoting the construction and/or rehabilitation of class 1 wastewater treatment plants and landfills (industrial and final waste) by waste producing industries and (**ii**) controlling manifest traceability of waste and environmental permits in industrial waste management; all this shall be done through an implementation timetable drawn up by the councils.	
	Decree No. 2021/747 of 28 December 2021 to lay down the conditions for exercising some powers transferred by the State to regions on environmental protection	Article 2 lists powers, including (i) setting of defences and other local measure for the protection of nature, (ii) implementation of firebreaks and early burning, as part of the fight against bushfires (iii) preparation, implementation and monitoring of regional environmental plans. Article 5 recommends the promotion of local best practices for nature protection in	03

		regions . Article 14 specifies that the transfer of powers is accompanied by the transfer of the resources necessary for their exercise. Article 16 specifies that the region shall benefit, in addition to the financial resources transferred by the State, from assistance from various partners in exercising these powers in the domain of environment. Article 22 stipulates the submission of a half-yearly report by the council to the representative of the State who has 15 days to forward it to the minister in charge of Regional and Local Authorities and the minister in charge of environment.	
Orders	Order No. 00001/MINEPDED of 08 February 2016 to lay down the various categories of operations whose implementation is subject to a strategic environmental assessment or an environmental and social impact assessment.	Article 4 spells out operations or activities that are subject to a detailed environmental and social impact assessment, including industrial waste recycling plants, non-domestic or industrial waste treatment facilities	
	The Joint Order No. 005/MINEPDED/ MINCOMMERCE of 24 October 2012 to lay down specific conditions for the management of electrical and electronic equipment as well as the elimination of waste from such equipment	Chapter II deals with the collection of waste electrical and electro - household equipment. Thus **Article 5** stipulates that producers must: either be able to selectively collect waste electrical and electronic equipment from households by setting up an individual selective waste collection system approved by decision of the minister in charge of environment; or contribute to this collection by paying a financial contribution to an organization holding an environmental permit issued by the minister in charge of environment. This organization shall pay, by agreement with councils, the additional costs related to the selective collection of waste electrical and electronic equipment from households **Article 8** refers to the need to inform people about the obligation not to mix waste electrical and electronic equipment with unsorted household waste; to inform them about the collection systems available to them and about the potential effects on the environment and human health of the presence of hazardous substances in electrical and electronic equipment. Chapter III deals with the disposal, treatment and final elimination of waste electrical and	

		electronic equipment and specifies in articles 9, 10, 11 and 12 that the disposal and elimination of WEEE is primarily the responsibility of the users, that their selective treatment, recovery and final elimination must be carried out in facilities that meet the technical requirements and finally that the recovery processes for WEEE take precedence over their destruction: **Article 13** specifies that the management of WEEE waste entrusted to an approved operator is subject to specifications and a contract approved by MINEPDED;	
	Joint Order No. 004 MINEPDED/MINCOMMERCE of 24 October 2012 to regulate the manufacture, import and marketing of non-biodegradable plastic packaging in Cameroon	**Article 3** specifies that any manufacturer, importer or distributor of authorized non-biodegradable packaging is responsible for the management of its waste through measures to limit production and promote recycling, reuse and other forms of recovery of waste from such packaging **Article 4** requires an environmental permit to be obtained for any activity concerning the manufacture, import and marketing or distribution of non-biodegradable packaging in order to ensure the traceability of its recovery, recycling and/or destruction in an environmentally sound manner. **Article 5** specifies the conditions for the management of such packaging through the development of a waste management plan **Article 7** categorises the type of packaging subject to the ban. To this end, the text prohibits the manufacture, import, possession and marketing or free distribution of non-biodegradable plastic packaging with a low density of 60 microns or less (1 micron is equal to 1/1000 mm) as well as the granules used in their manufacture. An environmental permit is required for the same operations concerning non-biodegradable plastic packaging with a thickness of more than 60 microns and the granules used in their manufacture.	
Circular letters	- Circular Letter No. 096/CAB/ MINEPDED of 10 April 2014 to check compliance and punish offenders to the said orders Circular Letter No.	It sets up the coordination bodies to combat plastic pollution at the central and decentralized levels.	

	00036/NC/CAB/MINEPDED of 28 August 2014 relating to the repression of small-scale offenders to the joint Order N° 004/MINEPDED/ MINCOMMERCE of 24 October 2012 relating, among other things, to the prohibition of plastic packaging less than 61 microns thick	It specifies the amount of fines to be applied to small-scale offenders	

Implementation of the environmental regulatory framework is progressive. In addition to strengthening the management system (control of landfills, storage, treatment and recovery facilities), the texts regulate the transboundary movement of waste. We also note the development of joint texts demonstrating collective responsibility in the implementation of national resolutions with the strong involvement of RLAs. The texts do not necessarily include the private sector, whose role is essential in the management of waste of all kinds. In terms of plastic waste management specifically, legislation is embryonic and is limited to a joint order and circulars, thus reflecting a rather weak leadership for a complex issue.

I.5.1.3- The sanctions regime

The system of sanctions applicable to waste management is very severe. The principle of no-fault liability of the producer is retained in all cases where waste causes damage, notwithstanding regulatory checks and inspections.

(i) Article 80, Law No. 96/12 of 5 August 1996 relating to environmental management stipulates a fine of fifty million (50 million) to five hundred million (500 million), and life imprisonment, for the introduction of toxic and/or hazardous waste into Cameroonian territory.

(ii) Article 81, Law No. 96/12 of 5 August 1996 relating to environmental management provides for, ten (10) to fifty million (50 million), and a prison sentence of two (02) to five (05) years, or one of these penalties, for importing, producing, holding and/or irregularly using harmful or dangerous substances. The penalties are doubled in the event of a repeat offence. The regime of penalties also extends to water pollution, operation of non-compliant or unauthorized plants, etc. All of the penalties are cited in Law No. 96/12 of 5 August 1996 relating to environmental management, Articles 79 to 87.

(iii) The 1996 legislator illustrates his severity by specifying in article 87 that: "the provisions of the penal code, relating to suspended sentences and mitigating circumstances, are not applicable to the penalties enacted in the framework law on environmental protection. Law No. 89-27 of 29 December 1989 on toxic waste provides for imprisonment of five to ten years and a fine of five million CFA francs for any unauthorized person who does not eliminate toxic and/or hazardous waste generated by his or her company under the conditions defined by this law and subsequent regulatory texts".

iv) Decree fixing the amount of the specific tax for services rendered

Law No. 74/23 of 5 December 1974 on communal organization sets a direct communal tax or "specific tax for services rendered". This is specified in Article 96. The maximum amount of this tax is fixed in Article 4 of decree No. 80/017 of 15 January 1980. This tax is levied on natural persons and patentable establishments. For individuals, the maximum rates are fixed as follows: civil servants pay between 50 and 250 CFA francs per year according to categories ranging from D to A/2. The contractual employees of the administration and private sector subject to the withholding tax system pay between 150 and 10,000 FCFA/year depending on the amount of their salary. Establishments paying patents and licences pay between CFAF 2,500 and CFAF 30,000/year depending on the amount of the principal tax.

(v) The Penal Code

It provides, in its articles R367, R369 and R370, a penalty of 200 to 3600 FCFA in case of non-compliance with legal provisions concerning waste management. A fine ranging from 4,000 to 25,000 is also possible under the provisions of Article R370 (12) for violators of legally signed and regularly published regulations and orders issued by other authorities[6]

[6] With reference to Circular Letter No. 00036/NC/CAB/MINEPDED of 28 August 2014

I.5.2- Institutional framework of plastic waste management in Cameroon

The analysis of the institutional framework takes into account the categorization of actors according to their different functions. To this end, several categories of actors should be distinguished, namely:

- Planning, orientation and control institutions;
- Execution and management institutions
- Financing bodies.

I.5.2.1- Planning, orientation and control institutions

These are the regulatory actors involved in the development of policies on plastic pollution, elaboration and implementation of action plans, control of the conformity of activities, etc. Thus we have public administrations, notably ministries and their decentralized services.

I.5.2.2- Execution and management institutions

These involve all the parties involved in the implementation of public policy on the reduction of plastic pollution. We can mention Regional and Local Authorities (RLAs), private structures working in the collection and recovery of plastics, non-governmental organizations and associations.

- **Regional and Local Authorities**

Several texts provide a framework for decentralization in Cameroon. Each of these texts has prerogatives in favour of environmental protection, guarding against disasters and thus making the communities or authorities responsible thereof.

- **Non-Governmental Actors (NGA)**

Non-governmental actors are natural persons or legal entities who, in accordance with the laws and regulations in force, notably Law No. 90/053 of 19 December 1990 on freedom of association in Cameroon, participate in the execution of missions of general interest. This category of actors includes

- Associations and/or non-governmental organizations (NGOs) involved in the collection, recycling and/or treatment of waste;
- the private sector, essentially companies or groups of people.

On the basis of their position in the plastic management chain, they have been classified as:

- **producers**: these include companies involved in the manufacture and import of plastic materials/packaging/contents.
- **Consumers**: these include companies involved in the distribution, marketing, wholesale and retail of plastic packaging. At the bottom of the scale are sellers of all kinds using plastic packaging and households.

- **Associations/companies** working in the collection, recycling and recovery of plastics. Several initiatives are underway in Cameroon at the formal and informal level.

I.5.2.3- Financing bodies

Waste management financing bodies include national financing structures and international donors.

- **National financing structures**

They consist of:

- The Ministry of Finance (MINFI), which intervenes indirectly through the financing of the state's share in the payment of services provided by concessionary companies on the one hand, and on the other hand through its role as collector and distributor of additional council tax, which constitute the main source of council revenue in terms of waste management; MINFI also collects fines from small offenders, which is why it appoints revenue or tax collectors in the delegations
- Special Council Support Fund for Mutual Assistance (FEICOM). It was created by Law No. 74/23 of 5 December 1974 on the organization of councils in Cameroon and made operational by implementation Decree No. 77/85 of 22 March 1977. Its main mission is to support Regional and Local Authorities (RLAs) in their development process by providing them with technical and financial assistance. This organization is therefore the main instrument for local development in Cameroon. FEICOM was reorganized by Presidential Decree of 11 December 2000, which established it as a Directorate General. This Decree was in turn modified and completed by another one dated 31 May 2006, one of the major innovations of which is the financial intermediation function assigned to this structure. This new function leads FEICOM to seek partnerships within the framework of international financial cooperation in order to help Cameroonian municipalities find alternative resources to deal with their development problems.
- The National Environment and Sustainable Development Fund

Article 11 of the Law relating to environmental management institutes a special allocation account in the Treasury. The objectives of this fund are, among others, to finance environmental controls in structures, support environmental protection and development initiatives, particularly those of approved associations committed to this cause, support research, etc. Article 2 specifies the sources of funding for this fund, including State allocations, contributions from international donors, voluntary contributions, fines generated by lawbreakers, donations and legacies, sums recovered for the purpose of restoring sites, and any other revenue allocated or authorized by law.

- **External donors**

The main external support for waste management in Cameroon's major cities include in particular:

- Studies and construction of infrastructures, treatment units (composting plant), development of landfills;
- Operational support for labour-intensive sanitation projects;
- feasibility studies for treatment systems and development of urban development master plans;
- technical assistance for project supervision and the development of local regulations.

This programme did not include the landfill phase, which greatly reduced its environmental impact. Decentralized cooperation also intervenes through international NGOs, but these operations are very often of a pilot nature and drain a negligible fraction of the waste produced.

Thus, donors such as the African Development Bank, the European Union, GIZ, KFW, UNDP, UNEP and the World Bank support community initiatives related to sustainable development. The interrelationships between the various actors in the fight against plastic pollution are accurately presented in figure 10 below.

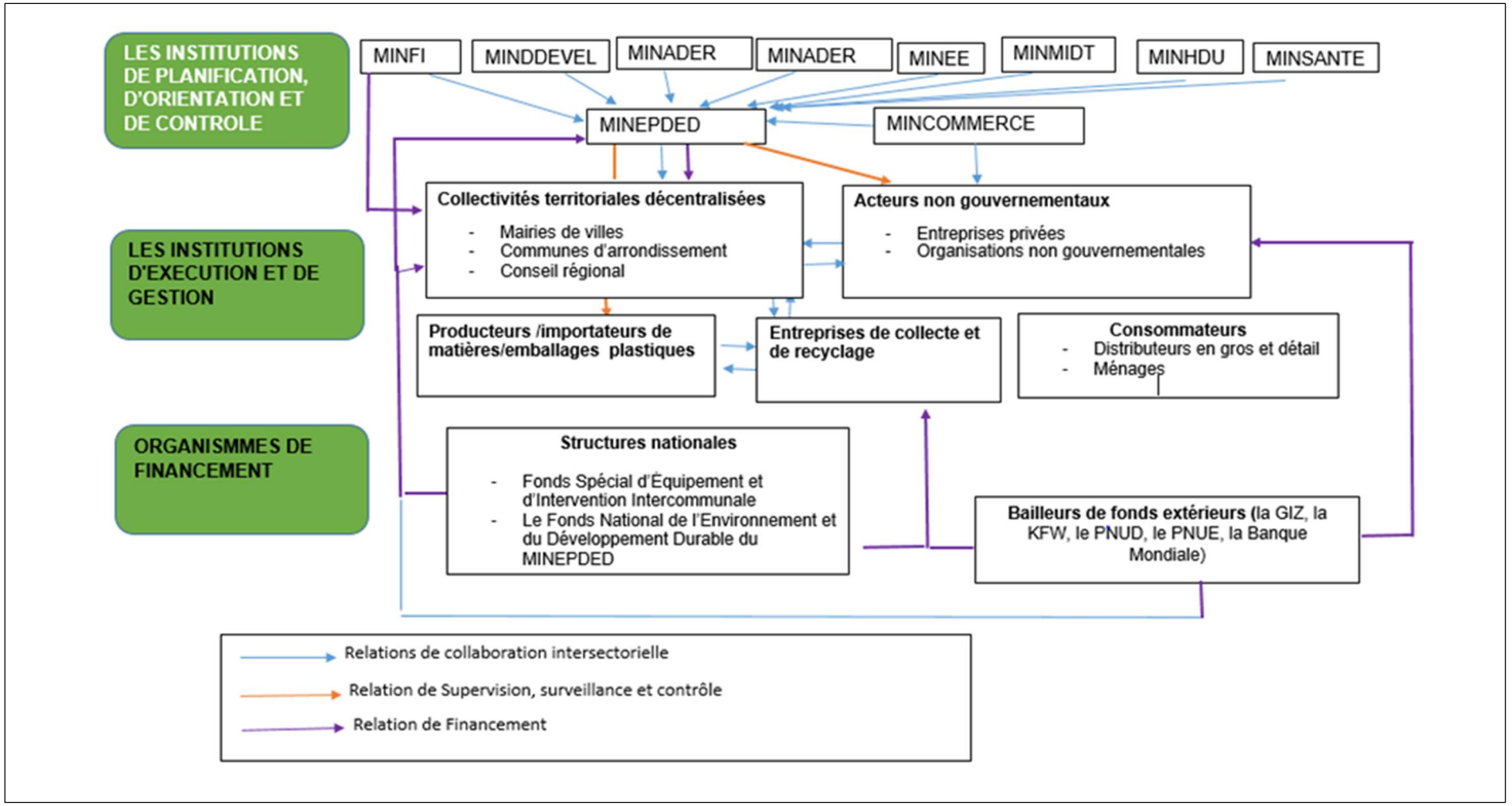


Figure 10: Synoptic diagram illustrating the interrelationships between the various actors in the fight against plastic pollution

The actors involved in the fight against plastic pollution are numerous and can be found at all levels (central, regional, divisional, district and council). This is a major strength for regulation, control and support interventions, provided that each actor understands their role and actually contribute to the fight.

I.5.3- Analysis of the role of actors

The game of actors can be analysed through the three groups of operators that have just been presented above, namely: institutional actors, non-governmental non-profit actors, and private for-profit companies.

I.5.3.1- Institutional actors

To date, the issue of plastic pollution concerns primarily the Ministry in charge of environment. Although the institutional arrangement in place provides for a more or less multi-sector involvement (Ministry of Trade, Customs, Territorial Administration, Ministry in charge of decentralization, etc.), the realities on the ground are quite different. There is less involvement of the administrations concerned, making MINEPDED the sole guarantor of the country's protection against plastic pollution.

Following the Joint Order N°004/MINEPDED/MINCOMMERCE of 24 October 2012 and the Circular Letter No. 096 /C/CAB/MINEPDED of 10 April 2014 relating to the control of conformity and repression of violators to the Joint Order; a vast repression campaign started on 24 April 2014 in order to dissuade producers, traders and users of the forbidden plastic packaging. This campaign, which witnessed a clear but brief success, enabled the establishment of a number of coordination bodies and operational units on the ground and mobilized a large number of actors. It has been marked by enthusiasm and the occasional mobilization of funds by MINEPDED to support deployments at central and decentralized levels. The lack of knowledge of the laws governing this issue, lack of specific resources allocated to the fight against waste in general to enforce the laws and regulations in force, and the fact that the issue has been left solely to the administration in charge of environment are, among other things, blockages and institutional constraints at the central level.

There is therefore a need for the different administrations to define a consensual and coherent waste management policy. Three main tasks emerge from the terms of reference prescribed by MINEPDED to the councils in the fight against plastic pollution: (i) raising awareness of at least 70% of the population on the harmful effects of plastic packaging, (ii) collecting at least 80% of plastic packaging in its territory, (iii) tracking down and censuring at least 70% of violators of the regulations on plastic management. MINEPDED's PIB mobilized for this cause in 2021 was 170 million and 210 million in 2022. An envelope of 4 million has been allocated to each operational unit at the divisional level. To ensure the sustainability of this action, given the lessons learned from this vast operation, a special PIB is mobilized each year through the Department of Standards and Control.

If these figures show a clear will of MINEPDED to increase its PIB in favour of the fight against environmental degradation by plastics, a detailed analysis makes it possible to detect

a notorious inconsistency of these State funds. Indeed, Cameroon has 364 municipal councils and 14 city councils. The largest allocation covers 21 municipalities out of the 364, i.e. barely 6% of all municipalities per year. This is just like "whistling in the wind". Moreover, the expected results of this support are not documented because the municipalities do not submit their technical and financial implementation reports, making it difficult to evaluate and assess the efforts made in this context. The allocations that were from the outset granted arbitrarily are, to date, given on a rotating basis, also taking into account the probable eligibility of the municipalities for other sources of funding.

I.5.3.2- Non-Governmental Actors (NGA)

Non-Governmental Organizations include neighbourhood associations. The emergence of this group of actors in Cameroon was encouraged in 1990 by the law on freedom of associations (Law No. 90/053 of 19 December 1990). It is worth noting that these actors owe their development to the insufficient provision of urban conveniences services such as drinking water, public lighting and inefficient management of household waste.

Although they have precarious organizational structures, they offer an appreciable level of service at the neighbourhood level. They mobilize direct participation of the population in decision-making on local projects such as pre-collection, collection and decentralized waste treatment. In the specific case of plastic waste management, their actions remain limited in scope as the groups are very few in number and the technical and financial means at their disposal are very limited.

It should be stressed that these NGAs cannot solve the problems related to urban sanitation on a city scale. Hence the need to strengthen the management capacity of municipalities working at this scale. In terms of industrial waste management, the intervention of NGAs is not very visible, given the material and technical means that must be mobilized. However, there are several associations and NGOs that intervene in cities to recover certain types of waste that are sold to companies. These associations act as real recovery SMEs and work with networks of intermediaries that they recruit in the different districts of big cities.

I.5.3.3- Private Operators (Companies importing and producing plastics/HYSACAM, etc)

The management of household waste in Cameroon is an area that is not yet sufficiently covered. However, the viability of this sector depends on the mode of financing put in place to ensure service costs. The already high public and private expenditure on waste collection is increasing in all cities due to population growth. The 2019 law stipulates that Regional and Local Authorities must ensure environmental protection and take appropriate measures to prevent or eliminate pollution. However, due to a lack of capacity to manage waste, municipalities have turned to private service providers. It is in this wake that public service concessions have been signed exclusively with HYSACAM company, for example. Faced with this demand, most cities have a few formal or informal private operators who are or could be involved in all stages of the household waste collection service. In some cities, private

contractors are the sole operators involved in collection, cleaning and landfill management. In most cases, the sustainability of services provided by these companies is based on the state involvement in the payment of services on the basis of the quantities of waste collected. However, this method of billing does not always improve the quality of services provided, as the provider will tend to focus their efforts in the area where waste can be removed with minimum investment. The service is thus focussed on accessible areas to the detriment of poor, informal settlements. As concerns production units, there are several service companies that are installed and that get paid solely on revenue made from sales of recyclable materials or from payment for cost of waste disposal services by the producing companies. In addition to the services of private operators, there are also those of the Common Initiative Groups (GIC), associations and SMEs that are set up to provide service in return for payment. However, the amount of waste they collect is small and most often this waste is dumped in bins to be taken to the landfill by private companies. Although this system is tolerated, there is no coordination between the company and the small provider who does the work upstream. The system does not always function well and each structure often works in isolation. It is worth noting that the weight of the administrative, financial and technical supervision of the State on the other actors of this sector, and more particularly on the Municipalities, does not allow to exploit all the existing potentials in the sector.

I.5.3.4- Main coordination bodies to combat plastic pollution in Cameroon

MINEPDED is in charge of coordinating activities to combat plastic pollution. Following previous initiatives and with the aim of stepping up repression operations, Circular Letter No. 096 /C/CAB/MINEPDED of 10 April 2014 relating to control of compliance and repression against violators of the aforementioned joint order sets up interdependent coordination bodies at regional and divisional level.

At the divisional level, provision is made of a divisional coordination committee under the authority of the Senior Divisional Officer. In addition, an operational unit has been set up to carry out raids on markets or any other place where plastic packaging less than 61 microns thick is sold, held or stored, with a view to controlling and seizing stocks of such packaging.

At the regional level, provision is made of a coordination committee under the authority of the Governor of the region. The latter is responsible for supervising the work of the divisional coordination committees and support for operational teams. In the subdivisions and councils, no committees are set up. They are, however, members of operational units for interventions that fall within their jurisdiction. Figure 11 below summarizes the levels of coordination of the fight at central and decentralized levels.

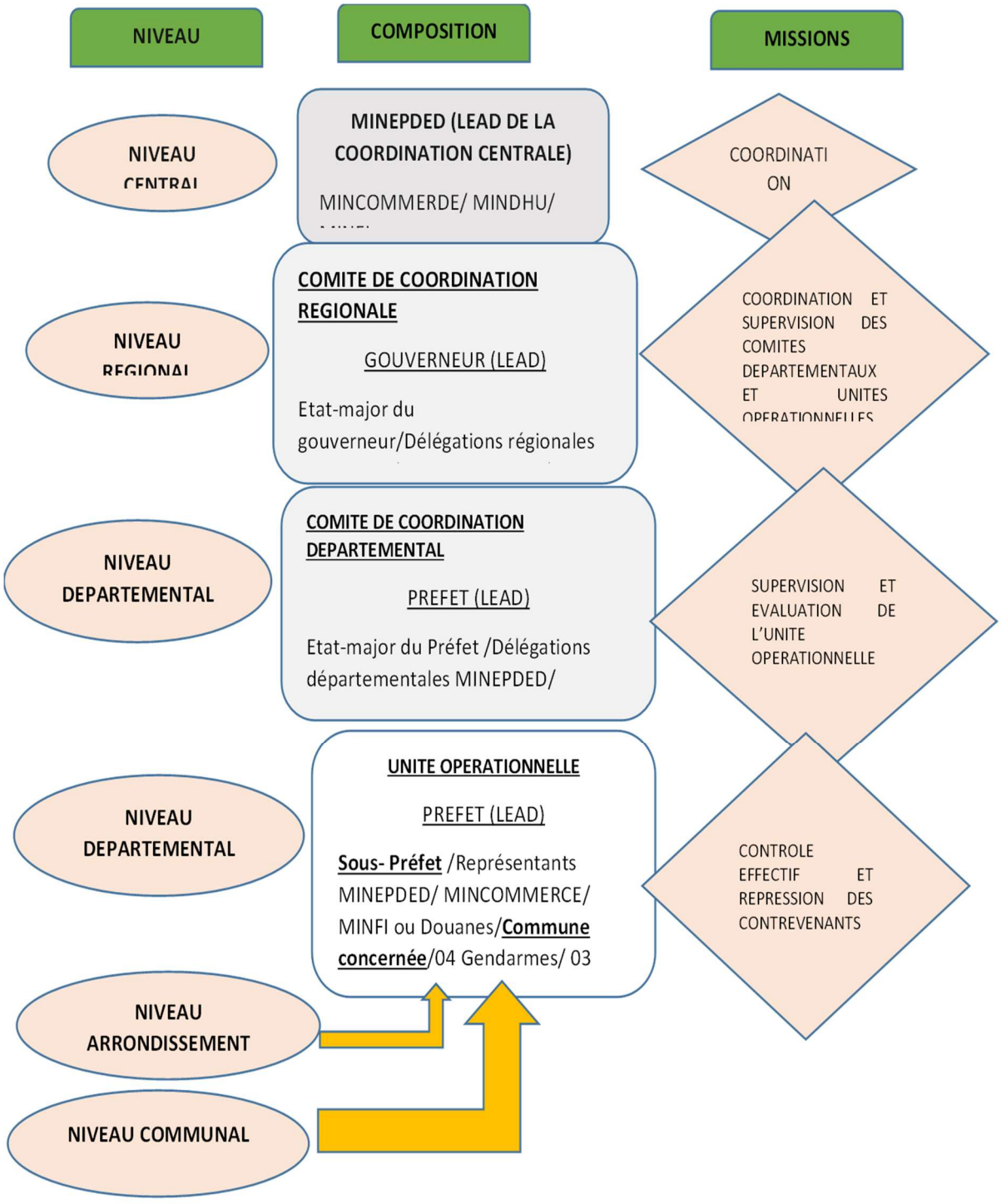


Figure 11: Organizational structure of coordination bodies to combat plastic pollution in Cameroon

I.5.4. Environmental and health impacts of plastics in the Republic of Cameroon

When talking about ecology, more precisely ecological disasters, it is difficult not to mention plastics. Its disastrous consequences on the environment are widely known. Plastic

packaging has a very negative impact on the planet, it can be said that it literally degrades many ecosystems.

Every year, tons of plastic wastes are thrown away. Oceans are completely polluted. It is even estimated that a seventh continent is emerging with the accumulation of plastic waste in the Atlantic Ocean. Several ecosystems are being disrupted and there is a growing loss of biodiversity, both in the oceans and on land. Many natural resources are being polluted and plastic ends up on our plates through the food chain. In addition to the environmental problems, plastic packaging poses many health risks. Plastic particles migrate into food and the nutritional quality is altered.

In short, plastic waste poses many environmental, social, economic and health problems.

• It has **a major impact on fauna, flora and the ecosystem,** through entanglement, ingestion and the fact that it facilitates transportation of pathogens and pollutants. At the level of organisms, plastics are ingested by terrestrial and marine animals and can obstruct their digestive systems, for example. At the level of populations, floating plastic debris provides a medium that can be colonized by certain invasive or pathogenic species, which are then transported over long, previously inaccessible distances and can affect different ecosystems. They also tend to absorb pollutants, most particularly persistent organic pollutants.

• **The health impacts on humans are not yet fully understood**, but the current literature concludes that the risks of plastics to human health are significant.

• The **world's oceans provide invaluable ecosystem services.** However, they are threatened by plastic pollution, which adds to the problems of acidification and rising water temperatures, both in terms of fish stocks and people's access to pristine natural environments.

• Finally, **plastic pollution has a negative impact on the tourism economy, fishing yields, maritime navigation and soil productivity**, through possible collisions. Pollution damages the image and attractiveness of the coasts. Boat propellers can get caught in lost nets or plastic sheets for example, leading to maintenance costs; fish can be caught unintentionally by these same lost nets, etc.

I.5.5. Evolution of the situation of the fight against plastic pollution

Cameroon is a producer and consumer of plastics. Indeed, studies have shown that nearly 80% of the producers of plastic waste do not recover it directly after use. Consequently, the waste is not recycled (Table 6). LDPE is the most produced type of plastic (31%), followed by PET (31%) and HDPE (10%).

Table 6: Results of surveys of plastics' producers and distributors

Name of the structure	Type of polymer	Quantity produced per month	Recovery after use	Fate
SFPA	LDPE	16,500Kg	Yes	Recycled

UNICA	HDPE LDPE	15,000Kg	No	-
SIAC	PE, PET	-	Some	Recycling
SABC	PE, PET	3000 units per month ; 6,674,760 bottles of 1 litre	No	-
CAMLAIT	PS, HDPE, LDPE	8051+5166+others	No	-

Figure 12 below shows the amount of waste generated in 2017 by type in Cameroon.

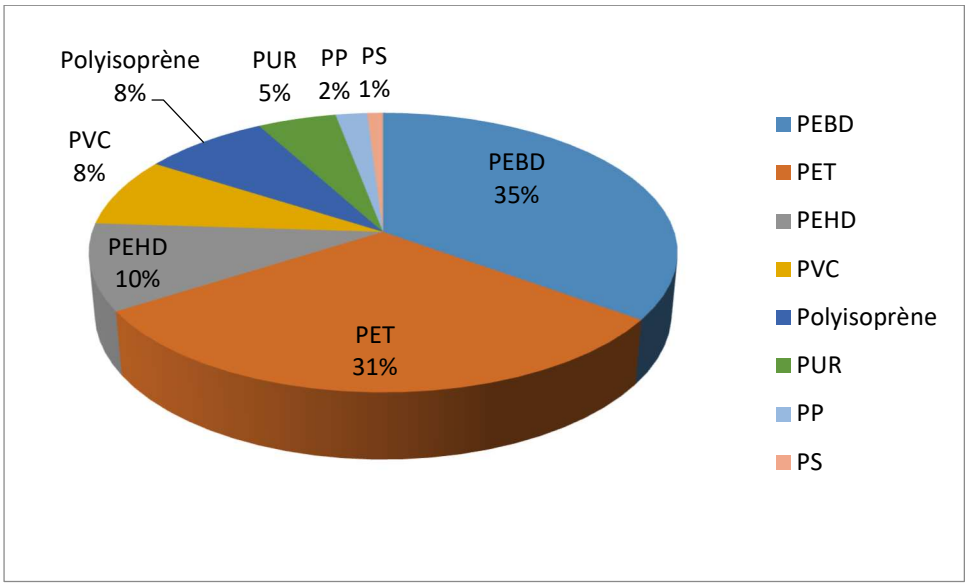


Figure 12: Typology of plastic waste generated in 2017

II- STRATEGIC DIAGNOSIS BY SCALE OF INTERVENTION: SWOT analysis of the fight against plastic pollution in Cameroon

This section analyses the strengths, weaknesses, opportunities and threats (SWOT) according to the types of factors identified in the previous inventory. The strengths and weaknesses will then be prioritized in order to highlight the major problems and the main strategic axes which will underpin the resolution of these problems.

II.1- Results of the SWOT analysis

The analysis of strengths, weaknesses, opportunities and threats on the issue of plastic pollution was carried out according to the plastic circuit in Cameroon (production/import-trade/distribution-consumption/use-disposal/recovery). Table 7 below presents a summary of the strengths, weaknesses, opportunities and threats of the fight against plastic pollution in Cameroon.

Table 7: Summary of the strengths, weaknesses, opportunities and threats of the fight against plastic pollution in Cameroon

Diagnosis of internal factors

TYPE OF FACTOR	*STRENGTHS*	*WEAKNESSES*
Institutional and governance framework	▪ Existence of supervisory and planning structures (MINEPDED, MINMIDT, Customs etc.); ▪ Existence of dedicated supervisory bodies such as the consumers' league; ▪ Involvement of civil society (CSOs and private operators) in the pre-collection and recycling of plastic waste, particularly thermoplastics (NAME Recycling, RED PLAST, C2D, EcoClean Environnement, CIPRE etc.); ▪ Municipalities maintaining partnerships with civil society to support pre-collection activities for waste and similar materials; ▪ Existence of a national waste exchange; ▪ Existence of a collection and recovery system for plastic waste	▪ Absence of specific prerogatives for the plastic issue; ▪ Weak involvement of some institutions in the fight against plastic pollution; ▪ High-level political commitment is weak; ▪ Lack of initiatives to develop selective sorting at the source of production; ▪ Absence of centralized and decentralized master plans for plastic waste management; ▪ Conflicting relations between informal pre-collection companies and the municipality hampering the efficient management of household and similar waste (plastic); ▪ An increasingly important place of the informal pre-collection sector, not organized and not controlled with scattered associative initiatives not based on a national vision to solve the problem; ▪ Poor pooling of efforts (technical and financial) of institutions in charge of plastic production and import;

		▪ Lack of means for municipalities in view of their responsibilities and prerogatives related to the management of waste and similar materials; ▪ Insufficient administrative controls in the field and among the actors in the chain; ▪ National waste exchange in its trial phases; ▪ Insufficient recovery institutions, especially for certain types of plastic; ▪ Lack of qualified institutions for research and development as well as for monitoring; ▪ Insufficient participation of citizens in the sorting and choice of packaging and other plastic products (is the citizen an institution, if not referred to the "culture" part). ▪ Absence of communal or inter-communal plans for the management of household and similar waste; ▪ Absence of monitoring and evaluation of the implementation of the specifications attached to the funds transferred to the RLAs (decentralization) within the framework of the fight against plastic packaging
POLITICAL AND LEGAL FRAMEWORK	▪ Existence of a regulation in favour of hazardous and non-hazardous waste (polluter pays principle) and of a sanction regime within the framework of the 96 framework law and the penal code; ▪ Effective decentralization with texts and specifications clearly defining the expected results in figures; ▪ The existence of a MINEPDED/MINCOMMERCE joint order to ban plastic packaging of less than 60 microns and an order on environmental permits for waste management in general and plastics in particular; ▪ Existence of provisions creating regional and divisional committees to fight against non-compliant plastic packaging; ▪ Existence of the waste management strategy; ▪ Existence of the sustainable development strategy; ▪ Existence of provisions sanctioning	▪ Regulations formulated in jargon that does not encourage/motivate the population (authorized plastic instead of reusable plastic); ▪ Obsolescence of many legal instruments still in force (name these texts and the aspects that are not taken into account); ▪ Lack of regulations on incentives for plastic waste management; ▪ Lack of specific initiatives and regulations to combat plastic waste pollution in the marine environment ▪ Outdated policy documents (waste management strategy, sustainable development strategy); ▪ Plastic regulations are not sufficient to control pollution throughout its life cycle; ▪ Lack of a circular economy framework; ▪ Failure in the functioning of the plastic packaging compliance control bodies (divisional and regional committees) set up by the MINEPDED circular of 10 April 2014 ▪ Absence of texts on the encouragement or

	small-scale offenders.	promotion of alternatives to plastics and the supervision of collection and/or recycling structures; ▪ Absence of State-owned plastic destruction sites; ▪ Lack of special programmes involving environmental associations on the ground for awareness raising, clean-up, research, and documentation of results on environmental pollution caused by plastics; ▪ Lack of in-depth research on the impact of plastic pollution, which can support decision making; ▪ Lack of programmes to characterize the predominant types of plastic waste; ▪ Presence of several illegal dumps. ▪ Lack of repression at the level of the RLAs because local elected officials do not want to disappoint their electorate
HUMAN RESOURCES	▪ MINEPDED and HYSACAM, which are the main actors in waste management, have qualified personnel with experience; ▪ Presence of qualified human resources in waste management; ▪ Existing human resources, capable and trained in awareness raising and repression; ▪ Support from some NGAs involved in plastic waste recovery. ▪ Creation of a new vocation/activity at the level of NGAs (plastic waste recovery)	▪ Lack of qualified personnel in RLAs for the sustainable management of waste in general and plastics in particular; ▪ Insufficient personnel assigned to the fight against waste; ▪ Lack of a census of all HR (non-existent file).
FINANCIAL RESOURCES	▪ Existence of several financing structures to support the RLAs for waste management (FEICOM, TFP); ▪ Existence of a functional Special Treasury Allocation Account (Fund) serving as a financing structure for the environment; ▪ Allocation of a special budget of at least 15% of the PIB to decentralization; ▪ Financing from the circular economy system through the issuance of environmental permits for waste management and the issuance of waste traceability manifests; ▪ Establishment of revenue and finance offices in the environmental	▪ Circular economy system not established; ▪ Spending on plastic waste management is entirely dependent on the State; ▪ Lack of an integrated financing approach to the fight against plastic waste; ▪ Financial penalties for violations are not adapted to all social classes; ▪ Low level of information on funding that can be mobilized; ▪ Resources mobilized but insufficient to carry out operations related to the control framework; ▪ Lack of appropriate financial assessment of the cost of surveillance and compliance monitoring operations; ▪ Low (insufficient/unstudied) contribution of

	delegations; ▪ Effective transfer of resources to the RLAs for the fight against insalubrity, pollution and nuisances; ▪ PIB funding for the monitoring and follow-up of activities related to the framework for the production and importation of plastics.	producers issuing packaging on the market; ▪ Lack of an integrated financing approach to control; ▪ Lack of accompanying measures for the enforcement team; ▪ Lack of data on the environmental benefits of recycling or recovery and lack of communication ▪ Insufficient or obsolete logistical means to fight plastic pollution in several municipalities and administrations; ▪ Lack or inadequacy of storage facilities for plastic waste at the level of both treatment facilities and municipalities and administrations; ▪ Non-payment of fees.
Research, development and monitoring dimension (Material, intellectual and technical resources)	▪ Equipment and kits for checking the thickness of plastics available in some MINEPDED structures; ▪ Presence of several sites of ecological destruction / recovery of plastic waste types.	▪ Insufficient monitoring by MINEPDED of the activities of actors along the chain (producers, recycling structures, etc.); ▪ Lack of analysis and detection equipment for toxic and dangerous substances found in plastics; ▪ Lack of scanners for the control and detection of plastics in the national corridor; ▪ Insufficient rolling stock for the surveillance of offenders; ▪ Insufficient and obsolete equipment for conformity control and destruction of plastics; ▪ Lack of equipment for the destruction of plastics; ▪ Recovery initiatives encountered are ad hoc and unfunded and they disappear when resources are scarce; ▪ Lack of qualified institutions for research and development and monitoring; ▪ Lack of special programmes involving environmental associations in the field and coastal areas for awareness raising, clean-up, research, and documentation of results on environmental pollution caused by plastics;

		▪ Lack of programmes to characterize the predominant types of plastic waste; ▪ Lack of targets to be reached (percentage of plastic to be eliminated) over a certain period of time in the fight against plastic packaging ▪ Lack of data on the environmental benefits of recycling and recovery and lack of communication; ▪ Failure in the functioning of plastic packaging compliance control bodies (divisional and regional committees) set up by the MINEPDED circular of 10 April 2014
Culture	▪ Traditional practices used as an alternative to plastic.	▪ Influence peddling supported by authorities on members of regional or divisional control committees; ▪ Absence of checkpoints to monitor the circulation of plastics on certain roads ▪ Operators and entrepreneurs resisting reconversion to other economic activities or to the transition to other speculations; ▪ Resistance of some operators and entrepreneurs to conversion to other economic activities; ▪ Resistance of some operators and entrepreneurs to conversion to other economic activities; ▪ Resistance of the population to change their behaviour / Population reluctant to accept alternatives to plastic. ▪ Absence of a governmental programme for the popularization and multiplication of plant alternatives such as marantacea, banana and teak leaves..... (the over-exploitation of these alternatives without this programme could lead to loss of biodiversity)
Knowledge	▪ Existence of the National Environmental Education and Awareness Programme (PNSEE); ▪ Operators and all actors sensitized through the 2014 operations on the fight against plastic packaging of less than 61 microns to date.	▪ Insufficient implementation of the National Programme action plan; ▪ Lack of knowledge of the plastic problem at local level (no quantification, let alone mapping of highly polluted sites); ▪ Ignorance of the real harms, impacts and issues related to the production and import and use of plastics;

Diagnosis of external factors

OPPORTUNITIES

- Existence of an intense operation to fight against cross-border trafficking (HALCOMI) led by MINFI/CUSTOMS;
- Opportunity for technical and financial collaboration/mutualisation with MINEFOP and MINPMEESA and MINJEC, MINAS, MINAC etc. for partnerships to develop new trades in favour of the circular economy;
- International mobilization in favour of binding regulations for member countries;
- International legal anchoring;
- Opportunity to exchange best practices and technologies at international level;
- Development of waste recovery and treatment centres;
- Taking into account of the problem of pollution control in strategic documents (GESP, NDS 30; vision 35);
- Establishment of a regulation on the use of all types of plastics;
- An increasingly important place for the informal sector of unorganized and uncontrolled pre collectors, with scattered associative initiatives not based on a national vision to solve the problem;
- Use and involvement of human resources of RLAs in the fight;
- Presence of several donors and technical and financial partners interested in funding the activity related to the fight against plastic pollution;
- Material pooling (vehicles and technology) between RLAs and other State structures involved in the fight;
- Associating the rolling stock of RLAs and other State structures associated with the fight;
- Existence of craftsmen and local raw materials;
- National cultural movement/dynamic driven at the highest institutional level of the country;
- Promotion and development of local

THREATS

- Misdirection of funds collected on forfeiture for violators;
- Insufficient multi-sector collaboration;
- Approximate practices due to legal loopholes;
- Insufficient sub-regional governance to regulate the fight in Central Africa;
- Lack of formalization of partnerships and other memorandum of understanding with non-governmental structures and RLAs working in development;
- Human resources of MINEPDED and RLAs only involved in the fight;
- Insufficient resources to conduct operations related to the supervision of imports and the manufacture of plastics;
- Difficulties in coordinating material resources that can be mobilized specifically for the fight;
- Cost of alternative materials not accessible;
- Radicalization of operators and entrepreneurs in case of prolonged repression;
- Users' perception of the advantages of plastic (cleaning, less restrictive deposit, waterproofing, etc.);
- Reluctance of the population to fight and use alternatives;
- Lack of collection objectives specifically directed towards the collection and disposal of plastic waste by the national operator HYSACAM;
- Insufficient funding for recycling projects;
- Porosity of national borders
- Lack of accompanying or support measures for the enforcement team.

products used as packaging (leaves, fabric, straw, paper);
- Involvement of traditional authorities in awareness raising/use of festivals as a framework for awareness raising;
- Financing of the plan by development partners;
- Develop and popularize the strategy at all levels of public life and among plastic production and import operators.

At the end of this analysis, strengths and weaknesses were identified and presented in Table 8 below.

Table 8: Presentation of the strengths and weaknesses identified by the analysis

Analysis points	Regulation of plastic pollution	Single-use plastics	Reusable plastics
Strengths and benefits	▪ Cameroon's subscription to international commitments ▪ Existence of an institutional and legal framework for plastic waste management (Ministry, legal texts, coordinating bodies, ▪ Acceleration of decentralisation ▪ Sustainable development funding institutions ▪ Coordination bodies set up at central and decentralized levels ▪ Non-governmental agencies (NGOs and private operators) mobilized	▪ Field teams experienced in market control and surveillance ▪ National availability of inputs/materials for the production of alternative choices	▪ Promotion of plastic waste recovery initiatives ▪ Mutualization of sector related efforts for strengthening of professions related to the circular economy
Weaknesses	▪ Insufficient political will ▪ Weak sub-regional governance to regulate the fight in Central Africa ▪ Weak involvement of other stakeholders (administrations, private companies and NGOs) in the coordination of the fight. ▪ Insufficient resources allocated to surveillance and control operations ▪ Lack of law enforcement at the level of councils because local elected officials are to dissatisfy their electorate	▪ Insufficient human resources to optimize coverage ▪ Less restrictive or poorly enforced penalties for offenders	▪ Low scope of current incentives ▪ Producer specifications with less binding clauses for waste recovery ▪ No target to be reached (percentage of plastic to be disposed of within a given period)

The following paragraph sets out the recommendations from the previous SWOT analysis.

III- RECOMMENDATIONS FROM THE SITUATION REVIEW AND DIAGNOSIS

The situation review and diagnosis of the fight against plastic pollution has served to highlight related assets (strengths and opportunities), needs (weaknesses and threats), as well as issues and challenges to be encountered in this area. Appropriate recommendations are thus formulated in terms of consolidating the achievements through the strong points and developing mechanisms intended to absorb the weaknesses, while taking into account the existing threats that have emerged.

III.1- Consolidation of achievements

This is summarized in five (05) main recommendations, namely

1) **Strengthening of Cameroon's legal and institutional framework.** Cameroon has adhered to several initiatives at the national and international levels.

- ✓ At the international level, Cameroon has signed agreements, including those relating to specific waste issues, including plastics. New meetings are planned to define new approaches at several levels in the governance of plastic pollution.

- ✓ At the national level, the country has several legislative and regulatory texts related to the fight against pollution of all kinds, including those regulating the use of plastics. In fact, in addition to the contractual clauses on recycling, post-consumer collection technologies should be taken into account according to the type of plastic; thus bringing to the table the problem of small packaging that is difficult to collect and reuse, which in the view of many people deserves to be addressed specifically with a text in favour of the fight against single-use packaging. Similarly, these texts are not very binding and do not provide for deprivation of liberty. Recommendations are made in favour of more coercive sanctions for plastic pollution

2) **Speeding up of decentralization**: Decentralization is progressive and in full swing in Cameroon. This approach is henceforth the main policy for implementing government actions. Thus, municipalities are involved in the effective implementation of joint order No. 004/MINEPDED/MINCOMMERCE of 24 October 2012 to regulate the manufacture, import and marketing of non-biodegradable packaging. Similarly, the State, through MINEPDED, transfers each year to some Regional and Local Authorities (RLAs) funds intended for the fight against plastic bags banned from circulation in Cameroon. This transfer is formalized through specifications which should be specified by a well-developed regulatory text and which will define the conditions for support and resources (human, infrastructural and financial) consistent with supporting the transferred actions.

3) **Strengthening synergies of action with other governmental (Ministries, Customs, RLA etc.) and non-governmental institutions:** Several actors are involved in the fight against plastic pollution. Mutualisation is effective through the formulation of texts and past experiences in the constitution of control teams as well as during deployments in the field. Similarly, non-governmental associations are involved in the collection and/or treatment of waste. Several NGOS involved in waste management are registered in the list of associations/NGOs in partnership with MINEPDED. It would also be interesting to strengthen this mutualisation for broader and more far-reaching actions, such as the overall contribution of the sectoral organizations in taking charge of their staff involved in control and repression operations, as well as strengthening of professions related to circular economy.

4) **Strengthening the contribution of financing institutions:** Several institutions are involved in the financing of environmental preservation activities. The resources come from the state budget, technical and financial partners, and the collection of taxes and duties. A special fund has been set up to mobilize financial resources to support actions to combat plastic pollution. However, resources allocated to monitoring and control operations are insufficient. This monitoring/control action is carried out at several levels (through routine inspection of companies in the context of issuing environmental permits and monitoring environmental management plans, but also as part of the missions of the operational units that track down violators of the joint MINEPDED/MINCOMMERCE Order. Consequences: As a result, the various committees set up to date are operating at a very basic level and lack the resources to exercise their prerogatives. It is therefore necessary to increase the budgetary allocations to combat plastic pollution.

5) **Strengthening local initiatives for substitution, collection and recovery of plastic waste:** The recovery activities are carried out thanks to the assistance and support of the administration in charge of environment, some regional and local authorities and private operators. However, there are no public mechanisms specifically identified for financing plastic waste recovery initiatives. The national fund for environment and sustainable development provides for the possibility of financing NGAs working in the area of sustainable development. However, there are still shortcomings in the mobilization of funds to be redistributed for these activities, including monitoring, control and support for recovery. Similarly, there are many alternatives to the use of plastics that have been identified and proposed to consumers during the operation following the signing of Joint Order No. 004/MINEPDED/MINCOMMERCE of 24 October 2012. These alternatives, which include packaging or objects made of straw, plant leaves, paper, glass, aluminium, etc., are often very limited in terms of availability and should be promoted.

III.2- Mechanisms to address weaknesses

1) **Definition of sufficient leadership skills at national and international level for the fight against plastic pollution:** this recommendation is based on two observations, one of which is ***insufficient political commitment***, given that the existing texts do not seem to have sufficient cross-cutting scope to mobilize the various actors. The fight against plastic pollution has been left solely to the administration in charge of environment. In addition, there is almost ***no sub-regional governance*** to regulate the fight in Central Africa, as the successful experience of the East African sub-region has shown that good sub-regional coordination of the fight has advantages for the individual successes of countries.
2) **Need to implement a circular economy system in the field of industrial development:** This recommendation arises from the observation that production and consumption patterns are not systematically oriented towards the circular economy. This should be a strong strategic orientation in industrial development in Cameroon. For example, companies involved in the pre-collection and recovery of waste (including plastics) maintain more or less good relations with the RLAs but do not receive sufficient technical and financial support from the administration or development partners. These companies, irrespective of their legal status, are not involved in coordinating the fight against waste at the central and decentralized levels. Similarly, there is lack of interest on the part of waste-producing companies in the issue of waste collection, even though they have objectives defined in their terms of reference and despite the existing contractual provisions in this area.
3) **Mobilization of funds for plastic pollution response:** The regulation provides for the collection of funds for pollution response. Several bottlenecks should be addressed, most particularly the lack of funding to ensure control, monitoring and awareness-raising against plastic pollution. To this end, an improvement in collections on the one hand and the introduction of financial incentives on the other would make it possible to optimize collections while encouraging the involvement of producers/importers in the same logic as the polluter-pays principle. Indeed, the importers' specifications are not restrictive enough in terms of plastic recovery and recycling obligations. These constraints should be reflected at two levels: by setting waste recovery targets and by setting/increasing the import tax on raw materials and plastic products. Also, an increase in import duties on plastics would be a way to promote import substitution, as would a system of tax exemptions for companies involved in the recycling of plastic waste.

4) **Promotion of research on development of plastics statistics in Cameroon:** the resistance observed among the population to stop using plastic demonstrates the influence of several factors. Indeed, in addition to awareness raising and repression

around the issue, there seems to be grounds of "non-evidence" beyond the alternatives that may not be available. The question of attitudes should be explored. This could be done through socio-anthropological studies on perceptions. The evidence also concerns data on the preferred pollution sites and the quantities of plastics produced or consumed in Cameroon. Thus, for the purposes of improving planning, it is highly imperative to increase data collection and mapping in order to better appreciate the prevailing situation.

PART TWO: STRATEGIC FRAMEWORK

I- STRATEGIC VISION

On the basis of lessons learned from control initiatives identified at national and international level and the results of the SWOT analysis carried out, this part aims to set out the strategic vision on which the strategic options and axes as well as the measures for implementing the strategy will be based.

I.1- Method used for the choice of the vision

The vision of SNLPP was defined by taking into account the challenges and stakes raised by Cameroon through the project owner and stakeholders in the development of the said document and the integration of orientations set out in the National Development Strategy 2030 (NDS30). It also took note of international guidelines, particularly the principles of sustainable development and multilateral agreements that Cameroon has ratified in terms of waste management.

Thus, the vision adopted takes into consideration both national and international priorities and aims to be at the forefront in proposing some orientations concerning the resolution of plastic pollution problems in Cameroon, Africa and the world.

I.2- Consensual vision adopted

The issues identified within the context of the response to plastic pollution challenges all stakeholders to answer the following question "What strategic approaches will effectively contribute to reduce plastic pollution throughout the country by 2029? “

Taking into account the various weaknesses and threats highlighted in the strategic diagnosis by scale of intervention, also concerned about the need to reduce to their simplest expression environmental and social impacts due to the use of plastics and considering furthermore the quantitative objectives to be reached by 2035 as defined in the national policy document on the management of non-biodegradable packaging in Cameroon, the proposed vision is worded as follows

By 2029, ensure the establishment of a favourable regulatory framework for 40% reduction of prohibited plastics and boost the recovery of 50% of all non-biodegradable plastic waste while promoting circular economy at the highest political level and the thermal treatment of at least 10% of plastic waste.

The aim is to achieve a minimum level of consumption of plastic materials in order to significantly limit the negative effects of their waste on health and the environment.

The choice of 2029 is justified by the alignment of the SNLPP with the NDS30, which will be evaluated in 2030. The evaluation of the strategy developed could therefore be carried out harmoniously one year beforehand in order to be taken into account during the evaluation of the NDS30. Also, the results could be capitalized and taken into account in the last phase of the 2035 vision.

I.3- Prioritization of problems and choice of options and strategic axes

The prioritization of problems was done using an approach based on data/information collected in the field by associating diagnostic factors[7]. The problems were prioritized using the fixed ranking scale or ladder method. This logic uses a scale of 0 to 10 with steps each associated with levels of importance (extremely important, very important, important, not important, ignore). The final weighting is obtained by calculating the average assigned to each issue.

This analysis identified the major problem as follows: **weak capacity of the current governance system to give a plausible articulation to policies of response to the proliferation of plastic waste and the resulting environmental and health constraints.**

I.3.1- Policy options

The resolution of this problem led to the identification of five main strategic options contained in Table 9 below:

Table 9: Strategic options for the fight against plastic pollution in Cameroon

Problems	**Strategic options**	Strategic axes
Problem 1: Insufficient institutional and regulatory capacity to achieve the objectives of reducing plastic pollution in Cameroon	**SO 1**: Legal and institutional support for the fight against plastic pollution	**SA 1**: Improving institutional and legal governance of the fight against plastic pollution
Problem 2: Insufficient supervision of plastic waste recovery initiatives	**SO 2:** Support for plastic recovery initiatives	**SA 1**: Promotion of the 7 pillars of circular economy for plastic products. **SA 2**: Strengthening actions against plastic pollution in implementing and management institutions
Problem 3: Low promotion of plastic substitution methods	**SO 3**: Paradigm shift to the use of plastic as a material and development of alternatives	**SA 1**: Strengthening education, awareness raising and communication **SA 2**: Development of innovative research projects and programmes on plastic substitution
Problem 4: Limited affordability of plastic pollution control operations and initiatives	**SO 4**: Mobilization and optimization of funding mechanisms	**SA 1**: Strengthening financial incentive mechanisms and optimizing allocated resources
Problem 5: Poor performance and monitoring evaluation of	**SO 5**: Implementation of a strategic steering and	**SA 1**: Strengthening environmental information system

[7] (i) institutional and governance framework, (ii) policy and legal framework, (iii) human resources, (iv) financial resources, (v) research, development and monitoring dimension (material, intellectual and technical resources), (vi) culture, (vii) knowledge

plastic pollution control	monitoring and evaluation system	**SA 2 :** Strengthening the implementation and monitoring and evaluation system

I.3.2. MEASURES TO IMPLEMENT THE STRATEGIC OPTIONS

This section presents the implementation mechanism for the fight against plastic pollution, with strategic and operational objectives

Table 10: Presentation of implementation measures

SO 1: Legal-institutional support and regulation of plastics			
Strategic axis	**Strategic objective**	**Operational objective**	
SA 1: Improving institutional and legal governance of the fight against plastic pollution.	Strengthen the existing institutional and legal arrangements for a better coordination of the implementation of interventions.	Define an institutional arrangement supported by high-level political bodies.	**M1: Adopt** a presidential act that organizes the management framework of the fight against plastic pollution in Cameroon. **M2**: Initiate an advocacy with CEMAC and ECCAS for the adoption of binding instruments for member countries to deal with plastic pollution.
		Strengthen multi-sectoral collaboration mechanisms to reduce plastic pollution.	**M1:** Revitalize the coordination committees for the fight by engaging the technical and financial resources of all the administrations at central and decentralized levels. **M2:** Revise the composition of coordination committees and operational units by integrating non-governmental associations working in the fight at all levels of the plastic value chain. **M3**: Create and ensure the functioning of multi-sectoral programmes/projects for the integration of young people reconverted from plastic import, production and distribution activities.
.		Revise the texts in favour of a more restrictive regulation for actors of the chain.	**M1** Develop/revise the texts by integrating penalties with deprivation of freedom for offenders of regulations. **M2**: Strengthen the formulation of EPR in the texts governing the regulation of plastic packaging exploitation in Cameroon. **M3**: Develop a specific regulation for single-use plastic. **M4**: Develop texts that clarify the responsibilities of RLAs in terms of the fight against plastic pollution. **M5**: Develop coercive texts for the effective implementation of the directives of specifications related to the recycling of plastic materials produced, imported or marketed.
		Include circular economy in regulatory instruments in relation to the fight against plastic pollution.	**M1:** Update the national waste strategy with the action plan adopted at the end of the first National Waste Conferences directing waste management towards circular economy **M2:** Revise the texts (Order No. 001MINEPDED on the environmental permit) in favour

			of the promotion of the economy with emphasis on plastic waste management.
		Strengthen regulations in favour of a specific framework for the fight against plastic pollution in the marine environment	**M1**: Establish a regulatory framework with a national response plan that integrates the specific aspects of marine plastic pollution **M2:** Draw up a model municipal by-law that can be duplicated and adapted to support the fight against plastic pollution in general and specifically in the coastal environment **M3:** Implement a regulatory instrument aimed at contributing to the prevention and management of plastic waste at the national level (limitation of discharges into the sea, reduction of the impact of economic activity on the marine environment, obligation to recover waste present in the aquatic environment)
SO 2: Support for plastic recovery initiatives			
SA 1: Promotion of the 07 pillars of circular economy for plastic products	Encourage reduction, recovery, repair, reuse, reusing, recycling, eco-design, industrial ecology and the economy of functionality for plastic products	Develop sustainable production methods by using plastics.	**M1:** Support companies involved in plastic waste-based production. **M2:** Encourage post-consumer recovery actions for packaging. **M3**: Develop and disseminate alternatives to plastic....
		Encourage synergies between companies working in the same sector of activity for a better optimization of resources.	**M1:** Encourage RLAs to promote the creation of recycling units for different types of plastic **M2**: Create networks of companies involved in recycling for better collaboration M3: Operationalize the national technical waste exchange. **M3:**
SA 2 : Strengthening actions against plastic pollution in implementing and managing institutions.	Build capacities of RLAs and NGAs for the collection, recovery and valorization of plastic waste.	Build the technical and logistical capacities of RLAs in terms of plastic waste management.	**M1**: Support RLAs in drawing up environmental plans (including communal and inter-communal plans for the management of household and similar waste) that integrate the fight against plastic pollution. **M2**: Train council staff in plastic waste life cycle management. **M3**: Provide RLAs with plastic waste collection equipment. **M4:** Set up units to store and transform plastic waste into various by-products.
		Optimize the recovery of plastic waste in the mass of household solid waste	**M1**: Encourage partnerships between producing companies and plastic collection, sorting and recycling operators. **M2**: Integrate community and private initiatives for the collection and recycling of plastics into environmental plans of RLAs. **M3**: Map CSOs working in pre-collection and recycling of plastics in order to support them (administratively and financially).
SO 3: Paradigm shift in the use of plastics as a material and development of alternative solutions			

SA 1: Strengthening education, awareness and communication actions.	Improve people's knowledge of the health and environmental impacts of plastics.	Strengthen the participation of NGAs in raising awareness and informing the population about the impacts of plastic pollution.	**M1:** Involve NGAs more in raising awareness on plastic pollution. **M2**: Integrate into the PNSEE themes of raising awareness of the population on the dangers of plastic, as well as on the sanctions foreseen for offenders. **M3**: Define specific school education programmes on the issue of combating plastic pollution in collaboration with MINEDUB and MINESEC **M4**: Encourage the culture of selling products in bulk and the refill system.
SA 2: Development of innovative research projects and programmes on plastic substitution.	Popularise alternative methods to the use of plastic packaging.	Carry out specific research on the plastic issue.	**M1:** Assess the socio-economic and environmental impacts of alternative materials to plastic..... **M2:** Carry out socio-anthropological diagnostic studies on plastic alternatives.... **M3:** Carry out campaigns to popularise the alternatives identified
		Develop and disseminate good practices and alternatives to plastics	**M1:** Develop and disseminate a guide to good environmental practice in the use and management of plastics **M2:** Encourage the conservation of products in ecological containers **M3:** Promote alternatives to plastic and make them more accessible to the population **M4**: Raise awareness among consumers and users to acquire goods made from materials containing recycled plastic.
SO 4: Strengthen financing mechanisms			
SA 1: Strengthening financial incentive mechanisms and optimise allocated resources.	Increase the budget allocated to the financing of activities to combat plastic waste pollution.	Mobilise additional financial resources to combat plastic pollution.	**M1:** Lobby for increased budgetary allocations for the fight against plastic pollution (Funds, TFP, FEICOM, BIP, taxes etc.)... **M2:** Strengthen the sectoral support of the members of the coordination committees and operational units **M3:** Revise the increase in the budget allocated to inspections and control as well as to regional committees for the fight against plastic pollution;
		Put in place incentives for actors involved in the fight against plastic pollution.	**M1**: Establish a tax exemption system for companies involved in plastic waste recycling..... **M2**: Provide incentives for private companies involved in the fight against plastic pollution. **M3**: Establish a plastic-free RLA operation within the ministry in charge of the environment through the granting of awards
SO 5: Establish a strategic coordination unit and a monitoring evaluation system			

SA 1: Strengthening the environmental information system.	Ensure the dissemination of standards and information through the establishment of operational electronic platforms.	Improve data collection for better decision making.	**M1**: set up a database on plastics. **M2**: Set up a traceability system on the origin of plastics. **M3**: set up a mapping information system highlighting the hotspots in terms of input and pollution, and industrial recovery sites.
SA 2: Strengthening the implementation and monitoring evaluation system.	Develop a monitoring and evaluation framework for the strategy	Set up a technical committee for the implementation of the strategy.	**M1:** Formulate indicators for monitoring and evaluation of the strategy. **M2**: Set up a Technical Committee for the implementation of the strategy **M3**: Ensure regular reporting and supervision on the issue of the fight against plastic pollution. **M4**: Draw up action plans to implement and monitor the strategic axes

PART THREE: STRATEGY ACTION PLAN, FUNDING, IMPLEMENTATION AND MONITORING-EVALUATION MECHANISM OF THE STRATEGY

This part presents the vision related to the financing of the strategy and the means of implementation to obtain this funding

I- ACTION PLAN OF THE STRATEGY

This section presents the operational objectives, activities, timetable, financial costs as well as persons in charge and actors to be involved. Many line ministries are indexed and must be involved for the successful implementation of this action plan. The financial costs are the result of an in-depth analysis of the needs inherent in each activity, which has been defined and selected in detail. The periodicity and the respect of the timetable for the realization of the activities of this action plan are of paramount importance and must be scrupulously applied for a more sustained fight against plastic pollution. This action plan is developed for a period of 7 years, from 2023 to 2029 as presented in Table 11 below.

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Table 11: Presentation of the strategy's action plan

OPERATIONAL OBJECTIVES	ACTIVITIES	TIMETABLE			Costs (In thousand CFA Francs)	Source of funding	OFFICIALS IN CHARGE	ACTORS
		SHORT TERM (YEARS 1 AND 2)	MEDIUM TERM (YEARS 3, 4 AND 5)	LONG TERM (YEARS 6 AND 7)				
Define an institutional arrangement supported by high-level political bodies	Adopt a presidential act that organizes the management framework for the fight against plastic pollution in Cameroon				20,000	PIB	PRIME MINISTER's OFFICE/MINEPDED	PRESIDENCY MINEPDED
	Initiate advocacy with CEMAC and ECCAS for the adoption of binding instruments for member countries to deal with plastic pollution				50,000	PIB (s)	MINEPDED/MINREX	MINEPDED MINREX
Strengthen multi-sectoral collaboration mechanisms to reduce plastic pollution	Revitalize the coordination committees for the fight against plastic pollution by engaging the technical and financial resources of all the administrations at central and decentralized levels				500,000	PIB TFP	MINEPDED	MINEPDED MINDDEVEL: MINHDU: MINPMEESA MINADER : RLAs
	Revise the composition of coordination committees and operational units by integrating non-governmental associations working in the fight against plastic at all levels of the value chain				1,000	PIB TFP	MINEPDED	MINEPDED MINDDEVEL: MINHDU: MINPMEESA MINADER : RLAs
	Create and ensure the operation of multi sectoral programmes/projects for the integration of young people reconverted from the import, production and distribution of plastics				500,000	PIB (s) RLAs TFP	MINEPDED	MINEPDED MINJEC RLAs MINPMEESA MINEFOP: TFP
Revise the texts in favour of a more restrictive regulation for the actors in the chain	Develop/revise texts by integrating penalties with deprivation of freedom for the violators of the regulations				80,000	PIB (s) TFP	MINEPDED/MINJUSTICE	MINEPDED MINJUSTICE RLAs MINCOMMERCE:

	Strengthen the formulation of EPR in texts governing the regulation of the exploitation of plastic packaging in Cameroon				5,400	PIB TFP	MINEPDED	MINMIDT : MINCOMMERCE: RLAs
	Draw up a specific regulation on single-use plastics				29,000	PIB TFP	MINEPDED	MINHDU: MINDDEVEL:
	Develop texts that clarify the responsibilities of RLAs in the fight against plastic pollution				27,000	PIB (s) TFP	MINEPDED/RLAs	MINHDU: MINDDEVEL: RLAs
	Formulate coercive texts for the effective implementation of the directives of specifications related to the recycling of plastic materials produced, imported or marketed				20,000	PIB TFP[8]	MINEPDED	MINEPDED MINDDEVEL: MINMIDT : MINPMEESA RLAs ANG
Establish circular economy in regulatory instruments in relation to the fight against plastic pollution	Update the national waste strategy with the action plan adopted at the end of the first national waste conference to orient waste management towards circular economy				50,000	PIB TFP	MINEPDED	MINEPDED MINEPAT MINDDEVEL: MINHDU: MINCOMMERCE: RLAs ANG
	Revise texts (Order No. 001MINEPDED on environmental permit) in favour of the promotion of circular economy with emphasis on plastic waste management				0	PIB	MINEPDED	MINEPDED

[8] Technical and financial partners who have technical expertise and a specific annual field of intervention in the fight against pollution (e.g: KFW)

Strengthen regulations in favour of a specific framework to combat plastic waste pollution in the marine environment	Establish a regulatory framework with a national response plan that integrates the specific aspects of marine plastic pollution				40,000	PIB TFP Donors[9] ANG	MINEPDED	MINEPDED MINDDEVEL: MINMIDT : MINPMEESA MINHDU: MINCOMMERCE: TFP ANG
	Draw up a model municipal by-law that can be duplicated and adapted to support the fight against plastic pollution in general and specifically in the coastal environment				20,000	PIB TFP Donors ANG	MINEPDED	MINEPDED MINDDEVEL: MINMIDT : MINPMEESA MINTOUR MINHDU: MINCOMMERCE: TFP ANG
	Implement a regulatory instrument aimed at contributing to the prevention and management of plastic waste at the national level (limitation of discharges into the sea, reduction of the impact of economic activity on the marine environment, obligation to recover waste present in the aquatic environment)				10,000	PIB TFP	MINEPDED	MINEPDED MINDDEVEL: MINMIDT : MINPMEESA TFP ANG
Develop sustainable production methods through the use of plastics	Support companies involved in waste plastic-based production.				1,000,000	PIB (s) TFP Donors ANG	MINEPDED MINDDEVEL: MINPMEESA	MINFI MINEPAT MINMIDT : MINPMEESA MINHDU:

[9] International funding Institution with respect to environment and sustainable development (e,g: African Development Bank and World Bank)

	Encourage post-consumer packaging recovery actions				300,000	PIB (s) TFP Donors RLAs	MINEPDED RLAs	MINPMEESA RLAs
	Develop and popularize alternatives to plastic				5,000	PIB TFP RLAs ANG	MINEPDED	MINCOMMERCE: RLAs MINMIDT : MINDDEVEL: MINHDU: ANG
Encourage synergies between companies working in the same field for a better optimization of resources	Encourage RLAs to promote the creation of recycling units for different types of plastic				250,000	PIB (s) FNEDD[10] TFP	MINEPDED MINPMEESA MINHDU: RLAs	MINEPDED MINPMEESA ANG
	Create networks of companies involved in recycling for better technical collaboration				29,000	PIB (s) FNEDD TFP	MINEPDED	MINEPDED MINPMEESA ANG
	Operationalize the national waste exchange				0	PIB	RLAs	MINEPDED MINDDEVEL: ANG
Build the technical and logistical capacities of RLAs in terms of plastic waste management.	Support RLAs in drawing up environmental plans (including communal and inter-communal plans for the management of household and similar waste) integrating the fight against plastic pollution				45,000	FNEDD TFP	MINEPDED	MINEPDED MINDDEVEL: MINHDU: ANG
	Train Council staff in life cycle management of plastic waste				45,000	FNEDD TFP ANG	MINEPDED	MINEPDED MINDDEVEL: MINHDU: ANG
	Provide RLAs with plastic waste collection equipment				400,000	PIB (s) TFP	MINEPDED	MINEPDED MINDDEVEL:

[10] National Fund for Environment and Sustainable Development (special allocation account)

						ANG		ANG
	Set up units to store and transform plastic waste into various by-products.				1,200,000	ANG TFP DONORS RLAs	MINEPDED	MINEPDED MINDDEVEL: ANG
Optimize the recovery of plastic waste in the mass of household solid waste	Encourage partnerships between producing companies and plastic collection, sorting and recycling operators.				102,000	ANG TFP DONORS	MINEPDED	MINEPDED RLAs MINHDU: ANG
	Integrate community and private initiatives for the collection and recycling of plastics into environmental plans of RLAs.				0	PIB	MINEPDED	MINEPDED RLAs MINHDU: MINDDEVEL:
	Map CSOs working in the pre-collection and recycling of plastics with a view to their support (administrative and financial)				220,000	TFP FNEDD ANG RLAs	MINEPDED	MINEPDED MINDDEVEL: MINHDU: MINPMEESA MINADER :
Strengthen the participation of NGAs in raising awareness and informing the population about the impacts of plastic pollution.	Involve NGAs more in raising awareness on plastic pollution.				0	PIB	MINEPDED RLAs	MINEPDED MINDDEVEL: MINHDU:
	Integrate into PNSEE themes of raising awareness of the population on the dangers of plastic, as well as on penalties provided for offenders.				20,000	PIB (s)	MINEPDED	MINEPDED MINDDEVEL: MINHDU: MINCOM MINEFOP: MINSANTE : MINESUP
	Define specific school education programmes on the issue of combating plastic pollution in collaboration with MINEDUB and MINESEC				100,000	PIB (s) TFP Donors Donors	MINEPDED	MINEPDED MINEDUB MINESEC
	Encourage the cultivation of bulk sales and refill system				31,000	TFP PIP (s)	MINCOMMERCE:	MINEPDED RLAs

Carry out specific research on the issue of plastics	Assess the socio-economic and environmental impacts of alternative materials to plastic				130,000	TFP PIB (s)	MINEPDED	MINEPDED MINEPAT NIS
	Carry out socio-anthropological diagnostic studies on plastics alternatives				55,000	PIB (s) TFP	MINEPDED	MINAS MINEPDED INS/MINEPAT
	Conduct outreach campaigns on identified alternatives				30,000	TFP PIB	MINEPDED	MINAS MINEPDED NIS/MINEPAT MINAT
Develop and disseminate good practices and alternatives to plastic	Develop and disseminate a guide on good environmental practices in the use and management of plastics				19,000	FNEDD TFP	MINEPDED	MINEPDED MINEPAT NIS
	Encourage conservation of products in containers				9,000	TFP PIB	MINEPDED	MINEPDED MINEPAT MINHDU ANG RLAs
	Promote alternatives to plastics and make them more accessible to the population				12,000	TFP PIB	MINEPDED	MINEPDED MINEPAT RLAs ANG
	Raise awareness among consumers and users to acquire goods made from materials containing recycled plastic.				1,000,000	TFP DONORS PIB	MINEPDED	MINEPDED MINDDEVEL: MINPMEESA RLAs/ANG
Mobilize additional financial resources to combat plastic pollution.	Lobby to increase budgetary allocations for the fight against plastic pollution (Funds, TFP, FEICOM, PIB, taxes etc.)				0	PIB	MINEPDED Sectoral members of coordination committees and operational units	MINFI MINDDEVEL: MINEPAT MINPMEESA

	Strengthen sectoral support of members of coordination committees and operational units				0	PIB	MINFI	MINEPDED
	Increase budget allocated to inspections and monitoring and to regional plastic pollution control committees;				0		MINEPAT MINEPDED	MINFI
Put in place incentives for the main stakeholders in the fight against plastic pollution	Establish a tax exemption system for companies involved in plastic waste recycling				2,000	TFP MINFI	MINEPDED MINCOMMERCE:	MINDDEVEL: MINHDU: MINMIDT : MINFI
	Provide incentives for private companies involved in the fight against plastic pollution.				1,000	MINFI PIB	MINFI MINEPDED	MINFI ANG MINEPDED
	Institute a plastic-free RLA operation within the ministry in charge of environment through the granting of awards				1,000	PIB	MINFI	MINEPDED MINDDEVEL: RLAs ANG
Improve data collection for better decision making	Establish a database on plastics				30,000	TFP FNEDD	MINEPDED	RLAs MINHDU: CUSTOMS MINCOMMERCE:
	Set up a traceability system on the origin of plastics				35,000	TFP FNEDD	MINEPDED	RLAs MINHDU: CUSTOMS
	Set up a mapping information system highlighting the hotspots in terms of input and pollution, and industrial recovery sites.				80,000	TFP FNEDD	MINEPDED	RLAs MINHDU:
Set up a technical	Formulate indicators for monitoring				30,000	PIB	MINEPDED	MINDDEVEL:

committee for the implementation of the strategy	and evaluation of the strategy					TFP		MINEPAT
	Set up a technical committee for the implementation of the strategy				0	PIB	MINEPDED	
	Ensure regular reporting and supervision on the issue of the fight against plastic pollution.				270,000	TFP PIB	MINEPDED	RLAs MINDDEVEL: MINEPAT MINCOMMERCE: MINDDEVEL: MINFI MINMIDT : MINSANTE : MINPMEESA
	Draw up action plans to implement and monitor the strategic axes				50,000	TFP PIB	MINEPDED	RLAs MINDDEVEL: MINEPAT MINCOMMERCE: MINDDEVEL: MINFI MINMIDT : MINSANTE : MINPMEESA
	TOTAL				**6,933,400**			

The action plan drawn up for the implementation of the SNLPP covers the period 2023-2029 with an estimated total cost of six billion seven hundred and sixty-three thousand four hundred francs (6,763,400) CFA francs.

II- FINANCING OF THE SNLPP

In Cameroon, funding for the environment sector must come from several sources. For a good financing plan to fight against plastic waste pollution, it will be necessary to put emphasis on various categories of financing.

II.1- Institutional means

In Cameroon, internal funding for the environmental SNLPP must come from the budget of MINEPDED and also from other administrations involved in the management of the sector. Possibilities of co-financing are to be envisaged in the context of the application of the principle of Extended Producer Responsibility (EPR) in accordance with the provisions of Law No. 96/12 of 5 August relating to environmental management.

II.2- Technical means

The setting up of an integrated and dynamic tax system for the fight against plastic pollution applicable at the council level will make it possible:

- to place the issue of plastic among the key problems that slow down economic and health development;
- to improve the collection of communal taxes which could also be a good financial operation for the councils;
- to implement the polluter-pays principle and the carbon tax;
- Support the Forest and Environment Sector Programme (PSFE) finalized in 2002, which has made environmental information and awareness-raising its first component with the following objectives
  - raise the population's awareness of environmental issues
  - control, manage and provide environmental information.
- - Continue the application of the law relating to environmental management adopted at the same time as the NEMP in 1996, which encourages the participation of the population and all actors in environmental management, particularly through:
  - free access to environmental information;
  - consultative mechanisms such as the National Advisory Commission on Environment and Sustainable Development, which is in charge of national policy on environment and sustainable development and the coordination and monitoring of this policy, with particular attention to the implementation of activities arising from Agenda 21;
- ensuring the representation of the population and all actors in environmental management within the advisory bodies on environment.

II.3- Financial means

II.3.1- External funding

Mechanisms must be put in place so that development partners and/or various and numerous technical and financial partners (TFPs), which may be multilateral and bilateral, can contribute to the SNLPP through external funding.

For multilateral funding, it will be necessary to develop structured partnerships so that they can themselves ensure the repayment of the resources mobilized for their implementation, with financing agencies, donors and organizations such as:

- African Development Bank
- - World Bank Group
- - European Union;
- - French Development Agency (AFD),
- - UN-Habitat
- - Plan Cameroon
- - UNESCO
- - Global Environment Facility (GEF)
- - United Nations Development Programme (UNDP)
- - United Nations Environment Programme (UNEP)
- - GIZ;
- Etc.

A major overhaul of the project preparation process is needed, taking into account the financial, economic, social and health benefits. It will be necessary to stimulate the institutions that are partners in development, such as: WWF, US Office of Foreign Disasters Assistance, JICA, GIZ, SNV, GWP, etc.; the civil society as well as international and national NGOs, to take an interest in the "plastic" problem.

II.3.2- Bilateral funding

This type of financing is all the more important as it involves financial resources mobilized within the framework of bilateral international agreements, from the international community and friendly countries such as:

- - France ;
- - Germany ;
- - Netherlands ;
- - England ;
- - Japan ;
- - China ;
- - Italy ;
- - Canada ;
- - Belgium ;
- - etc.).

III- OPERATIONAL IMPLEMENTATION MECHANISM OF THE STRATEGY

The SNLPP is a document that guides the efforts and leverages on which to exert pressure for a proper fight against plastic pollution. The data for this work comes from previous work with all stakeholders throughout the country without discrimination. This section briefly presents the implementation mechanisms to be used for optimum success, the best monitoring and evaluation, as well as those responsible and their missions in accordance with legal provisions.

III.1- Reminder of the actors involved in implementation and their roles

The actors involved in this operational implementation are numerous, their roles and their synergy of action will allow a perfect success of the operationalization of this SNLPP.

III.1.1. Ministry of Environment, Protection of Nature and Sustainable Development

This ministry is the main official involved in the implementation of this SNLPP. According to **Decree No. 2005/117 of 14 April 2005 to organize the Ministry of Environment and Protection of Nature**, there are several sub-department that are directly involved in this fight:

- the preparation and publication of biennial reports on the state of environment, in collaboration with relevant administrations, including reports on the situation of plastics (**SUB-DEPARMENT FOR ENVIRONMENTAL PLANNING**);
- the development of strategies for the supervision of populations, associations/NGOs in the area of environmental protection, including those concerning plastics among these populations (**SUB-DEPARTMENT FOR SUPERVISION AND LOCAL PARTNERSHIP**);
- the development and implementation of information and awareness-raising policy relating to environment and nature protection at all levels of socio-economic and cultural life, including a special section for the plastic variable (**SUB-DEPARTMENT FOR AWARENESS-RAISING AND ENVIRONMENTAL EDUCATION**);
- developing and monitoring compliance with environmental norms, guidelines and standards, including those concerning plastic producers and consumers (**DEPARTMENT OF STANDARDS AND CONTROL**);
- the development of taxation incentives for environmental protection, in liaison with the administrations concerned, including the application of the polluter pays principle and extended producer responsibility for plastics (**SUB-DIVISION FOR ENVIRONMENTAL TAXATION**).

III.1.2. Ministry of Trade

This ministry is also involved in the SLNPP as it is responsible for the development and implementation of government policy in the field of trade. Much of the plastic found in soils,

rivers, drains and oceans comes from trade. This ministry by **Decree No. 2012/513 of 12 November 2012**, is responsible for:

- regulating the supply of consumer products, in conjunction with the relevant administrations, exclude the involvement and use of non-regulatory plastic in these exchanges (**DIVISION OF INTERNAL TRADE**);
- monitoring imports and exports, prohibit imports of non-regulatory plastics (**DIVISION OF FOREIGN TRADE**);
- monitoring the application of legislation and regulations on trade, particularly on non-regulatory plastics (**NATIONAL BRIGADE OF CONTROLS AND REPRESSION OF FRAUD**);

III.1.3. Ministry of Decentralization and Local Development

This ministry has a strategic role in the SNLPP, as its main responsibility lies in the development, monitoring, implementation and evaluation of Government's decentralization policy, as well as the promotion of local development. Through RLAs, MINDEVVEL will be able to

- Monitor activities related to Sanitation and Hygiene for the eradication of plastics through the **SUB-DIVISION OF BASIC LOCAL SERVICES;**
- Enforce legislation and regulations for crackdown on markets using non-regulated plastic (**MUNICIPAL POLICE AND LOCAL PUBLIC SERVICES UNIT**)

II.1.4. Ministry of Housing and Urban Development

By Presidential Decree No. 2018/190 of 2 March 2018, MINHDU can work in close collaboration with RLAs and the company in charge of waste collection to develop programmes to encourage the population to use their plastics properly.

III.1.5. Ministry of Public Health

This ministry is responsible for the development and implementation of Government's public health policy. Health requires a clean environment, and MINSANTE, through its medical activities via its hospitals, manages a large quantity of plastic waste each year. This waste is very dangerous, apart from the fact that some of it is single-use plastic waste (syringe tubes, sample tubes, drug packaging bags, infusion bags, etc.). MINSANTE by Decree No. 2013/093 of 3 April 2013 is responsible for developing a national policy for the management of this waste and ensuring the applicability of measures.

III.1.6. Ministry of Mines, Industry and Technological Development

This ministry is responsible for the development and implementation of technological development strategies in the different sectors of the national economy. Plastics are an important raw material for some companies. Initiatives related to reuse and recycling of

plastic with a view to developing exploitable tools using recycled plastic should be encouraged.

III.1.7. Ministry of Finance

The SNLPP requires huge funding for its successful implementation. To this end, MINFI should find ways to broaden its tax base, especially among plastic producers and users, so that these funds can be used to support the operational teams.

II.1.8. Other actors

II.1.8.1. Councils

Councils must be dynamic and actively participate in the SNLPP through awareness raising and repression of the offending population. Projects aimed at supporting CSOs must be developed and supported by the competent national or international bodies.

II.1.8.2. Companies operating in the field of waste recycling

These companies are grouped around formal and informal entities that often have the same internal missions but different means of execution. They need to get closer to RLAs in order to match their activities with those of RLAs where they operate. These entities should not only bring their expertise to the government, but also work as an observer and indirect monitor of the actions aimed at operationalizing the fight against plastic pollution.

III.2. Institutional coordination mechanism

For the coordination of the SNLPP, the institutional coordination mechanism will be made up of several sectors and several other actors who can intervene efficiently for the smooth running of the SNLPP.

III.2.1. Two (2) primary actors MINEPDED/MINCOMMERCE

Their role is to ensure the effective implementation of actions that contribute to the operationalization of the SNLPP. These are two officials, one from the Department for Promotion of Sustainable Development and the other from the Department of Foreign Trade, shall be responsible for monthly coordination of the SNLPP.

III.2.2. MINEPDED/MINCOMMERCE regional units

These units will have to animate and promote the SNLPP as a whole at the regional level by facilitating related activities while integrating technical and administrative inputs from other sectors.

II.2.3. Divisional actors

Always in pairs (MINEPDED/MINCOMMERCE representative), they must encourage other actors in the existing sectors at their level to take actions that could lead to positive action in favour of the SNLPP.

II.2.4. Focal points in councils

They are responsible for leading the process in the councils and traditional chiefdoms.

II.2.5. Independent supports

These are CSOs and NGOs that will participate in the implementation of the SNLPP either directly (by directly executing actions of the SNLPP logical framework) or indirectly (by accompanying one of the three categories of people responsible for the implementation of the SNLPP).

III.3- Information system

Good use should be made of the many environmental information and communication platforms and/or frameworks. These structures should inform, communicate and exchange information on issues related to plastic pollution.

- **MINEPDED's communication unit**

It will have to enhance its missions, particularly the following

- design and formatting of specific messages of the Minister, in order to always draw attention to the plastic issue;
- collection, analysis and conservation of journalistic and audio-visual documentation on the plastic problem
- exploitation of articles on plastic pollution issues published in the national and international press;
- interest the Centre for Information and Documentation on the Environment (CIDE) in the plastic issue by setting up a mechanism or an electronic platform for consultation and exchange;
- Motivate the sub-department for environmental awareness and education to develop and implement an awareness-raising policy on the fight against plastic pollution
- Make use of the central coordination and consultation structures for environmental management, which can play a major role in the fields of environmental information and communication. These are bodies that bring together several ministries and other public or private institutions. These platforms contribute to the consultation, harmonization and coordination of government policy on environment in Cameroon.

These structures include

- the Inter ministerial Committee on Environment;
- the National Consultative Commission for Environment and Sustainable Development
- the National Water Committee
- the National Man and Biosphere Committee.

III.4- Monitoring and evaluation of the SNLPP

This section presents the implementation and operationalization of the monitoring and evaluation of the fight against plastic pollution, which will be carried out at two levels: the strategic level and the operational level.

III.4.1. Monitoring

III.4.1.1. Strategic level

Steering and monitoring of the strategy shall be placed under the authority of an inter-ministerial steering committee, set up by the Prime Minister in order to give a better chance

to the execution of the decisions taken by this committee. The profile of its members must be raised. To this end, the commitments made by high-level decision-makers will more likely be executed by the heads of the decentralized and local services. An Order from the Prime Minister will therefore specify the profile of the members of all the coordination bodies, their missions, attributions and modes of operation. This Steering Committee for the implementation of the strategy will therefore be assisted by a technical committee for monitoring and evaluation alongside a technical secretariat.

The Technical Monitoring Committee shall be responsible for the strategic coordination of interventions to combat plastic pollution. As such, it shall be in charge of the animation and multi sectoral coordination of interventions and the technical validation of planning documents and performance reports developed by the Technical Secretariat before their transmission to the steering committee. It shall essentially deal with aspects that cut across the various ministerial departments and will make it possible to remove technical bottlenecks that could prevent the achievement of the projected results. The technical monitoring committee shall be chaired by the Secretary General of MINEPDED and should include, among others, the heads of the administrations concerned by the issue and the Coordinator of the Technical Secretariat of the steering and monitoring committee.

The Technical Secretariat of the steering committee: its tasks shall include operational coordination and monitoring-evaluation of the implementation of the strategy; suggestions for corrective measures for any poor performance observed; participation in the design of tools for collecting, analysing and disseminating data in close collaboration with the other administrations; providing feedback to stakeholders on the performance achieved; drafting the minutes of meetings

III.4.1.2. Operational level

In order to facilitate the multi-sectoral mobilization of actors around the objectives of the fight and for greater coherence and efficiency, the interdependent coordination bodies set up at the regional and divisional levels under Circular Letter No. 96/C/CAB/MINEPDED/ of 10 April 2014 will be revitalised. At the regional level, as planned, the coordination committee shall be placed under the authority of the Governor. At the divisional level, the committee shall be headed by the Senior Divisional Officer. This committee shall be joined by an operational unit responsible for carrying out compliance checks in markets, production, storage and marketing sites for plastic packaging. The steering and monitoring-evaluation system of the SNLPP is summarized in Figure 13 below:

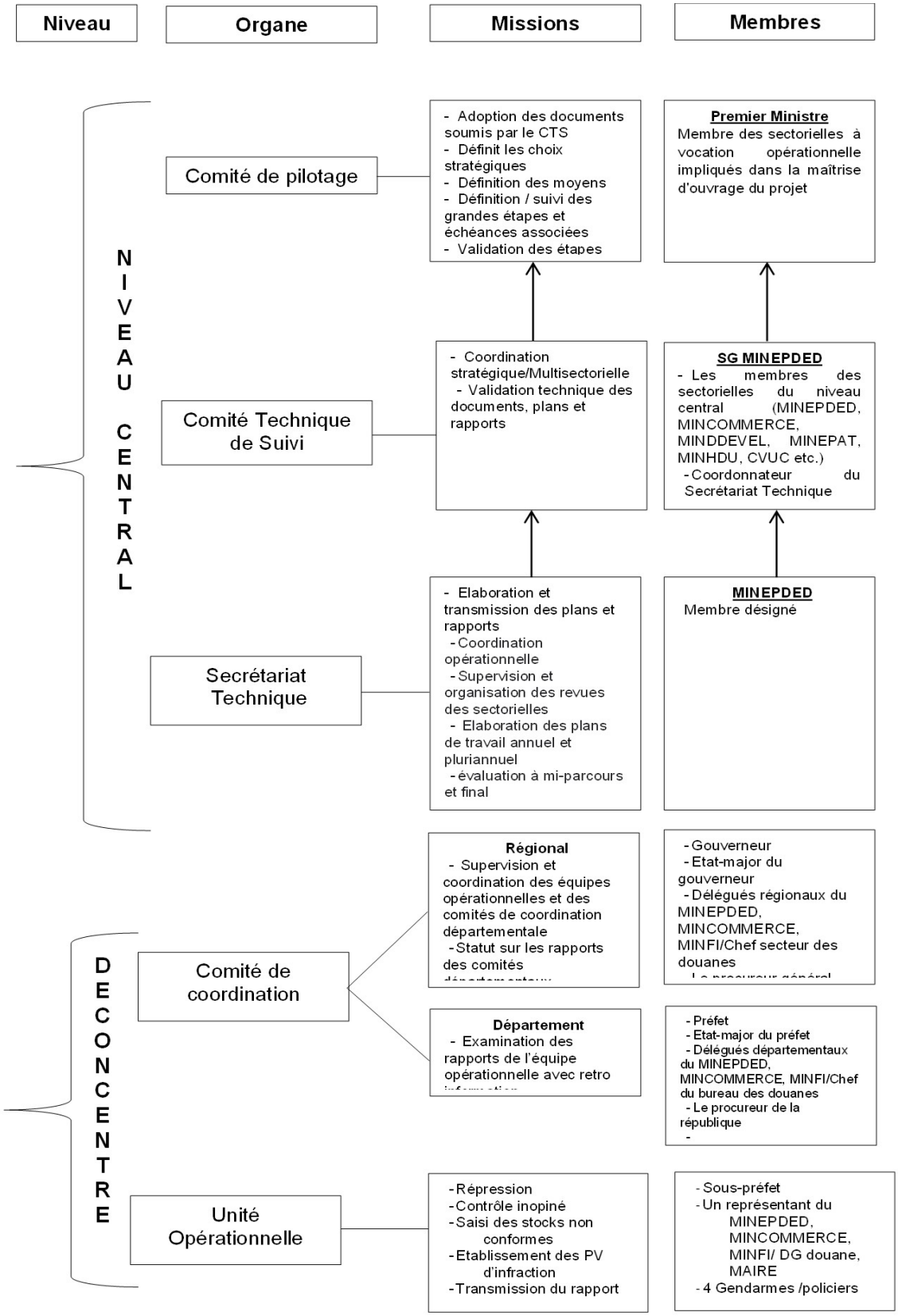

Figure 13: Steering and monitoring-evaluation system of the SNLPP

III.4.2. Evaluation of the SNLPP

The SNLPP shall be evaluated through the following three modalities: monitoring of the implementation of interventions, mid-term evaluations and final evaluation. Monitoring will need to be continually strengthened to meet the demands for greater accountability in the use of resources, clearer evidence to support informed decision-making and more concrete lessons learned to guide future development interventions and ensure greater effectiveness.

a) Monitoring the implementation of interventions

Monitoring of the implementation of interventions shall take place every three months and will allow the assessment of trends in performance to adjust planned interventions. During this supervision, evaluations of the system shall be carried out on the basis of (i) the six-monthly supervision reports of each regional coordination committee containing the reports of the divisional committees; (ii) the reports on the execution of the action plan by all the institutions or bodies responsible for reporting on the effectiveness of the implementation. In addition, technical, financial and accounting audits may be carried out annually.

b) Mid-term evaluation

After 42 months of implementation of the strategy, a mid-term evaluation shall be carried out to assess the level of achievement of the impact indicators and readjust the processes if necessary.

c) Final evaluation

This will be carried out in 2029 so that it can be included in the evaluation of the NDS30, with which it is aligned. It shall assess the level of achievement of the strategy's objectives and the impact of the action plan implemented, and will then draw lessons for the development of a new strategy, if necessary. The final evaluation will also assess the management aspects: administrative, financial and technical implementation of the action plan.

III.5- Communication mechanism

Communication is the driving force behind the good understanding between two parties. It is firstly, the creation of a framework for exchange between the population and MINEPDED. This framework will allow all information concerning the SNLPP to be shared, but also to listen to the actors express themselves for mutual understanding. It is the basis for negotiation. According to the actors we met, whether on the side of the technical services or that of the local authorities, the major challenge of this project is communication. As a reminder, this is not the first time that Cameroon aims to fight against plastic pollution. However, all these projects have failed, one of the main causes being the lack of communication. The communication strategy discussed here consists of defining not only the objectives and targets to be reached in addition to those already known, but also the means to achieve them. The media chosen will convey the message to the various audiences concerned. The choice of these means was made according to two principles: on the one hand, their ability to fully convey the message, and on the other, their capacity to reach the target. The following media should be used

- the press

- radio/television/film. Advertising ;
- Interviews;
- Posters
- public transport;
- Internet Advertising networks of influencers

III.6- Implementation related Risks

Implementing this SNLPP involves a greater or lesser degree of risk, which should be carefully considered. Just like the levels of decision (current, operational, strategic), it is possible to distinguish the corresponding levels of risk.

The strategic risks themselves are of two kinds:

- Risks with potentially serious consequences (questioning the viability of the SNLPP).
- Risks with consequences likely to cause the strategy to fail (risks that do not jeopardise the sustainability of the SNLPP but are sufficiently serious and/or frequent to cause the strategy to fail).

For foreseeable risks, it should be possible to assess their criticality and to put in place measures for dealing with them. For unpredictable risks (the event, hazard or accident that was not imagined), it will be more difficult to foresee them and therefore to fully guard against them. This classic management of risk to be observed comprises 2 phases: the identification of risks and the evaluation of risks.

III.6-1- **Risk identification**

Strategic risks should be assessed in relation to operational objectives

Table 12: Likely risks of the implementation of the SNLPP

Risks area
Risk of non-commitment of high-level political bodies.
Risk that multi-sectoral collaboration to reduce plastic pollution is not achieved.
Risk of laxity in revising the texts in favour of more binding regulations for the actors in the chain.
Risk of not understanding the principle of establishing a circular economy in the regulatory instruments related to plastic pollution control.
Risk of neglecting to develop sustainable production methods through the use of plastics.
Risk of not developing synergies between companies working in the same field for a better optimization of resources.
Risk of lack of technical and logistical capacities of the RLAs in terms of plastic waste management.
Risk of neglecting NGAs in the fight against pollution.

III.6-2- Risks assessment

These risks are assessed according to their potential to affect the implementation of the desired strategy, in other words, the obstacles or impediments to the achievement of the strategic goals. From the risk inventory, each risk factor is assessed and ranked to determine acceptable levels. The most robust assessment method was to assign each risk factor a criticality score as shown in Table 13 below:

Table 13: Criticality risk assessment matrix

Probability of occurrence / Impact Severity	Unlikely	Possible	Uncertain
Minor	Risk that multi-sector collaboration to reduce plastic pollution will be denied.	Risk of not developing synergies between companies working in the same field for a better optimisation of resources.	Risk of laxity in revising the texts in favour of more restrictive regulations for the actors in the chain.
Moderate	Risk of lack of technical and logistical capacities of the RLAs in terms of plastic waste management.	Risk of non-commitment of high-level political bodies.	Risk of neglecting to develop sustainable production methods through the use of plastics.
High	Risk of neglecting NGAs in the fight against pollution.		Risk of not understanding the principle behind establishing a circular economy in regulatory instruments related to combating plastic pollution

GENERAL CONCLUSION

This document constitutes the National Strategy for the Fight against Plastic Pollution. It is the result of a participatory and consensual methodological approach, which took into account the points of view of all public and private stakeholders. Indeed, in accordance with the prescriptions of the project owner, all the technical departments of MINEPDED, some central and decentralized services of the administrations concerned by the issue of plastic pollution, national and international organizations, technical partners, NGAs, and some identified local elected representatives, participated in its elaboration. Through this structured approach based on an analysis of administrative, human, environmental and economic data as well as the experiences of countries strongly committed to the fight against plastic pollution, a situation review has made it possible to identify the types of factors that influence this fight.

The diagnostic report drawn up following a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis identified the various major problems linked to plastic pollution and proposed the main strategic orientations on the legal-institutional, technological, financial, socio-cultural-communication and circularization of the economy levels.

A steering and monitoring-evaluation committee has been suggested to coordinate pollution control interventions at the strategic level, while at the operational level, the regional and departmental committees set up by Circular Letter No. 096 /C/CAB/MINEPDED of 10 April 2014 on compliance control and repression will be revitalised.

The action plan developed for the implementation of the SNLPP covers the period 2023-2029 with a total estimated cost of six billion seven hundred and sixty-three thousand four hundred francs (6,763,400) CFA francs.

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Appendix 1: The SNLPP logical framework (OG, OS, LOV, verification source, hypotheses)

SUMMARY DESCRIPTION	Planning Diagram Objectively verifiable indicator	Source of verification
Obs 1: Strengthen the existing institutional and legal framework for a better coordination of the implementation of interventions	- A presidential act organising the management framework for the fight against plastic pollution is issued	
Obo 1.1: Define an institutional arrangement supported by high-level political bodies	- An adapted and functional decision-making framework is put in place at the level of the Prime Minister's Office	Act of creation and statement of facts signed
Obo 1.2 : Strengthen multi-sectoral collaboration mechanisms to reduce of plastic pollution	- Coordination and control committees are revitalised - Multi-sectoral integration programmes for young people reconverted to plastics recovery are set up	
Obs2: Strengthen planning and coordination measures to encourage the reuse and recycling of plastic packaging	Coercive texts for the application of EPR for producers and importers of plastic packaging are developed and applied	
Obo 2.1: Revise the texts in favour of a more binding regulation for the actors of the chain	- Texts on the deprivation of freedom for violators of EPR coercive texts are elaborated and applied	
Obo 2.2: Establish the circular economy in regulatory instruments related to the fight against plastic pollution	Texts encouraging reuse, recycling and recovery.	
Obs 3: Popularise the environmental dimension in the design of products	- A deposit system for PET initiated at least for the cities of Yaoundé and Douala	
Obo 3.1 : Develop sustainable production methods by using plastics	- Creation of at least one company involved in waste-based production	

SUMMARY DESCRIPTION	Planning Diagram Objectively verifiable indicator	Source of verification
Obo 3.2 : Encourage synergies between companies working in the same field for a better optimisation of resources	- On-site transformation of PET by CSOs	
Obs4 : Build the capacities of the RLAs and NGAs for the collection, recovery and valorisation of plastic waste	- Effective collection and transformation of plastics at the level of urban RLAs with state-of-the-art recycling equipment	
Obo 4.1: Improve the technical and logistical capacities of the RLAs in terms of plastic waste management	Existing plastic waste storage and processing unit	
Obo 4.2: Strengthen the participation of NGAs in the fight against pollution	- CSOs mapped - Councils and CSOs collaborating through monthly activity reports submitted by CSOs working in the fight against plastic pollution to RLAs	
Obs 5: Improve the knowledge of the population on the health and environmental impacts of plastics	Environmental awareness units installed at the level of neighbourhood chiefdoms	
Obo 5.1: Strengthen the role of NGAs in raising awareness and informing the population about the impacts of plastic pollution	A recycling centre for plastic management actors created and providing free training	
Obs 6: Popularise alternative methods to the use of plastic packaging	Products made from recycled plastics found in large public areas	
Obo 6.1: Conduct research specific to the plastic issue	At least 10 masters degrees defended each year on the issue of plastic pollution and published articles resulting from this work in international peer-reviewed journals	
Obs 7: Design an efficient financial model to prevent and reduce plastic waste pollution		
Obo 7.1: Mobilise additional financial resources to combat plastic pollution	15% rebates granted each year in a gradual way to companies involved in plastic waste recycling (70%	

SUMMARY DESCRIPTION	Planning Diagram Objectively verifiable indicator	Source of verification
	achieved after 5 years)	
Obo 7.2: Pooling of funding sources for plastic pollution control	Operational units and active RLAs in the fight against plastic pollution thanks to funding from at least 5 TFPs	
Obs 8: Ensure the dissemination of standards and information by setting up operational electronic platforms	An operational unit for monitoring and disseminating data on plastics at the level of the CIDE	
Obo 8.1: Improve data collection for better decision making	An effective and operational traceability system for the origin of plastics	
Obs 9: Develop a monitoring and evaluation framework for the strategy	Indicators for monitoring and evaluation adopted and objectively verifiable	
Obo 9.1: Set up a technical committee for the strategy	A technical committee for the monitoring and evaluation of the strategy in operation	Activity reports

Appendix 2: Methodological Approach

The study entrusted by MINEPDED to ETS SUNRISE SARL by Order letter No. 0003/LC/MINEPDED/CIPM/2022 of 23 August 2022 consisted in elaborating the National Strategy for the Fight against Plastic Pollution. It was carried out by means of a diagnosis based on national and international literature and on a well conducted SWOT (Strength, Weakness, Opportunity and Threat) analysis. More concretely, the elaboration of the strategy led the SUNRISE expert group to carry out two sets of activities: administrative and technical activities.

On the administrative side, the group of experts worked in close collaboration with the project owner. This support consisted of the facilitation in the production and distribution of correspondence, planning of data collection in the field and harmonisation of the understanding of the assignment.

On the technical side, a scoping meeting and several meetings allowed agreement on the implementation approach.

The following activities were carried out: development of tools, training of data collection teams, data collection, processing and analysis

The SWOT analysis of the collected data/information has brought out the Strengths, Weaknesses, Opportunities and Threats and identified the different major problems related to plastic pollution, formulated in a validated diagnostic report, after taking into account the amendments of the different stakeholders at the review meeting.

The main strategic and operational orientations, i.e. strategic options, strategic axes, strategic objectives, operational objectives and implementation measures were defined in the framework of the development of the strategy itself.

List of structures targeted and selected for the physical survey

No.	REGION	CITY	ACTORS TO BE MET	Number of questionnaires	Number of interviewers
1	CENTRE	YAOUNDE	**CENTRAL ADMINISTRATIONS** MINEPDED ; MINADER, MINAT, MINHDU, MINCOMMERCE, MINDEVVEL, Customs GM, First instance Prosecutor of Yaoundé **REGIONAL ADMINISTRATIONS** MINEPDED and MINCOMMERCE REGIONAL DELEGATIONS **RLAs**: Yaoundé City Council, CAY5-CAY6 **Administrative authority**: Mfoundi 's Senior Divisional Officer of Mfoundi **CUSTOMS:** HALCOMI (CE, SU1, EAST) **CSOs and enterprises:** Solidarité technologie, HYSACAM, CIPRE, AGROPO, NAME RECYCLING	Administrations:10 Administrative authorities:02 Prosecutors 00 CSOs recycling: 04 Consumers/Wholesalers of plastics: 02 traders, 15 households, 50 RLAs: 03	**03**
2	LITTORAL	DOUALA	**REGIONAL ADMINISTRATIONS** REGIONAL DELEGATION FOR MINEPDED, MINCOMMERCE, MINJUSTICE (Ndokoti Public Prosecutor) **DIVISIONAL DELEGATE** : MINCOMMERCE, MINEPDED **RLAs**: Douala City Council, CAD5-CAD3 **ADMINISTRATIVE AUTORITY**: Senior Divisional Officer of Wouri **CUSTOMS:** HALCOMI (Lit, SW and SO) **Producing/importing companies: SABC, source du pays, PANZANI, NDS SARL** **Private Operators and Non-Governmental Associations:** REDPLAST, BOCOM, MULTIPLAST, AGROCAM, Cameroon Packing Company ND, BOCAM	Administrations:05 Administrative authorities:02 Prosecutors 02 CSOs recycling: 06 Consumers/Wholesalers of plastics: 05/ traders 15/ Households 50 RLAs: 03	**02**
3	NORTH	GAROUA PITOA NGONG	**REGIONAL ADMINISTRATIONS:** REGIONAL DELEGATION FOR MINEPDED, MINCOMMERCE, MINJUSTICE (Prosecutor) Benoué Divisional Delegation MINEPDED, **RLAs**: Garoua City Council, Ngong Municipality, Pitoa Municipality **Administrative authority**: Senior Divisional Officer of Bénoué	Administrations:04 Administrative authorities:02 Prosecutors 0 Consumers/Wholesalers of plastics: 02/ traders 05/ Households 10	**01**

		09	**CUSTOMS:** HALCOMI (NO, FN et AD)	RLAs: 03	
4	ADAMAWA	MEIGANGA **(05)**	**Divisional Delegation (Meiganga)** : MINCOMMERCE Mbere; MINEPDED Mbere, Mbere division Public Prosecutor **RLAs**: Meiganga Municipality **Administrative authority**: Senior Divisional Officer of Mbere	Administrations:02 Administrative authorities:01 Producers Consumers/Wholesalers of plastics: 02/ traders 05/ Households 10 RLAs: 01	**01**
5	SOUTH-WEST	LIMBE	**REGIONAL ADMINISTRATIONS:** RD MINEPDED, MINHDU, MINCOMMERCE, MINJUSTICE (Limbe Prosecutor) **Divisional Delegation**: MINCOMMERCE, MINEPDED **RLAs**: Limbe Town Hall **Administrative authority**: Senior Divisional Officer of Fako **Producing company**: source du pays	Administrations:05 Administrative authorities:01 Prosecutors 01 Consumers/Wholesalers of plastics: 02/ traders 05/ Households 10 RLAs: 01	**01**
6	SOUTH	KYE-OSSI	MINJUSTICE (Ambam's Prosecutor) **Divisional Delegate: MINCOMMERCE and MINEPDED Ntem Valley** **RLA**: KYE-OSSI Mayor	Administrations:03 Administrative authorities:00 Prosecutors 00 Consumers/Wholesalers of plastics: 05 traders, 10 households, 30 RLA 01	**01**

APPENDIX 3: Stakeholders' contributions to the development of the national strategy to combat plastic pollution in Cameroon

OBSERVATION OF THE ''NORTH			
No.	**PART**	**AMENDMENT MADE**	**STATUS**
1	**General form**	Review the number on page 1 where it is written 10 Bold headings Integrate transition texts	**Included**
2	**Objectives**	Clarify the overall objective	**Included**
		Specify the related specific objectives	**Included**
3	**Legal framework**	When citing the Penal Code, also integrate Article R370 (12) on the penalty of 4,000 to 25,000 for violators of regulatory texts	**Included**
4	**Add some SWOT**	*Absence of repression at the level of RLAs by local elected officials who do not want to disappoint their electorate * Absence of checkpoints to monitor plastic traffic on certain roads. * Lack of targets to be reached (% of plastic waste to be eliminated within a certain period of time in the fight against plastic packaging). * Creation of a new vocation/activity at the level of the NGAs for the recovery of plastic waste *Absence of a governmental programme for the popularisation and multiplication of plant alternatives such as marantacea, banana and teak leaves..... (the over-exploitation of these alternatives without this programme could cause the loss of biodiversity)	**Included**
COMMENTS BY MR BELA MANGA			
5	**General objective**	proposal made	**Included**
6	**Specific objectives**	proposal made	**Included**

7	**SWOT analysis to be added**	▪ Existence of a collection and recovery system for plastic waste ▪ Absence of communal or inter-communal plans for the management of household and similar waste; ▪ Absence of monitoring and evaluation of the implementation of specifications attached to the funds transferred to the RLAs (decentralisation) in the framework of the fight against plastic packaging;	**Included** **Included** **Included**
8	**To be deleted in SWOT**	▪ Failure in the functioning of the plastic packaging compliance control bodies (divisional and regional committees) set up by the MINEPDED Circular Letter of 10 April 2014 ▪ Lack of special programmes involving environmental associations on the ground for awareness raising, clean-up, research, and documentation of results on environmental pollution caused by plastics ; ▪ Lack of in-depth research on the impact of plastic pollution, which can support decision making; ▪ Lack of programmes to characterise the predominant types of plastic waste	**Included** **Not included because of field data** **Not included because of field data** **Not included because of field data**
9	**Axes and measures**	Amendments on some formulations	**Included**
		COMMENTS BY THE CREPS	
10	**Review of the legal framework**	The analysis is silent on its strengths, weaknesses/insufficiencies The legal framework is silent on the amendments on plastic waste to the	**included as the legal framework has been analysed through the lens of the SWOT**

		Basel Convention in 2019 and entry into force on 1 January 2021	**analysis** **Included**
11	**General objective**	The general objective of the control strategy is not indicated and therefore it is not clear what the specific objectives refer to	**Included**
12	**Priority axes**	The strategy has no priority axes. It is not clear on which aspect of plastics pollution control to focus (production, consumption, waste management)	**Not included**: Strategic axes well identified in the document following a diagnostic analysis of strengths and weaknesses which resulted in major recommendations to be addressed
13	**Stakeholders**	Not all key stakeholders are involved in the implementation of the strategy	**Recommendation already included.** MINMIDT and MINSANTE are recalled in the third part of the document on the roles of the actors in the implementation of the strategy and in the action plan.
14		The place of plastic packaging producers and importers in the indicated methodology is not visible	**Recommendation already included** The diagnosis carried out showed the weakness of the system to regulate the production and import of plastic packaging as well as a weak application of the clauses of the specifications of these actors to this effect the proposed vision leaned on this category of

			actors through the reinforcement of the monitoring of their activity.
COMMENTS BY THE MINEPDED TEAM/Market Engineer			
15	**Form**	Reframe the structure in parts and not in chapters	**Included**
		No need to present the diagnostic approach but rather limit the presentation of results	**Included**
		In view of the density of chapter 4, it can be combined with the chapter on the state of the art and returned to this chapter as a title	**Included**
		Put all the borders of the table to facilitate understanding and make the correlation between the operational objectives and the implementation measures	**Not included**
16	**Diagnosis**	Draw out the recommendations from the assessment	**Included**
17	**Funding**	Identify the funding mechanism by strategic axis	**Included**
18	**Methodology**	Specify : - the Methodology used for the choice of the vision - Recall the scenario or reasons for choosing this vision - The consensus vision adopted	**Included**
19	**Strategic vision**	MINEPDED proposes "A plastic-free environment by 2029 through coordinated governance at the highest level, the promotion of the circular economy and the reduction of 80% of the manufacture and import of plastic on national territory".	**Included**
20	**Strategic axes**	Observation on axes and some measures	**Included**

21	**Monitoring Evaluation**	Recall Implementation actors and their roles	**Included**
		Remind the institutional coordination mechanism	**Included**
		Highlight the communication mechanism	**Included**
22	**Risk**	Identify the implementation risks	**Included**
		COMMENTS BY Dr VOUNDI Eric (Geographer)	
23	**Form of the document**	Accentuate the capital letters "STRATÉGIE"; "RÉSUMÉ"; "EXÉCUTIF"; etc. As I told you before, this is a spelling rule imposed by the French Academy since 1970	**Included**
		Consider standardizing the font of this table of contents to "Arial". Some headings, mainly category 3, 4 and 5 titles, are in "Calibri".	**Included**
		Do you find the choice of arranging the abbreviations in two columns more digestible for the presentation? In addition, in the left-hand column, the abbreviations are not in bold, but rather their meanings; the opposite is true in the right-hand column. BE CONSISTENT	**Included**
		This indentation of just 2 or 3 millimetres at the beginning of a paragraph is not appropriate. Make a choice, either write without indentation or adopt a normal indentation of 1cm or 1.25cm. Please also adopt a standard line spacing of 6pt or 8pt between paragraphs as is the case in the GLOSSARY section. BOTH OF THESE SUGGESTIONS ARE VALID FOR THE WHOLE DOCUMENT	**Included**
		Provide transition texts between parts and announce figures and tables	**Included**
		Always write the acronym in full length at its first use before calling it as such at	**Included**

		the end of the document.	
		Referencing statistics	**Included**
24	**Methodology**	List the selected regions	**Included**
25	**Implementation of the strategy**	Specify the role of each actor in the strategy	**Included**
		Mr Gilles AKAMBA (Geomatician)	
26	**Strategy**	Elaboration of maps	**Included**
		Implementation of the virtual data collection application	**Included**

Appendix 3: terms of reference for the development of the national plastic pollution strategy

I- BACKGROUND AND RATIONALE

For its economic and social development, the country adopted the 2035 Development Vision in 2009, which aims at making Cameroon "an emerging country, democratic and united in its diversity". To this end, for its second phase of implementation, the National Development Strategy 2020-2030 (NDS30) was drawn up for the structural transformation and inclusive development of the country, which provides for the following on the environmental and nature protection front (i) strengthen actions relating to the sustainable management of natural resources (soil, flora, fauna, water); and (ii) take adequate measures to adapt and mitigate the effects of climate change. In addition, in order to deal with the perceptible consequences of climate change, particularly floods and landslides which affect certain towns and countryside, the Government undertakes to: (i) ensure that climate change concerns are taken into account in sectoral strategies and policies, both in their formulation and implementation; (ii) build the capacities of institutions in charge of climate watch; (iii) operationalise the mechanism for monitoring, preventing and responding to the effects of climate change; (iv) develop and implement a national waste management strategy while promoting corporate social responsibility.

As part of the implementation of the programme to combat pollution, nuisances, harmful and/or dangerous chemical substances throughout the national territory, the Ministry of the Environment, Protection of nature and Sustainable Development (MINEPDED) has put in place a legal arsenal to fight against pollution in general and the proliferation of non-conforming plastic packaging in particular, namely the Joint Order No. 004 MINEPDED/MINCOMMERCE of 24 October 2012 regulating the manufacture, import and marketing of non-biodegradable plastic packaging in Cameroon.

In order to implement the above-mentioned decree, the Minister in charge of the environment issued Circular Letter No. 096/C/CAB/MINEPDED of 10 April 2014 relating to the control of compliance and the repression of violators of the said decree. Thus, large stocks of non-compliant plastic packaging are regularly seized and stored in the premises of the central and decentralised services of MINEPDED.

Cameroon, in its permanent quest for the sustainable management of its environment, is making the necessary efforts to adhere to major international development concerns. Thus, in its reference framework on waste management, it has provided for action plans by type of waste and/or by region, as instruments for the implementation of specific objectives. However, in the future it will not be enough to limit the amount of waste generated and the treatment capacity in appropriate facilities, but also to promote clean technologies.

Responsible waste management contributes to sustainable development, one of the components of which is the "green economy", through the implementation of the best

economic, social and environmental practices, as well as the best available technologies that promote environmental protection while creating jobs.

In the light of the analyses and work already carried out on the problem of waste in our cities, which concentrate the majority of management problems, it is necessary to consider the institutional and regulatory mechanisms for financial incentives and the technical aspect, which it seems important to consolidate in order to have an integrated waste management system that takes into account all the stages of the waste life cycle, most particularly production, collection, transport, treatment and/or disposal.

The issue of plastic waste management is nowadays a major concern at all levels, global, national and local. Over the last two decades, plastic packaging has been increasingly used by people because it is easy to handle and can be used in many ways. However, it should be noted that these plastics present as many disadvantages as advantages for the populations and the environment.

In Cameroon, waste from the use of plastics constitutes about 10% of the 6,000,000 tonnes of municipal waste produced annually, i.e. about 600,000 tonnes per year. This waste is mostly poorly managed due to the non-existence of efficient sorting and collection systems as well as the significant increase in the number of manufacturers and importers of such packaging.

Faced with this situation, a survey was conducted in 2011 by MINEPDED to assess the use of plastics in Cameroon. This survey revealed alarming findings in Cameroon's cities: non-recyclable single-use plastic waste easily flies away and is the cause of fundamental problems of public health, flooding of our towns and cities, reduction of agricultural production, development of disease vectors, and the death of several livestock when animals swallow them.

Given the specificity of the issue to be addressed, MINEPDED is considering the development of a national strategy to combat plastic pollution.

I- **OBJECTIVES**

The overall objective of this activity is to develop a national strategy to combat plastic pollution.

Specifically, it is about:

1) carrying out a situational analysis of the fight against plastic pollution
2) defining the main lines of intervention;
3) identifying the actors and the financing;
4) defining the criteria for prioritising the fight against plastic pollution;
5) defining a monitoring and evaluation framework for the implementation of the strategic plan.

II- EXPECTED OUTPUT

At the end of the mission, a national strategy document for the fight against plastic pollution is expected;

III- METHODOLOGY

For the realisation of this activity, a national consultant will be recruited with the main mission of elaborating the national strategy against plastic pollution. The methodology will be proposed by the consultant in his offer. However, a participatory approach must be adopted in order to take into account all the different stakeholders.

IV- MISSION OF THE CONSULTANT

The consultant is assigned the following tasks

- Conduct a literature review on plastic pollution by presenting the experience of at least 03 countries where the control has worked;
- Identify the stakeholders;
- Collect data from the population and analyse it;
- Make a SWOT analysis of the fight against plastic pollution;
- Propose the implementation period of the strategy based on the SWOT analysis;
- Write the status report and have it validated by the stakeholders;
- Propose, in the light of the analysis of the strategic axes;
- Propose an operational framework for the strategy (prioritisation, actors, funding, implementation timeframe, etc.);
- Write the diagnostic reports and the strategy document;
- Present the reports at the various workshops and meetings;
- Organise 02 meetings (framing and validation of the diagnostic report) and a validation workshop for the national strategy to combat plastic pollution;
- Review the reports and documents with regard to the amendments;
- submit the reports, in English and French, in soft and hard copies.

V- CONSULTANT'S PROFILE

A national expert specialised in National Strategy development issues with at least five (05) years of experience.

Education required:

A Master's degree or equivalent (bac+5) minimum in environmental sciences, chemistry, sociology or related discipline, with proven skills in developing national level strategies for pollution control.

Skills and Qualifications required:

1. Experience in cross-cutting issues including environment, quality control;
2. Good knowledge of plastics and their entire life cycle;
3. At least 5 years of experience in strategy development;

4. Knowledge in pollution control in waste management facilities would be an asset;
5. Knowledge of the national and international legal framework for waste management in general and plastics in particular;
6. A perfect command of French or English language;
7. Ability to communicate with a wide range of partners, government, civil servants, NGOs, etc.;
8. Good communication (written and spoken) and facility in writing and articulating ideas in a clear and concise manner;
9. Ability to work as part of a multidisciplinary team and ability to work under pressure and within deadlines;
10. Good computer skills (Word, Excel, Powerpoint).

VI- DURATION :

The maximum duration of this activity is four (04) months from the date of signature of the contract between the client and the consultant. This period is broken down as follows

- two (02) weeks for the framing and presentation of the detailed work plan as well as the work methodology;
- six (06) weeks for data collection and the preparation of the diagnostic report (situational analysis);
- six (06) weeks for the elaboration of the draft strategy for the fight against plastic pollution.
- two (02) weeks for the consolidation of the final version of the strategy integrating the observations made.

The deadline for the organisation of workshops to validate the documents will be included in the detailed work plan. Minutes will be taken upon receipt of the diagnostic report and the strategy document.

After the final validation of the document, the consultant will produce in both national languages the digital (in Word and PDF format) and physical (10 copies in English and 10 copies in French) versions of the documents developed.

The provisional timetable for the execution of the work will be proposed by the consultant in his tender.

TITLE III: LIST OF UNIT PRICES

No.	TASKS	UNIT	QUANTITY	UNIT PRICE (CFAF)	UNIT PRICE IN LETTERS (CFAF)
1	CONSULTANT FEES	U	3	2,516,667	Two million five hundred and sixteen thousand six

					hundred and sixty seven
2	VALIDATION MEETING OF THE DIAGNOSTIC REPORT AND SCOPING MEETING	FF	1	4,200,000	Four million two hundred thousand
3	STRATEGY DOCUMENT VALIDATION WORKSHOP	FF	1	3,775,000	Three million seven hundred and seventy-five thousand
4	PREPARATION OF THE DIAGNOSTIC REPORT AND THE STRATEGIC DOCUMENT	FF	1	1,246,449	One million two hundred and forty six thousand four hundred and forty nine