GEF-8 REQUEST FOR CEO CHILD ENDORSEMENT/APPROVAL

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General Child Project Information

Child Project Title	
Circular Solutions to Plastic Pollution in Nigeria	
Region	**GEF Project ID**
Nigeria	11193
Country(ies)	**Type of Project**
Nigeria	FSP
GEF Agency(ies)	**GEF Agency Project ID**
UNEP	
Project Executing Entity(s)	**Project Executing Type**
National Environmental Standards and Regulations Enforcement Agency (NESREA) United Nations Development Programme	Government Others
GEF Focal Area (s)	**Submission Date**
Multi Focal Area	6/27/2024
Type of Trust Fund	**Project Duration (Months)**
GET	60
GEF Project Grant: (a)	**Agency Fee(s) Grant: (b)**
5,966,207.00	536,959.00
PPG Amount: (c)	**PPG Agency Fee(s): (d)**
150,000.00	13,500.00
Total GEF Financing: (a+b+c+d)	**Total Co-financing**
6666666	40,983,561.00
Project Sector (CCM Only)	

Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	No Contribution 0	Significant Objective 1	No Contribution 0

Project Summary

Provide a brief summary description of the project, to offer a snapshot of what is being proposed. The summary should include: (i) what is the problem and issues to be addressed? ii) as a child project under a program, explain how the description fits in the broader context of the specific program; (iii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. (max. 250 words, approximately 1/2 page)

The consumption of single-use plastic water sachets in Nigeria has become a major source of plastic pollution, with over 2.5 billion liters consumed annually. Today, there are over 32,000 sachet water producers nationwide. Once consumed, water sachets are often discarded contributing to plastic pollution in the country, leading to clogged sewage systems, leakage in the ocean, harm to biodiversity and widespread diseases, among others. This poses hazards to the environment, biodiversity, and public health. While government efforts to improve pipe-borne water systems are ongoing, alternatives to plastic sachets are urgently needed given Nigerians' high reliance on packaged water.

The overall objective of the project is to reduce plastic sachet consumption while ensuring access to safe drinking water through 1) Strengthening federal and sub-national policies and capacities for accessible and safe drinking water; 2) Fostering public-private partnerships to ensure access to clean drinking water through circular solutions, eco-design and EPR; 3) Piloting reuse and community-owned initiatives to demonstrate economic and environmental benefits; 4) Increasing public awareness and stakeholders engagement and 5) Ensuring communication and coordination throughout the project, especially with the Global Project.

The Project contributes to the delivery of the UNEP PoW in relation to the reduction of land-based sources of pollution. This reflects in positive expected impacts on GEBs including:

- 350,078 MT of avoided residual plastic waste pollution (CI 9.8), resulting in:
    - 54.69 gTEQ POPs to air reduced (CI 10)
    - 1,868,657 metric ton of CO2e reduced (CI 6.7)

Child Project Description Overview

Project Objective

The reduction of single-use plastic water sachets in Nigeria, while ensuring accessible and safe drinking water

Project Components

Component 1: Enabling regulatory and policy environment to develop solutions for accessible drinking water

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
509,761.00	3,501,692.00

Outcome:

1.1 Agreed regulatory frameworks, policies, and guidelines in place to transition towards a circular plastics economy in the water sector.

1.2 National, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed

1.3 Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution

Output:

1.1.1 State of regulations and policies on water packaging assessed, including recommendations to inform the public policy making process by Y1 Q2

1.1.2 A comprehensive public policy framework including minimum 3 draft policies to transition to a circular plastics economy in the water sector developed by Y2 Q3

1.2.1 At least 3 new or updated sub-national plans and strategies developed and adopted incorporating a gender-sensitive and inclusive approach are developed by YR 3 Q1.

1.3.1 Inter-governmental committee established and operational by Y1 Q3

1.3.2 Capacity building program developed and minimum 3 training workshops conducted

Component 2: Public-private investments to ensure access to clean drinking water through circular solutions and eco-design

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
642,143.00	4,411,061.00

Outcome:

2.1 Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment

2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water

2.3 Private investment mobilized for circular solutions to enable eco-design practices by the water packaging sector

Output:

2.1.1 A Public-private partnership (PPP) established and operationalized by YR2 Q2

2.1.2 EPR (Extended Producer Responsibility) capacity building programme established and at least 4 training workshops conducted

2.2.1 Status of fiscal incentives in the water, packaging and entrepreneurship sectors assessed by Y2 Q4

2.2.2 At least 1 fiscal policy adopted and implemented

2.3.1 Private sector investment mechanism established, including 12 roundtable meetings and 3 investments on circular business models.

Component 3: Promoting circular solutions through pilots

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
3,414,260.00	23,453,513.00

Outcome:

3.1 Framework for improved design and sector standards for circular products to provide clean drinking water in place

3.2 Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse)

Output:

3.1.1 At least 2 norms and standards adopted and implemented for water packaging.

3.2.1 Compilation of global best practices on upstream business solutions for water delivered by Y1 Q4

3.2.2 Business support program established for innovative models based on reuse

3.2.3 At least 4 entrepreneurs/companies supported to create/enhance water businesses based on reuse

3.2.4 At least 2 eco-design practices implemented in the water packaging sector.

Component 4: Advocacy and awareness raising

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
706,349.00	4,852,110.00

Outcome:

4.1 Knowledge sharing and learning activities developed to support awareness-raising, upscaling

4.2 A strategy for upscaling lessons learned, achievements, and barriers at the national level

Output:

4.1.1 Communication campaign on sound drinking water practices designed by Y3 implemented by Y5.

4.1.2 Multi-stakeholder roundtable on “less plastic in water” established and at least 4 meetings organized.

4.2.1 Roadmap for circular systems in the water sector adopted by Y5.

Component 5: National and Program-level Coordination, Knowledge Management and Communication

Component Type	Trust Fund
Technical Assistance	GET

GEF Project Financing ($)	Co-financing ($)
265,125.00	1,821,218.00

Outcome:

5.1: Effective National and Global Coordination including active participation and contribution to Global Project meetings and working groups.

5.2 Increased National and Global knowledge and awareness on Circular Solutions to Single Use Plastic Packaging Pollution from the Food and Beverage Sector

Output:

5.1.1: National Level Coordination mechanism established and implemented

5.1.2: Coordination and active participation and contribution to Global Project meetings and working groups.

5.2.1: Communication and Knowledge Management strategy developed and implemented for the project developed and implemented using Global Project and other relevant platforms

5.2.2: Contribution to the Global Project Knowledge Management and Communication established

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
149,610.00	1,027,712.00

Outcome:

Efficient and timely project execution, monitoring and evaluation processes carried out, and corresponding improvement of project execution as appropriate.

Output:

1: Documented monitoring and reporting process throughout the entire project execution life cycle ensuring successful project delivery.

2: Independent evaluations to assess the progress, success, and effectiveness of the project undertaken and recommendations reflected in project implementation.

3: Regular contribution to the Global Project M&E Reporting.

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Enabling regulatory and policy environment to develop solutions for accessible drinking water	509,761.00	3,501,692.00

Component 2: Public-private investments to ensure access to clean drinking water through circular solutions and eco-design	642,143.00	4,411,061.00
Component 3: Promoting circular solutions through pilots	3,414,260.00	23,453,513.00
Component 4: Advocacy and awareness raising	706,349.00	4,852,110.00
Component 5: National and Program-level Coordination, Knowledge Management and Communication	265,125.00	1,821,218.00
M&E	149,610.00	1,027,712.00
Subtotal	**5,687,248.00**	**39,067,306.00**
Project Management Cost	278,959.00	1,916,255.00
Total Project Cost ($)	**5,966,207.00**	**40,983,561.00**

Please provide Justification

CHILD PROJECT OUTLINE

A. PROJECT RATIONALE

Describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Since this is a child project under a program, please include an explanation of how the context fits within the specific program agenda. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

1. The evolving challenge of the water sector in Nigeria and the Child Project strategy

In less than a century, **plastic pollution has become one of the most pressing environmental issues**, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them. Plastic pollution is ubiquitous impacting the health and functioning of communities, wildlife, and habitats,[1][1] with adverse consequences for climate and the economies across the world.[2][2]

Globally, the annual production of plastics has doubled, rising from 234 million tonnes (Mt) in 2000 to 460 Mt in 2019. Plastic waste has more than doubled, from 156 Mt in 2000 to 353 Mt in 2019. Only 9% of plastic waste was recycled, while 19% was incinerated and almost 50% went to sanitary landfills. The remaining 22% was disposed of in uncontrolled dumpsites, burned in open pits, or leaked into the environment.[3][3] Under a Baseline as Usual scenario, plastics use is estimated to continue to grow, leading to a 50% increase in leakage

of (macro)plastics to the environment by 2040 (30 million tonnes per year, of which 9 Mt would enter aquatic environments).[4][4]

Up to 99% of today's plastics are made from polymers derived from - often subsidized - non-renewable hydrocarbons, mostly oil and natural gas,[5][5] following a **linear take-make-waste economic model**. The durability, flexibility, and convenience of plastics have led to a throw-away culture: today, approximately 36% of all plastics produced are used in packaging, including single-use Food and Beverage containers, with a lifespan of a few minutes to hours. Approximately 85% of this packaging ends up in landfills or as unregulated waste, persisting in the environment for hundreds of years.[6][6]

In the Food and Beverage (F&B) sector, single-use plastics (SUPs) represent a cost-effective marketing solution that protects goods and extends shelf life. Among food and beverages, **drinking water** is essential for humans. Water is at the core of sustainable development and is critical for socioeconomic development, energy and food production, healthy ecosystems, and for human survival itself. There are still around 2 billion people worldwide without access to safely managed drinking water services. Among them, 771 million people cannot access even basic drinking water services.[7][7]

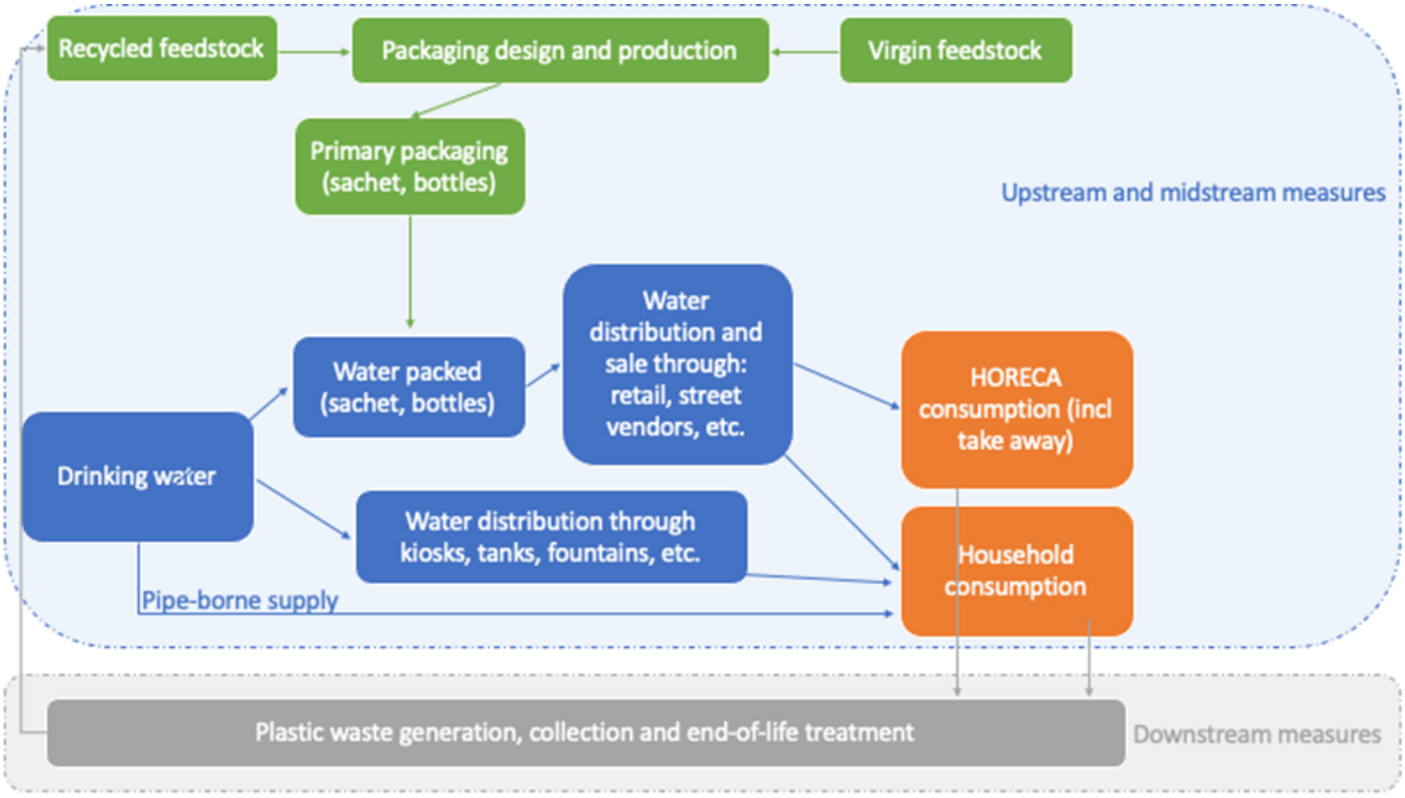
Water is also a rights issue. As the global population grows, there is an increasing need to balance all of the competing commercial demands on water resources, so that communities have enough for their needs. In particular, women and girls must have access to clean, private sanitation facilities to manage menstruation and maternity with dignity and safety.[8][8] In the context of low-income economies, the population largely relies on packed water, including for household use.

As a consequence, litter-type inventories across major aquatic environments have found water packaging, particularly bottles (and caps) and sachets, in the highest positions. This poses not only environmental problems but also safety and health risks.

There is increasing recognition of the need to take **a systemic, transformational approach** to the plastic pollution crisis, as evidenced by the international legally binding instrument on plastic pollution currently in negotiation. This will require a substantial shift in investment away from the use of virgin plastic and to upstream and midstream measures. **Upstream measures** are designed to help eliminate unnecessary, avoidable, and problematic plastic packaging, shift to sustainable alternatives, eliminate hazardous additives in the polymers to increase recyclability/reusability, and use recycled plastics as feedstocks for plastic production; **Midstream measures** are designed to support innovation to extend the life of products where plastics are necessary, by creating reusable or recyclable packaging & by creating circular systems (reuse, refill, repair, resell, repair, repurpose); as well as reducing unnecessary consumption of plastics by consumers and commercial users, especially for single-use plastic packaging; the **midstream** include the design, production, trade, and consumption of packaging across the F&B value chain. So far, most commitments and investments have focused on downstream solutions such as collection and recycling, and a lot more effort is needed on upstream solutions such as reduction, substitution, reuse, and redesign.[9][9]

The Nigeria Child Project of the GEF Integrated Programme Circular Plastics narrows down the focus of food and beverage packaging to water sachets to overcome cross-cutting issues in the country, including waste, water, health and employment. The project focuses on upstream and midstream measures with the ultimate objective of eliminating plastic leakage into the environment, while ensuring access to safe water. Before introducing the project approach, it is important to consider the water-related packaging product-to-waste cycle, which entails the value chain of plastic (and other materials) as well as the water distribution. It is worth recalling that packaging is not a product as such, but an element integrated within a product (e.g. water). The figure below depicts the main elements of this value chain as well as where the project measures will focus.

Figure 1. Food and Beverage Value Chain



Amongst many issues confronting the Nigerian public, the shortage in drinking water supply is critical. It has grossly fallen behind the demand of the over 217 million population. Expanding and rehabilitating existing water supply networks as well as developing new sources of drinking water are known to be increasingly capital-intensive, hence, posing a great challenge to the concerned government institutions who now struggle to address the acute water shortages across the 36 States of the federation owing to their meager budgets which must also cater for other public needs. Visible and ongoing shortages in the public water supply have forced many Nigerian families to turn to unsuitable water sources that are most times not fit for human consumption, leading to numerous environmental and health challenges. The scarcity of freshwater is also known to have induced conflicts among Farmers and Pastoralists as both humans and livestock compete for

access to drinking water in Northern Nigeria.[10][10] Over 60,000 Nigerians have been killed since 2001, [11][11] and $13.7 billion lost annually[12][12] due to these incessant clashes between herders and farmers.

The embrace of adaptive measures to alleviate stress caused by lack of access to drinking water can be seen in the private sector interventions and investment in the multi-million dollar water packaging industry which though has formed a major water supply source and has cushioned the effects of water shortages in the country is also associated with a lot of environmental consequences including plastic pollution which end up blocking drainage channels and leading to flooding issues across the nation. Packaged drinking water produced by these business entities in Nigeria comes in different forms, including bottled water, sachet water, and dispenser water. This intervention has become an important element of water security in the country. There are three most common plastic materials used in packaging water namely, polycarbonate, high-density polyethylene, and PET (Polyethylene Terephthalate), with each material having its quality issues and impact. [13][13]

The low-income earners who constituted the majority of the nation's population are known to patronize more of the packaged water sold in polythene sachets, popularly referred to as 'pure water'. Although easy to serve and the price is affordable, complaints abound about its purity and other health concerns. With a 22% non-compliance level of the sachet water producers to the national drinking water standard, a gradual nationwide ban was proposed by the national regulator for this packaged water but the market still witnesses tremendous growth, especially among the poor.[14][14] Non-availability of appropriate regulations and enforcement framework to control related impacts, lack of institutional capacity and coordination mechanism, and lack of insufficient access to eco-design programmes are obstacles that prevail. Others include inadequate knowledge and awareness of the negative effects of water sachets and the benefits of reuse models. The lack of effective incentives to promote green entrepreneurship is also seen as a critical factor. Multiple taxation from the three tiers of government can also pose bottlenecks to these private players.

If no measures are taken to provide sustainable solutions, the growing demand for the production of sachet water will continue, hence exacerbating associated health, social, and environmental challenges. Repairs and expansion of the water reticulation system to meet basic water needs and minimize demand for packaged water is seen as very important steps to be taken, coupled with exploring other reusable water supply options and material recyclability.

Although government-owned public water utilities (GPWU) schemes used in the past could serve more people, the growing population coupled with poor coverage and maintenance of these infrastructures has caused a lot of limitations prompting private sector participation. Therefore, there is a need to optimize process variables to motivate these private players to own Private water corporations (PWC) that promote sustainable solutions for drinking water supply as well as a business model, including metering systems that will support profitability for investors and availability as well as affordability for the public.[15][15]

2. The Nigerian context

Nigeria is a country with an estimated population of about 217 million in 2022.[16]16 It remains the most populous nation in Africa and accounts for about half of West Africa's population.[17]17 According to the United Nations Population Fund Country Programme (UNFPA), Nigeria's population is expected to reach ***400 million*** by 2050, making it the third most populous country globally.[18]18 Although the country scored 35.1% in the 2022 Gini index, it has the largest economy in Africa. [19]19

Nigeria's economic growth momentum gradually increased after the exit from recession in Q4 2020. Its expansion by 0.5% in the first quarter of 2021 was attributed to increased activities in the non-oil sector, which accounted for 91% of total real Gross Domestic Product (GDP). [20]20

Nigeria's GDP grew by 3.46% (year-on-year) in real terms in the first quarter (Figure 2)[21]21, with the **Food-Beverage-and-Tobacco (Manufacturing) as the Seventh most impactful activities contributing up to 4.12 % of the total GDP (Figure 3).**

Figure 2. Real GDP Growth

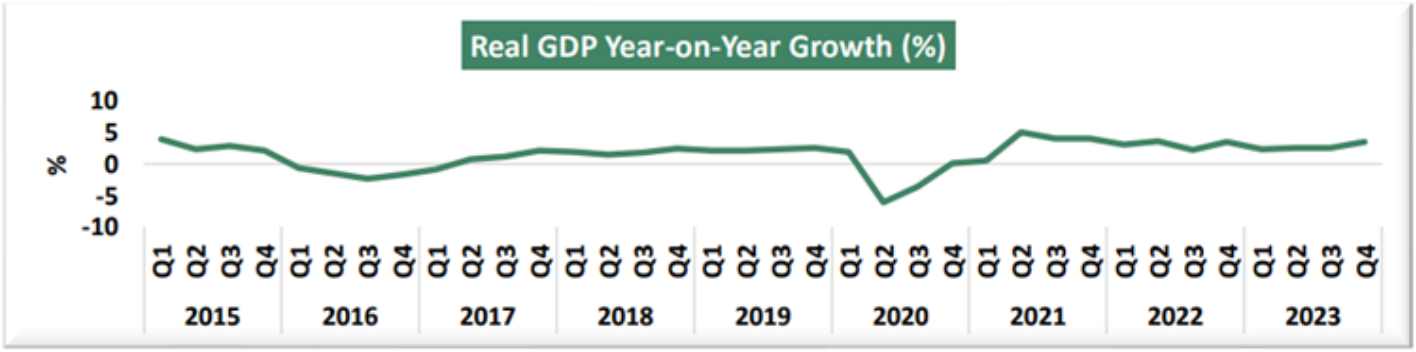
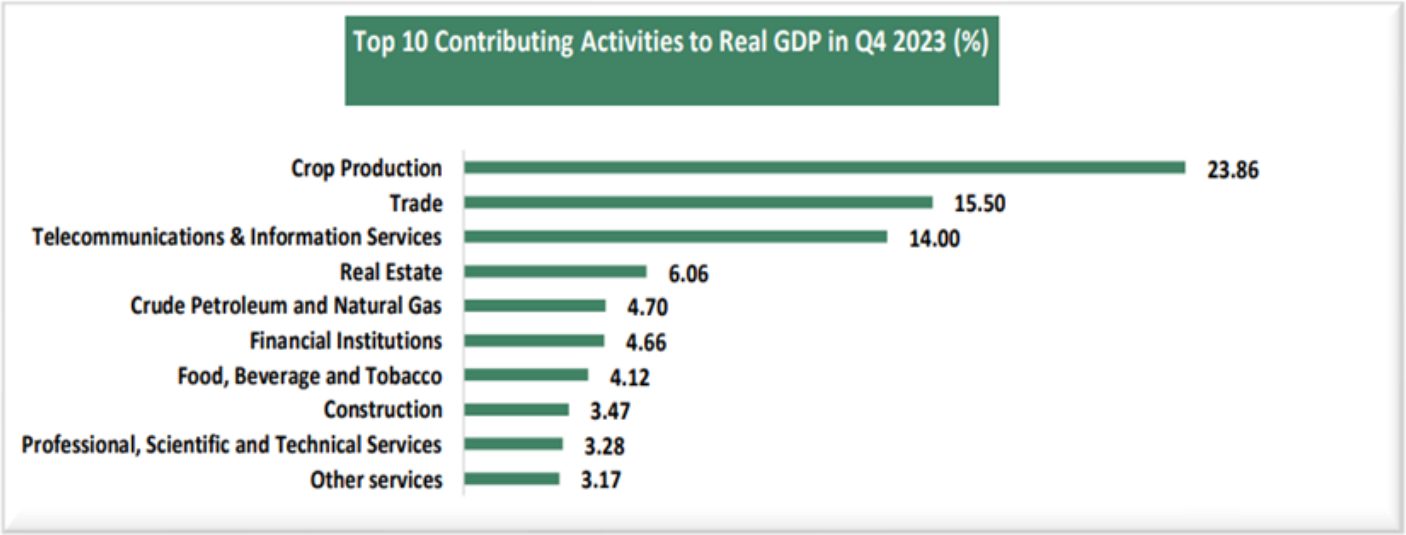


Figure 3. Top 10 Contributing Activities to Real GDP in Q4 2023 (Source: National Bureau of Statistics (NBS), 2024)



Being the seventh most productive industry, the **Food-Beverage-and-Tobacco (Manufacturing) sector** is known to contribute significantly to the huge environmental challenges suffered across the country, especially due to its drive for an increase in extraction of raw materials and production of important supplies, including plastic and rubber for packaging of assorted products in the industries. According to Echiegu and Liberty (2015), the food processing industry is a major generator of waste in Nigeria.[22][22] Prominent players in the sector still utilize non-biodegradable polyethylene terephthalate bottles for packaging making the nation's transition to sustainable plastic production more challenging.[23][23] By implication, the drive for a productive Nigerian economy has led to diverse environmental issues arising not only from the activities in the manufacturing industry but also across other sectors of the Nigerian economy.

While the Nigerian population is in a position to gain from the economic boom in the nation, on the other hand, they suffer from deprivations caused by erratic raw material exploitation and other associated environmental impacts resulting from activities accompanying actions taken towards growing the economy. Also, the quick economic expansion in the country has not translated into any reduction in poverty or in the supply of essential social services like water, sanitation, and hygiene (WASH), which hasn't kept up with the rapidly increasing population. [24][24] As in the case of most limited resources across the nation, there is an alarming state of safe water deprivation among the residents of Nigeria, especially those in rural communities.[25][25] With the 7th lowest human capital index in the world and poverty rate estimated to reach 37% in 2023, many households in the country cannot afford to sink individual boreholes but rely mainly on minor provisions of drinking water made available by the government and international partner organizations.[26][26]

Research showed that the Water, Sanitation and Hygiene (WASH) policy environment in Nigeria is characterized by: a) an excessive number of short-lived policies without corresponding action; b) the excessive reliance on international policy instruments and aid; c) many agencies without any effective oversight; d) insufficient consideration of the local siuations; and e) subpar implementation practices.[27] The

Nigeria National Water Sanitation Policy recognized that a high percentage of people (5–20%) die as a result of poor sanitation, from cholera to typhoid, para-typhoid, guinea worm, bilharzia, and other infections.[28]27

In relation to the plastic crisis, the National Plastic Waste Management Policy (2020) lays the foundations for a circular economy when it comes to plastics, to ensure that plastic product designs and production lines fully comply with the 5Rs (Reduce, Reuse, Repair, Recycle, and Recovery), to curb plastic pollution and the associated adverse impact on lives and the Nigerian environment. [29] In line with the bid to eradicate global plastic pollution through the Global Plastic Action Partnership (GPAP) an initiative of the World Economic Forum, the Nigerian National Plastic Action Partnership (NPAP) as a member nation is creating a National Plastic Action Roadmap towards meeting the objective of the initiative. It has developed a baseline plastic analysis that provides a current position evaluation of plastic waste generation and management trends in Nigeria. [30] This is essential and forms the basis upon which a Roadmap for plastic waste control and management is currently being developed. The Baseline of plastic waste is presented in Table 1.

Table 1. Baseline information on plastic waste in Nigeria

Baseline information on plastic waste in Nigeria	
Base Year	2020
Population	212.3 Million inhabitants
Tonnage of Plastic	13.26 Million Metric Tonnes
Per capita generation in urban area	86.68 kg/capita/year
Per capita generation in urban area	35.14 kg/capita/year
Amount imported	22,000 t
Percentage Composition	Bottle (20%), Rigid Mono Materials (32%), Multi-layer and multi-materials (5%), Flexible mono-materials (26%) and Households (17%)
Total Collection rate	24% (3,234,201 tonne)
Collection rate at urban areas	32% of all plastic waste generated was collected in Urban.
Collection rate at Rural areas	4% of all plastic waste generated was collected in Rural
Formal Collection rate	1,700,000 t
Informal Collection rate	1,548,000 t
Tonnage recycled	1,917,000 t (59%)
Tonnage not sorted	1,956,000 t
Tonnage openly burnt	6,905,000 t
Tonnage causing terrestrial pollution	3,219,000 t
Tonnage leaked into aquatic environment	1,058,000 t
Recovery from tonnage reaching the dumpsite	495,000 t (27%)

(Source: Nigeria NPAP, 2024)

2.1 Water demand and loopholes in the supply of drinking water

The Nigerian National Development Plan (NDP) 2021-2025 recognized the nation's water resource potential to be 440 Billon Cubic Meter (BCM), with estimated total surface and groundwater resources around 250 BCM, or 1,800 m3/capita/year of total renewable water resources.[31]28 The report states that this volume is

significantly more than the 1,000 m3/capita/year that is usually used to identify water scarcity. However, Nigeria is classified as an Economic Water Scarce Country, meaning that despite its enormous potential, more money must be invested and management must be strengthened in order to meet water demand.

According to the World Bank Report, in 2019 about 60 million Nigerians were without access to clean drinking water.[32]29 This was due to several issues which included low investment, insufficient enabling regulatory environments, a lack of necessary human resources, and inadequate infrastructure. The report also recognised that while 167 million people lacked access to even the most basic handwashing stations, 80 million people did not have access to better sanitary facilities. Similarly, the WASH NORM report for 2021 states that 23% of Nigerians do not have access to basic water supply services; 179 million people, or the great majority, (87%), lack access to services that provide safe drinking water, with just 10% of people having access to services for hygiene, sanitation, and water. It noted that no state in Nigeria has 100% coverage and that less than half of the population in seven states lacks access to safe drinking water.[33]30

This intense shortage and lack of access to drinking water resources as well as gross loopholes in the supply of drinking water is alarming and has constituted major concerns by communities across the nation. There have been occasions of deaths and loss of properties as a result of conflicts between many farming communities and herders whom among other things seem to be in competition for access to the limited water resources from available streams, rivers, and lakes which served as source of drinking water to many people and their livestock. [34]31 Between 2001 and 2018, about 60,000 people were killed and more than 300,000 displaced across four Nigerian state due to herdsmen-farmers-clashes. [35]32 This has also led to loss of properties worth billions of dollars. According to the Premium Times, one of the national dailies, Nigeria loses 14 billion dollars annually from the conflict[36]33

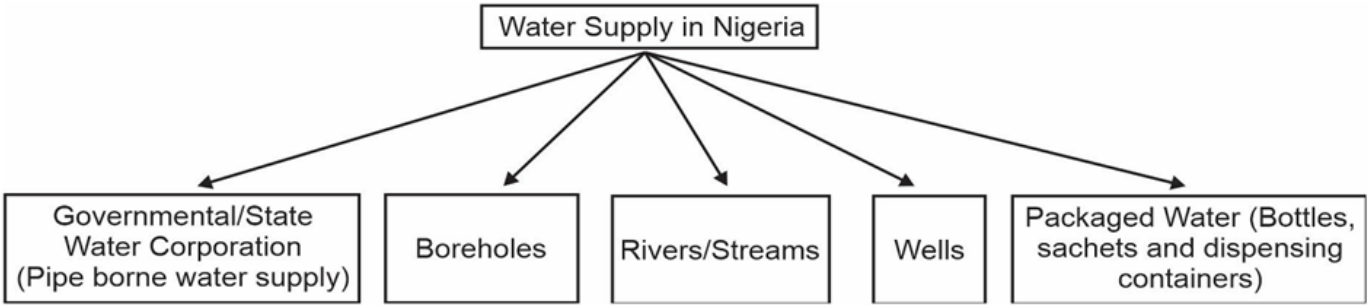
Considering the growing population and corresponding increase in demand for water and sanitation, the pipe-borne water which is statutorily provided by the State Water Corporation and ought to be the primary source of water supply has not been coping for many years, as a result of minimal coverage and most times not functional due to lack of funds and inadequate maintenance. Similarly, alternative water supply sources like wells, boreholes, streams, and rivers have shrunk over the years either due to impact of over-exploitation or climate change. [37]34

According to Balogun and Redina (2019)[38]35, while State governments are mostly responsible for sanitation services across the country, especially in urban areas, water supply services are carried out by the government under three levels (see Figure 4): the federal government, state government, and local government, as stated below:

- **Federal government:** The Nigeria Federal Ministry of Water Resources is responsible for large water resources development projects and water allocation between states of the federation.

- **State government:** Responsibility for portable supply is entrusted to State Water Agencies (SWAs) or state water departments in the 36 Nigerian states
- **Local governments:** The country's Local Government Authorities (LGAs), of which there are 774, are responsible for the provision of rural water supplies and sanitation facilities in their areas although only a few have the resources and skills to handle the problem. Only few LGAs have rural water supply divisions.

Figure 4. Major water supply sources in Nigeria (Modified from: Balogun and Redina, 2019)



2.2 The emergence and boom of Packaged Water businesses as options to the nation's water needs

As a result of poor coverage of the water supply system, load shedding, frequent damages, and outage of public water supply, which has led to the sporadic scarcity of potable water across the nation, most Nigerians resort to other options. The high-income earning Nigerians depend mainly on large refillable dispensing containers, premium plastic bottled water, and personal boreholes. The middle-income earners use mid-range brands of bottled water and sachet water; while the low-income communities settle for small plastic sachet water, wells, and community boreholes.

The bottled water sales in Nigeria have a record of 2.5 billion litres yearly consumption, with a per capita consumption growing from under 3 litres in 2011 to over 12 litres in 2020, making the business become one of the fastest-growing and profitable markets for fast-moving consumer goods (FMCG) in Nigeria.[39][36] Its industry revenue has increased dramatically, with an expected ₦7 billion in 2011 rising to nearly ₦200 billion in 2020, indicating a Compound Annual Growth Rate (CAGR) of 40%. It is anticipated that the market will continue to grow, with some estimates putting its value at as high as ₦500 billion by 2025. However, the water sachets are more prominent since they are inexpensive, lightweight, and accessible to a good number of Nigerians.[40][37]

The sachet water became popular in Nigeria in the 1990s after 134 different sachet water package companies registered with NAFDAC (National Agency for Food and Drugs Administration and Control).[41][38] These private firms took advantage of the opportunity created by the inability of the public water corporations to provide adequate drinkable water supply to the populace. Sachet water business became profitable and prominent in the country, especially as a result of the nation's population increase and a corresponding demand for affordable potable water by mainly the low- and mid-income earners who constituted a major part of the population. This situation is worsened by the lack of commitment and funding for the rehabilitation of

existing pipe-borne water systems or building new ones to match the overwhelming demand for potable water. Hence, a profitable market environment is created for more private companies who continue to join the pure water business across the nation. Today, there are over 32,000 sachet water producers nationwide (with Lagos state alone reported to account for over 1500 factories),[42]39 with over 90% of them registered as members of the Association of Table Water Producers of Nigeria (ATWAP)[43]40. It is estimated that they supply water to 65% of the population in Nigeria.

The existing businesses providing drinking water in Nigeria can be categorized into four[44]41, Including:

- **Premium/Value Brands:** Multinational and big Local companies produce bottled water brand that caters for the high and medium class consumers. These brands are not available everywhere but can be procured at hotels, restaurants and big supermarkets. Some of these brands are: Nestle Pure Life, Lasena Artesian Mineral Water, Gossy Water, Aquafina, Swan Natural Spring, Aqualis Natural Mineral Water. The premium category is packed in plastic bottles.
- **Medium Range Brands:** major beverage and water producing companies produce this range of water that is targeted at the middle class and consumers in urban areas. These brands are affordable some are even available at road sides. Example of this category of water are: Ello Table Water, VeePee Water, Aqualis Natural Mineral Water, Cascade Table Water, Aquadana Table Water, Eva Water, Lacasera Table Water, Bigi Table Water, Cway Water, Fayrouz Water, and so on. These brands are also packaged in plastic bottles.
- **Economy Brands:** this category of water is packed in plastic bottles and produced by small-scale companies and entrepreneurs whose brands are not popular. They are sold at cheaper rates compared to the 2 categories highlighted above and are targeted at the lower income consumers who desire clean water but cannot afford the popular brands. Examples are: Premier Table Water, Shy Table Water, Aquacy Premium Water and Aqua bash Table water
- **Sachet Water:** these are water packed in sachet quite a large number of these brands are available in the market. While some of the brands are quite clean and good for human consumption, some of the brands in this category of water have been reported to be unclean and unsafe for drinking as various unregistered enterprises and individuals pack untreated and unfiltered water for human consumption. They cater to the poor, labourers, market women, and rural areas of the country. They are cheap and readily available.

With the increasing number of operators across the value chain, different associations have been formed along the lines of the various activities, with the following three prominent ones identified:

- **Association of Table Water Producers (ATWAP):** This Association has membership from both bottled water and sachet water producers. It was formed in the late 90s to protect the interest of the water producers and present a common front to statutory government agencies in Nigeria.
- **Association of pure water producers:** This Association has its membership solely from those who are into the sachet water production. The association has been very conspicuous recently complaining about the high cost of water production and justifying the inevitability of price increases.
- **Hygienic Water Producers Association (HWAPAN):** This Association is like the ATWAP and has its membership drawn from both bottled water and sachet water producers. Most of these members use to belong to the ATWAP.

According to ATWAP[45][42], the sachet water comes in two different sizes 60 CL and 50 CL which respectively constituted 80% and 20% in circulation nationwide. It holds that the weight of an empty 60 CL water sachet is about 13 grams, while 50 CL is about 11.5 grams. The packing bag that houses 20 sachets weighs about 20 grams. Therefore, 1 bag of empty 60 CL sachets of pure water is approximately 280 grams. While 4.6 bags of empty 60 CL will give you 1 kg of plastic nylon. 4 bags of empty 50 CL weighs 1 kg of nylon.

Although sachet water was once thought to be a fad by most local governments and international development organizations, it has swiftly taken hold as the majority of households in many urban areas use it as their primary supply of drinking water, and it is still spreading throughout the region and the world.[46][43] Sachet water is widely consumed throughout the nation, for several reasons:

1. Accessibility: Even in isolated locations where clean drinking water may be hard to get or of low quality, sachet water is easily accessible. Since it is reasonably priced, a broad spectrum of socioeconomic groups can afford it.

2. Affordability: In comparison to bottled water, sachets are cheaper and thus lower income communities opt for it. Poverty exacerbates the reliance on sachet water which is affordable to the low-income communities who suffer limiting access to clean water sources.

3. Convenience: Sachet water offers a portable and easy-to-carry supply of drinking water. Its compact design makes it convenient to transport, whether for one's own use or to give to loved ones.

4. Trust in quality: Many customers have faith that sachet water is safe to ingest, even in the face of doubts regarding its purity. While there are respectable companies who usually follow quality guidelines and do frequent testing to guarantee their product is safe to drink, there have also been cases of poor-quality sachet water; hence, the need for the Nigeria's water quality regulatory body to act appropriately to protect the public's health. [47][44]

5. Lack of trust in tap water: Because of problems including contamination, inadequate infrastructure, and inconsistent supply, there is a general lack of confidence in the quality of tap water in many places. Compared to tap water, sachet water is thought to be safer.

6. Hygiene and sanitation: Compared to open containers or water kept in tanks, sachet water is packaged in sealed plastic pouches, lowering the possibility of contamination. Because aquatic illnesses can spread swiftly in crowded cities like Lagos, Kano, Port Harcourt and others, proper hygiene and sanitation are especially important.

7. Cultural Acceptance: As a practical and reasonably priced way to stay hydrated, sachet water has been deeply embedded in Nigerian culture. Over time, its ubiquity has increased, resulting in broad acceptance and consumption.

8. Informality. Sachet water is widely available and consumed thanks in large part to the informal sector's distribution and consumption of the product. This aspect requires attention for several reasons:

    a. Distribution: Sachet water is often distributed through informal channels such as roadside vendors, small shops, and open-air markets. These informal retailers play a crucial role in making sachet

water easily accessible to consumers, particularly in areas where formal retail infrastructure is limited.

b. Job Creation: The production and distribution of sachet water generate employment opportunities within the informal sector. From packaging and distribution to sales and vending, many individuals rely on the sachet water industry for livelihoods, especially in urban areas where unemployment rates may be high.

c. Flexibility and Adaptability: The informal sector is known for its flexibility and adaptability to local market conditions. Sachet water vendors, for example, can quickly respond to changes in demand and adjust their pricing and distribution strategies accordingly. This flexibility helps ensure that sachet water remains affordable and accessible to a wide range of consumers.

d. Accessibility in Remote Areas: In rural and underserved areas where formal retail infrastructure may be lacking, the informal sector often fills the gap in distributing essential goods, including sachet water. Informal vendors travel to remote villages and settlements, providing residents with access to clean drinking water.

e. Innovation: The informal sector fosters innovation in the sachet water industry, leading to the development of new packaging formats, marketing strategies, and distribution models. For example, some informal vendors may offer home delivery services or bundle sachet water with other products to attract customers.

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2.3 The Environmental Consequences of Sachet Water

Although sachet water has made it easier for Nigerians to obtain drinking water, there is a big environmental price for this comfort. Evidence of high patronage of sachet water is seen as these sachets litter the streets, cover waterfronts and block drainage channels of cities, towns, and villages across the nation, thereby leading to environmental challenges including flooding. Since sachets are lightweight, the wind and water can easily carry them, which leads to widespread littering.

The end-of-life management of water plastic packaging, and particularly water sachets, is a significant challenge, particularly regarding collection, dumping, and recycling. When not properly managed, these plastic materials constitute not only environmental pollution but also risks to human health and safety. During the rainy season, the build-up of water sachet waste clogs drainage systems and raises the danger of flooding. Additionally, stagnant water trapped in discarded plastic packaging can serve as breeding grounds for mosquitoes. Furthermore, the environmental impact is exacerbated by the lengthy material decomposition, eventually originating microplastics and associated impacts. Some key points regarding the collection, recycling and dumping of plastic packaging materials in Nigeria include:

1. i. Government interventions: The Nigerian government has launched programmes and policies targeted at enhancing waste collection and recycling because it has recognised the need to address the management of plastic waste. The National Environmental Standards and Regulations Enforcement Agency (NESREA), for instance, is in charge of managing waste and controlling pollution, which includes recycling-related initiatives. However, these initiatives' efficacy is hampered by difficulties with implementation, a lack of funds, and problems with enforcement

2. 2. Limited formal collection infrastructure: Setting up official garbage collection infrastructure in Nigeria is difficult, particularly in rural and urban areas. Regular waste collection services are lacking in many localities, which contributes to a high rate of littering and inappropriate disposal of plastic packaging like water sachets.

3. 3. Informal collection: Waste pickers and scavengers handle a large portion of the unofficial gathering of plastic packaging, which includes sachet water pouches. These people frequently gather recyclables, including sachet water pouches from dumpsites, streets, and water bodies in order to sell them to recycling facilities or middlemen.

4. 4. Community-led projects: Certain communities have groups and projects that deal with the problem of managing plastic waste. Community clean-up drives, waste segregation efforts, and awareness campaigns to encourage appropriate waste disposal practices including the collecting of plastic packaging may all be part of these projects.

5. 5. Recycling challenges: Nigeria has a limited infrastructure for recycling, despite the fact that some plastic packaging, such as sachet water pouches, is collected for recycling. Insufficient capacity, technology, and investment hinder the efficient processing and recycling of plastic materials in numerous recycling facilities. Consequently, a large portion of the gathered plastic packaging gets disposed of incorrectly.

6. 6.Informal recycling sector: In Nigeria, small-scale recycling businesses convert plastic trash—including sachet water pouches into secondary raw materials for use in a variety of sectors. However, improper safety precautions and environmental laws are frequently absent from informal recycling operations, endangering the health and welfare of workers as well as the environment. This sector persists despite obstacles.

3. The project baseline and expected outcomes

3.1 Public policies and institutions in relation to water and plastic waste

With over 217 million people living in the country, and a large portion of them lacking access to drinkable water, the government has made steps in the past to provide the necessary framework to drive a sustainable water sector. Nigeria's Federal constitution being the core to this framework accords authority over water supply services to the States, while the national government is meant to focus on policy development, coordination, and monitoring with the States mandated to provide water supply and sanitation services.

The National Water Policy (NWP) was approved in September 2016. The policy requires the government to collectively appropriate funds for water supply and sanitation programs of an amount equivalent to not less than 15 percent of total annual appropriations. The document also defined institutional structures for water to include: (i) Water Sanitation Division within the Department of Water Supply in the Ministry of Water Resources; (ii) State Steering Committees on Water and Sanitation, and (iii) Local Government Steering Committees on Water Sanitation.

The right to the use and control of all surface and groundwater and of any water course affecting more than one State as described in the relevant schedule of the Water Resources Act, together with the bed and banks thereof, is vested in the Government of the Federation for the purpose.[48]45 Table 2 shows Primary Water Resources Management Statutes in Nigeria and their functions.

Table 2. Primary Water Resources Management Statutes in Nigeria and their functions

Statute	Year Enacted	Description with respect to water resources development
The Water Resources Act	1976, 1993	The act established the Federal Ministry of Water Resources (FMWR) and gave the ministry the responsibility of overseeing water resources management in the country, providing water for various uses, collection of basic hydrological data, and to coordinate the activities of all other water resources agencies.
Minerals and Mining Act	1990	The act empowers the Mining Cadastre Office (MCO) to issue water use permits, among other functions.
The River Basin Development Authority (RBDA) Act	1990	The act established 12 RBDAs and empowered them to develop and manage surface and groundwater resources within their jurisdiction to promote agricultural development and provide domestic water supply.
Nigeria Hydrological Services Agency (NIHSA) Act	2010	The act enables NIHSA to collect and store accurate and reliable hydrological and hydrogeological data on the status and trends of water resources development in the country.
The Nigerian Meteorological Agency (NIMET) Act	2003	The act established NIMET as an organ to advise the government on meteorological issues, issue weather and climate forecasts, collect, collate and disseminate meteorological data, and encourage meteorological research to support socio-economic development in the country.
State Water Edicts	Diffuse	Each state including the Federal Capital Territory (FCT) has policies uniquely tailored to meet the water needs of their respective localities. These policies are implemented without prejudice to the Water Resources Act.
The National Inland Waterways Authority (NIWA) Act Cap N47	2004	The act empowers NIWA to supervise facilities and indigenous technical and managerial human resources needed to meet the challenges of modern inland waterways transportation.

In addition to Nigeria's laws, rules, and plans about food and water management, there are those on packaging materials, describing the materials that must be used, labelling specifications, and hygiene requirements. These regulations are meant to ensure that packaged products don't endanger customers' health and that they adhere to certain quality requirements, e.g. the National Agency for Food and Drug Administration and Control's (NAFDAC) *Guidelines for Inspection and Requirements for Packaged Water Facility* which specifies standards for packaged water factories, including rules that specify acceptable water sources (including minimum depth of borehole, distance from septic tanks and other pollution source, etc.), acceptable water reservoir specification, the type of packaging material, factory building specification, etc. [49] However, the guideline lacked in the area of ensuring circularity of packaging materials. It did not address issues on recyclability of such material, including ensuring eco-design to promote minimization or reuse of packaging materials.

The Standard Organization of Nigeria (SON) also developed a national Standard for Drinking Water Quality covering all drinking water. However, it did not provide guidance for mineral water and packaged water, neither did it provide any basis for the control of impacts resulting from water packaging materials, rather it centred mainly on other standard that applies to:

- Drinking water supplied by State Water Agencies,
- Drinking water supplied by community-managed drinking water systems (mostly boreholes)
- Drinking water supplied by water vendors and water tankers
- Drinking water used in public or privately owned establishments

- Drinking water used in food processing by manufacturers

- Drinking water from privately owned drinking water systems and use solely for the family residence

Identified legal instruments that are considered to provide the basis to address issues of environmental impacts that may result from the use of plastic both as packaging materials for water and as integral of other products are shown in Box 1.

Box 1: Existing policies, laws, and regulations related to plastic lifecycle management in Nigeria[50]

Policy Documents and Plans

- National Policy on Environment 1999 (Sub section 6.1 of Section 6.0). Revised 2016
- National Policy of Environmental Sanitation, 2005
- National Policy on Chemical Management, 2010
- National Policy on Municipal & Agricultural Waste Management, 2012 (Draft)
- Draft National Healthcare Waste Policy, 2013
- National Policy on Solid Waste Management, 2018
- National Action Plan (NAP) on Marine Plastic Litter 2023
- The National Development Plan (NDP) 2021-2025
- Ban of Single-use plastics within departments and agencies of the Federal Ministry of Environment

Legislation

- National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulations S.1.9 of 1991
- The National Environmental Protection Management of Solid and Hazardous Waste Management Regulations S.I.15 of 1991
- Environmental Impact Assessment Act of 1992
- Harmful waste (Special Criminal Provisions) Act CAP HI LFN 2004
- National Agency for Food and Drug Administration and Control Act No.15 of 1993 Cap NI LFN 2004
- Import Prohibition Act CAP 13 LFN 2004
- National Environmental Standards and Regulations Enforcement Agency (NESREA) Act No. 25 of 2007
- National Environmental (Sanitation and Wastes Control) Regulation S.I.28 of2009 Section 13(1-5);18(1) a,b
- National Environmental (Food, Beverages and Tobacco Sector) Regulations, S. I. No. 33 of 2009 Section 6 (3);
- National Environmental (Chemicals, Pharmaceuticals, Soap and Detergent Manufacturing Industries) Regulations, S. I. No. 36 of 2009 Section 6 (3);
- National Environmental (Domestic and Industrial Plastic, Rubber and Foam Sector) Regulations, S. I. No. 17 of 2011 Section 6(2), 7(3);
- National Environmental (Construction Sector) Regulations, S. I. No. 19 of 2011 Section 6(1,2);
- National Environmental (Electrical/Electronic Sector) Regulations, S. I. No 23 of 2011 Section 8(4,5).
- National Environmental (Base Metal, iron and Steel Manufacturing/Recycling Industries Sector) Regulations, 2011, 11(1a)

Even with laws in place, Nigerian regulators may find it difficult to enforce them because of issues like a lack of funding, corruption, and stakeholder ignorance. Furthermore, it can be challenging to adequately monitor and enforce standards in in sectors where informality has an important share. Hence, the need for awareness creation and development of suitable enforcement strategies are crucial.

Concerning enforcement agencies, on the one hand, NAFDAC enforces safety and best practices for packaged water and mineral water through the use of Nigeria Industrial Standard -NIS 345:2008 and NIS 306:2008 respectively, though there was no consideration for recycled content in water packaging. On the other hand, enforcing proper disposal and management of packaging materials in an environmentally acceptable manner is carried out by NESREA. As a way to achieve this goal, the agency operates a policy on Extended Producer Responsibility (EPR) which has suffered from weak enforcement details, since subscription by companies are voluntary for a long time.

Also, with the support of some development partners, the Nigerian government through the Federal Ministry of the Environment and other agencies like NESREA, NAFDAC, and SON have developed guidelines, waste management plans, and strategies to reduce pollution in the country. An example is the Nigeria national action plan on marine plastic litter which was prepared with support from IMO/FAO-Norway Glolitter partnerships project in 2023. [51]46

In Nigeria, several **government institutions** play crucial roles in addressing the problems associated with water sachet packaging. These institutions have varying capacities and responsibilities, and their coordination is essential for effective management of the issue. Here's an elaboration on their capacities and coordination efforts:

S/N	AGENCY	CAPACITY	COORDINATION
1	The Federal Ministry of Water Resources (FMWR)	formulating policies, regulating the water sector and providing technical and financial support to State Governments in the planning, implementation and monitoring of water supply projects	The FMWR discharges its duties through a few institutions such as the River Basin Development Authorities (henceforth, RBDAs), the Nigerian Integrated Water Resources Management Commission, the Nigerian Hydrological Services Agency, and the National Water Research Institute. It works in partnership with State Water Corporations, as well as other international and local partners to promote access to quality water.
2	National Water Resources Institute	National Water Resources Institute shall certify operators in a water treatment plant.	National Water Resources Institute shall conduct training and re-training of drinking water utilities personnel on the development and implementation of the Water Safety Plan as well as water treatment processes that will ensure safe water delivery.
3.	National Agency for Food and Drug Administration and Control (NAFDAC)	The production, import, export, distribution, marketing, sale, and use of packaged water in Nigeria are all subject to NAFDAC regulations. It has the power to impose guidelines and rules on the materials used in the packaging of water sachets.	NAFDAC works in conjunction with other governmental organisations, including SON and NESREA, to guarantee adherence to environmental legislation and packaging standards. Additionally, it coordinates enforcement efforts with state-level agencies.
4.	Standards Organization of Nigeria (SON)	Packaging materials, such as those used in water sachets, are standardised by SON and published afterward. To make sure packaging materials fulfil required quality and safety standards, it tests and certifies them.	SON coordinates with NAFDAC and other relevant agencies to harmonize standards and regulations concerning water sachet packaging.
5.	National Environmental Standards and Regulations Enforcement Agency (NESREA)	Enforcement of environmental laws and rules, particularly those pertaining to pollution control and waste management, falls under the purview of NESREA. Issues like inappropriate disposal of water sachet packaging fall within its purview.	To coordinate enforcement actions and guarantee adherence to environmental standards, NESREA collaborates closely with NAFDAC, SON, and other environmental authorities at the federal and state levels.
6.	Ministry of Environment (Federal and States)	Environmental policy guidance and oversight, including pollution from water sachet packing, are provided by the Ministry of Environment at both the	The Ministry of Environment works with relevant governmental bodies, non-governmental organisations, and other stakeholders to create and carry out policies,

S/N	AGENCY	CAPACITY	COORDINATION
		federal and state levels. It facilitates interagency coordination in the face of environmental concerns and supports regulatory agencies' operations.	programmes, and initiatives. In order to encourage ethical consumption and waste management techniques, it also undertakes public awareness programmes.
7.	Federal/State Ministry of Health	Federal and State Departments of Water Safety shall promote the Nigerian Standard for Drinking Water Quality (NSDWQ), and inform consumers on the health risk linked to poor water quality consumption	The Ministry of Health shall support the drinking water quality management function by collecting information on the incidence of waterborne diseases (for example, diarrhoea) and the use of this information to facilitate interventions.
8.	Consumer Protection Council (CPC)	Receive complaints and or observed lapses and use appropriate Institutional Framework to ensure adequate correction.	• Seek redress and compensation for aggrieved consumer or community as provided in the CPC Act No 66 (1992) • Undertake awareness campaigns to enlighten consumers on their rights to safe and wholesome drinking water as generally provided for in the CPC Act. No 66 (1992)
9.	Agencies in charge of the environment (state level)	The State Environmental Protection Agency (e.g. the Lagos State Environmental Protection Agency - LASEPA is responsible for the enforcement of environmental laws and regulations, particularly those pertaining to pollution control. Some States also have or Solid Waste Management Agencies (e.g. the Lagos Waste Management Authority – LAWMA) who is statutorily responsible for solid waste (including plastic waste) in the state.	These state agencies work in conjunction with national government authorities such as NAFDAC, SON, and NESREA. Additionally, they collaborate closely with other state-level agencies to ensure environmental standards are followed and waste management initiatives are coordinated.

Numerous **lessons can be learnt** from the current policy situation in the country, including:

- Lack of specific policies that are focused on proper handling of sachet water gave room for unguarded production: Policies addressing the impacts of plastic waste are seen to focus majorly on plastic bottle wastes. No significant progress has been made to ensure proper collection and circularity of sachet water waste across the nation, hence the environmental impact caused by this type of waste will continue to increase as will be exacerbated by the growing population and ever-increasing need for drinking water.
- No phase out on sachet water nor innovative technological solution is sought: The fact that there is no attempt to phase out the use of pure water sachet has not given room to think through to explore other sound options that could serve the same purpose but with minimal impact on the environment.
- Increase the access to pipe-borne water: The major cause of mass production, supply, and use of water sachet is the lack of pipe-borne (good quality) water supply in most communities. The recent economic crunch in Nigeria is making it difficult for people to afford the sachet water which used to be cheap in the past. Hence provision of clean water supply to homes will minimize the consumption of sachet water

Thus, the following **key barriers** remain:

- Lack of appropriate strategies/regulations/enforcement of plastic waste management and water supply
- Lack of institutional capacity and coordination mechanisms

The project will tackle these barriers to achieve the following **outcomes**:

- Agreed regulatory frameworks, policies, and guidelines, including fiscal policies and incentives, in place to transition towards a circular plastics economy in the water sector

- * At least 3 national, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed
- * Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution in 6 Nigerian States

Worthy of note are other related **sub-national policies and initiatives** released to minimise the negative impacts of plastic waste (Box 2)

Box 1: Existing plastic policies and initiatives at the sub-national level

- The Lagos Plastic Waste Policy and Guideline (still being finalized)
- Ban on Single used plastics at Subnational: Lagos State Jan 2024 & Abia State – Jan 2024
- Lagos Recycling Initiative as part of its Climate Action Plan (CAP), which aims to divert waste from landfills
- Lagos (plastic) buyback initiatives
- State-level plastic waste recovery and recycling projects powered by both public and private participants

At the sub-national, the same Ministries Departments and Agencies (MDAs) responsible for bulk solid waste management are known to also oversee plastic and other resource recycling activities across the 36 states and the federal capital territory (FCT). They operate either within the State Ministry of Environment, the State Environmental Protection Agencies, or as the State Waste Management Agency, with activities complementing those across the 774 Local Government Authorities (LGA) in Nigeria. [52]47

Considering activities at the sub-national level, Lagos State has demonstrated a higher level of awareness of the impact caused by plastics by initiating a state-level plastic waste management policy to proffer integrated solutions. In January 2024, the state banned the use of single-use plastics. However, if there's no well-crafted implementation plan that articulates strategies and a timeline towards total eradication of this family of waste it may be difficult to achieve the objective. To handle plastic waste, Lagos State has put in place programmes for waste collection and recycling. Plastic materials are gathered, sorted, and recycled as part of these programmes to lessen their influence on the environment. These activities are executed on different implementation model, including the State (government) own recycling initiative; projects executed under the Public Private Partnership (PPP) Model; Private sector direct investment, and those executed by means of government collaboration with non-governmental organizations (NGOs) and other local and foreign communities.

Box 3: Lagos Plastic Waste Collection and Management System

- Zoning of Recycling monitoring: The State has been demarcated into three different recycling hubs/zones: West, Central, and Eastern zones. Operators are assigned to each of these zones which are managed.

- Plastic Bank: The State government as well as licensed recyclers are known to deploy plastic banks in public places: market areas, airports, and schools to collect plastic waste. Once these banks which are made of wire mesh are filled, they are collected and moved to pre-processing centres owned mainly by the assigned private operator.
- Pakam App: The Pakam initiative is an online service initiated by the Lagos Waste Management Authority (LAWMA) to promote source segregation of plastics and other valuable products. It enables tenements to request pickup online. This initiative comes with rewards/incentives for those who subscribe for it.
- Formal Collection and treatment by registered Operators: Close to 500 aggregators and recyclers are known to operate in the Lagos recycling space. They pick up directly from the source or operate drop-off centres. Under this category, the state has one mega Material Recovery Facility (MRF) built through a PPP model. There are also different sizes of aggregation centres where plastic waste pre-treatments or recycling are carried out.
- Informal sectors: Waste pickers collect plastics mainly from all operational and closed dumpsites, though some of them are seen picking plastics from bins and on the streets in the hinterlands.

In Lagos, local government agencies, associations, and non-governmental organisations are also known to frequently plan clean-up events that focus on beaches, water bodies, and other locations impacted by plastic pollution, such as water sachets. In order to remove litter and spread awareness of the value of waste management, these programmes bring together volunteers, community organisations, and governmental bodies.

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3.2 Public-private investments, fiscal incentives, and existing businesses providing drinking water and their packaging practices.

The Nigerian government in the past has made several efforts to promote water schemes through the institution of some fiscal policies. It recognized the Public Private Partnerships (PPPs) model as crucial to mobilize new sources of long-term financing for infrastructure investment, and considers it necessary to provide fiscal incentives to encourage private sector investments in infrastructure (e.g. granting pioneer status and duty exemptions, especially during construction). [53]48

The moves by the government in the area of fiscal policy are sometimes facilitated through the support of some developmental partners. For example, through the Nigeria Sustainable Urban and Rural Water Supply, Sanitation, and Hygiene (SURWASH) Program, the World Bank Group has supported the Government of Nigeria by implementing activities aimed at enacting the necessary policy reforms and strengthening the institutional capacity needed for efficient and long-lasting service delivery. One of the World Bank initiatives was the National Urban Water Sector Reform Program (NUWSRP). It's an effort aimed at achieving several goals, including improved access to high-quality piped water networks in metropolitan areas across the country, infrastructure improvement, service reliability and performance enhancement, sector reform, and water utility sustainability and commercial viability. [54]49 Once achieved, increasing access to piped water network will definitely reduce the need for consumption of packaged water, hence also minimizing pollution associated with such products.

Another example is the Sustainable Use of Natural Resources and Energy Finance (SUNREF) initiative created by the Agence Française de Développement (AFD) and implemented in Nigeria by Access Bank and United Bank for Africa (UBA), with technical assistance (TA) provided by the Manufacturers Association of

Nigeria, which facilitates domestic commercial bank lending to renewable energy and energy efficiency companies and projects. The program may provide a template for stimulating access to capital for Small and Medium Enterprises (SMEs) and other actors in the plastic value chain.[55][50]

In 2020, the International Finance Corporation (IFC) mentioned that it had given Engee PET Manufacturing Company Nigeria Limited a $39 million loan. This money which is comprised of $24 million senior "A" loan from the IFC and a $15 million subordinated loan from the Private Sector Blend Facility was meant for the company to construct a new facility that encourages plastic recycling in Nigeria also. [56][51] At the stage of recycling, waste nylon polythene is sorted, washed, dried, ground, and fed into the recycling plant, to convert into very useful products such as shopping bags, waste disposal bags, wrapper nylons, and laundry bags. There are also cases of entrepreneurs who produce school bags, book covers, shower caps and other items from recycled pure water sachet. Sometimes the major producers of packed water contribute towards building the recycling industry.

Overall, there is much to do in relation to fiscal policies and access to funding in the field of access to water through refill models.

As part of their respective corporate social responsibility, some of the water packaging companies provide amenities and support for their immediate communities or other areas of interest. An example is Nestle and Coca-Cola which provide clean portable water and sanitation to their host communities annually. Some of these companies also collaborate with the government on World Environmental Day, World Habitat Day, and other sanitation-related dates to create a healthier a better environment for the people. Some of these companies belong to the Food and Beverage Recycling Association (FBRA), a producer responsibility organisation (PRO) through which they execute their extended producer responsibility.

The National Environmental Standards and Regulations Enforcement Agency (NESREA) is responsible for enforcing all environmental laws, guidelines, policies, standards and regulations in Nigeria, as well as enforcing compliance with provisions of international agreements, protocols, conventions, and treaties on the environment to which Nigeria is a signatory. [57][52] It also came up with the EPR Guidelines. EPR programme is a framework of action for a collaborative and partnership approach between the Government, Business, and the larger society toward achieving a zero-waste society in the nearest future. This EPR Guideline is anchored on the Constitution of the Federal Republic of Nigeria 1999 (as amended) and the other extant national laws and regulations, [58][53] with a nationwide bottle deposit requirement, a 5% deposit refund schemes for beverage containers [59][54] NESREA has registered several operators in the EPR programme, including producers, Producer Responsibility Organizations (PROs), recyclers and collectors.[60][55]

The overall objective of the EPR programme is to ensure a decrease in the total environmental impact of a product including its packaging. This is to be achieved by making the Producers of the product responsible for the entire lifecycle of the product, and in particular, the take-back, recycling and final disposal of the product

and its packaging. The primary responsibility of EPR lies with the producer, who makes designs and marketing decisions. Producers/manufacturers are mandated to join a unified organized body and pay a licensing fee based on the type and amount of plastic bottles and sachets waste introduced into the market because of their product sales activities.

Despite introducing and adopting the EPR guidelines in 2014, NESREA has not been able to make significant progress in ensuring producers of plastic products commit to the course. This is mainly because subscription to the EPR scheme has been voluntary since there are no penalties applied to defaulters, hence there are no basis for strict enforcement by NESREA. This probably explains why as at 2023, only 29 companies (mainly multinationals) have registered out of more than 1000 plastic producers across the nation.

The EPR scheme was designed to be domesticated at the State level in partnership with NESREA, the Federal Ministry of Environment, and the manufacturers associations, to ensure compliance. However, the scheme has not been fully implemented in any state of Nigeria, including Lagos State which is supposed to be the trailblazer in this regard because the majority of these producers have their headquarters or factories in Lagos coupled with the fact that Lagos is the main market for their products. In addition, it is designed in a way that producers would pay a flat-rate for their operations, without considering the amounts and types of packaging put on the market, hence without incentives for reduce or favouring reuse options. The state is to approve Producer Responsibility Organizations (PRO) to coordinate the producers and the funds contributed for the end-life plan. A relevant PRO is FBRA, founded in 2013 and made up of companies with a common interest in the environment. Some of the members are Guinness, Seven up Bottling Company, Nigerian Breweries, Nestle and Coca Cola. However, FBRA has not been able to achieve much because of the low compliance and of lack of enforcement.

The status of EPR after over a decade shows that just like many other government frameworks or plans the EPR is not properly enforced. The fact that the guidelines are not enforced across all plastics companies is a major reason that hampers action to abate plastic waste, both upstream and downstream. However, recent inititiatives such as the GEF-7 UNEP project “Circular Economy Approaches for the Electronics Sector in Nigeria” (GEF ID 10141) focused on developing a model of EPR for electronic waste in Nigeria. This project offers lessons learnt that will be used extensively within this project.

Policy without an accompanied legislation may not be successfully implemented, especially at the sub-national level. This is the case in the plastic waste management in Nigeria. For instance, the Federal Ministry of Environment had in 2020 developed two national policies, one on solid waste management and the other on Plastic waste management. However, there have not been applicable regulations to accompany these two policies. A regulation sets a clear standard of the policy. To address this gap, NESREA has recently evolved a draft regulation (National evaluation of plastic waste regulation). This has been passed to the Ministry of Justice to be gazetted into becoming a law. Until this takes effect, it becomes difficult to enforce all best practices within the policy.

This is the case with some governmental initiatives which end up not making much impact after their formulation in the country. Most times this is a result of not budgeting for continuity, not having dedicated offices or officials that are primarily accountable for such action, and change in government which most times comes with a shift of interest by the new government.

In addition, enforcement requires huge funding and manpower to drive necessary monitoring activities happening along different production lines across the nation. NESREA and other key agencies like NAFDAC and the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) do not have the capacity to sustainably carry out their role to carry out enforcement to ensure compliance by water packaging companies.

Thus, the following **barriers** remain in relation to fiscal policies and public-private investments:

- Deficiencies and loopholes in the implementation of EPR.
- Lack of effective fiscal incentives to promote circular businesses in water supply
- Insufficient private funding mobilisation to invest in circular businesses and in effective waste management systems

The proposed project will tackle these barriers to achieve the following **outcomes**:

- Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment
- Fiscal policies and incentives developed to support circular solutions for clean drinking water
- Private investment mobilized for circular solutions to enable eco-design practices by the water packaging sector

3.3 Pilot actions towards a sustainable drinking water delivery system

Sustainable, environmentally responsible delivery of water relates to various factors, including sound packaging. As it has been detailed, the vast majority relate to single-use plastic sachets and bottles, a port of which come from the informal economy. The Nigerian administration intends to improve the quality of the packaging put on the market, including through mandatory recycled content. However, to date there are not standards and norms that would promote more circular packaging materials and formats, and create a level playing field to enable industrial uptake towards eco-design practices.

Over the years, several efforts have been made towards providing access to drinking water for millions of Nigerians. These efforts which are most times initiated by either the national or subnational governments always received support from some developmental partners.

The Word Bank is one of the major contributors towards improving WASH facilities across Nigeria. The Bank's report revealed that it has completed seven water projects in the last 25 years; three of them are still in progress. [61]56 The projects are located in Kaduna, Ogun, Enugu, Lagos, Cross Rivers, and the Federal Capital Territory (FCT). According to the report, the World Bank and International Development Association (IDA) have invested a total of approximately US$1.4 billion. It recognized that the First Urban Water Reform Project for the states of Kaduna, Ogun, and Enugu to be funded by US$345 million. The initiative intends to create state water policy, encourage interaction with the business sector, and renovate 13 municipalities' current water infrastructure. The report also stated that $200 million second Urban Water Reform Project was provided by the Bank for the restoration of water treatment facilities and distribution systems in Lagos and three additional metropolitan centers in Cross River State, as well as the expansion of a piped network in Calabar.

Also, the Federal Capital Territory (FCT) Water Board is receiving assistance under the Privatization Project from the US$25 million IDA credit for network upgrading. It is anticipated that the project will enhance the availability of water to around 50,000 households. Further details on the identified project are presented in the section on the Current landscape of investments.

According to the World Bank, the first Urban Water Project has received 80% disbursement, and there are noticeable improvements in piped networks, water delivery, the restoration of deteriorating equipment, and the involvement of the private sector in production and revenue cycle management in the country. Also, the public has been enlightened through well-structured communication techniques to be more aware of the fact that, although being 'God's gift,' water production and supply are very expensive for government agencies.

Apart from the World Bank, the Nigerian Water Sector initiatives have benefited from funding provided by the Agence Française de Développement (AFD). The AFD supported projects that provide access to drinking water across Nigeria. Its intervention as co-financed by the World Bank, in Lagos and Cross River states, was completed in 2018. It supported urban water supply in other States of the federation with a living portfolio that amounts to USD 266 million offered to the Federal Ministry of Finance and implemented by the various State Water Authorities. Further details are provided in the section on the Current landscape of investments.

African Development Bank approved $124.2 million loan for water sector reforms in Akure to improve access to safe drinking water and sanitation. As at December 13 2019, the Bank's active portfolio in Nigeria comprised 61 operations, of which 54 are national and seven are regional. The total commitment to these projects is $4.8 billion and includes water and sanitation projects worth $606.0 million. [62]57

In addition to interventions received from the World Bank, the AFD, and AfDB, supports to improve access to quality drinking water were also received from organizations as highlighted in the Box below, with further details provided in the section on Current landscape of investments.

African Development Fund: UA274 million intervention fund was issued by ADF. This was targeted at implementing the Zaria Water Supply Expansion and Sanitation Project. The Project aimed to contribute to the Federal Government of Nigeria's efforts to increase access to water supply and sanitation. [63]58

Nigerian Agip Exploration (NAE): The company has collaborated with the FAO (Food and Agriculture Organization of the United Nations) to contribute to humanitarian efforts to alleviate the pains of thousands of internally displaced people (IDPs) and host communities affected by the Lake Chad crisis in North Eastern Nigeria, as it promoted access to clean, safe water in the country by building wells powered by photovoltaic systems. In this way it has funded the drilling of 22 water wells for domestic use and field irrigation, reaching about 67,000 beneficiaries. [64]59 It commissioned similar water system to improve access to water in Chibok, Biu, Damboa, Gwoza, and many other communities affected by the insurrection in Northern Nigeria, as well as building the first solar-powered well in the Waru community which benefited around 4000 people in the area.

GlobalGiving: This is a nonprofit organization that connects many organizations with donors and companies to support projects that Provide Access to Water in Nigeria. This project would provide access to safe clean drinking water in rural communities in Northern Nigeria. [65]60

Water Action Hub: This is an NGO that is engaged in water facilities mapping. It built a platform known as The target 6.1 mapping which has critically assessed the components of a functioning water system within communities across three states in Nigeria, leading to the development of a simple, but comprehensive end-to-end cycle coordination and management system that are color-coded. It recorded 272 water facilities with Green status serving 156,299 beneficiaries, representing 16.2% of people in the mapped areas. The platform helps to coordinate efforts of development partners and concerned government Agencies, as it guides decision-making and ensures collaborative efforts in the water sector. [66]61

WaterAid Nigeria: This is an NGOs with consistent programmes focused on enhancing WASH facilities across the nation. It has Constructed solar-powered, motorized borehole, to be provided in his community in Enugu State, January 2022. Also trained women as Local Area Mechanics, learning to repair water pumps during a workshop organized in Lagos State by WaterAid, with funding from PepsiCo Foundation, May 2023. Provided boreholes as part of the Strengthening Water, Sanitation and Hygiene Delivery Systems (SWADS) project in Guyaba, Kirfi LGA, Bauchi State, 2019.

Sisters of St. Joseph of Orange: The Sisters of St. Joseph of Orange are a congregation of Catholic women who share a common foundation and mission with thousands of Sisters in St. Joseph congregations throughout the world. The organization provided a grant to EnvironFocus for the Safe Drinking Water Project (SDWP). The project provided and installed 10 Lifestraw Max units in 10 Nigerian hospitals in the Niger Delta region. One Lifestraw Max is able to serve up to 400 people per day, so the provisions of 10 Lifestraw Max will serve up to 4000 people per day in the different hospitals. Each Lifestraw Max provided up to 180,000 liters of filtered water before the filter cartridge needs to be changed. The filtered water will be free of viruses, bacteria, parasites, and microplastics. The Lifestraw Max includes an advanced carbon filter that reduces lead, chlorine, and other chemical contaminants [67]62

United States Agency for International Development (USAID): The is an Effective Water, Sanitation, and Hygiene Services in Nigeria (E-WASH) project. Under the four-year, $60.4 million E-WASH project, USAID will assist Abia, Delta, Imo, Niger, Sokoto, and Taraba states to improve the health and hygiene of their populations by improving the delivery of water and sanitation services through stronger, better-performing state water agencies. [68]63

USAID: Signed MOU With Lagos State to Improve Management of Water and Sanitation Services in 2021. The project targeted at improving infrastructure and accountability, strengthening regulatory oversight of the Lagos State Water Regulatory Commission, and strengthening the governance, financial and technical capabilities of Lagos water utilities and private sector water vendors [69]64

In addition to this kind of interventions, business support organizations (BSO) can play a key role in promoting green entrepreneurship in the water sector, as well as providing technical assistance to existing businesses. For that to happen, BSO should have strong expertise on water business models and packaging practices, which it is still not the case in the country. In addition to the organizations listed above, there are national structures that may play that role, such as the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN).

By establishing the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), the government provided an avenue to create an enabling environment that will continue to initiate and articulate

support in the area of policy ideas, capacity building, links to funding opportunities, etc., to drive growth and sustainable operations of small and medium enterprises (SME) in the country.

As an agency, SMEDAN has registered hundreds of Micro Small and Medium Enterprises (MSMEs) that cuts across different sectors, including in the areas of promoting circular economy, including plastic recycling. Many water packaging companies as well as plastic recycling companies have benefited from the activities of SMEDAN. The Agency has built a plastic recycling plant in the Federal Capital Territory, Abuja. The plant converts water sachets waste and other plastics into pellets which are sold to major plastic recyclers. SMEDAN also got some development centers which it intends to be converted into common facility centers which will serve as supporting hub where many SMEs can operate from. [70]65

Prioritising critical infrastructure and human capital development, the Federal Government through the Central Bank of Nigeria (CBN) has increased allocation to SMEDAN to N19.79 billion in 2024 from N5.84 billion in the previous budget, as a way of boosting the business environment. It sees 2024 as a pivotal year that will be shaped by government fiscal policy decisions, majorly, from its proposed budget and the recommendations of the tax reform committee. [71]66

Lessons learnt from the foregoing projects include:

- Though huge investments have been made over the years, less than 10% of lives of Nigerians have been improved considering the population size of the country. According to World Bank report, this impact seems like a drop in the ocean, as increasing coverage to 80 percent in Nigeria would require over US$10 billion annually.
- Existing pilots centered mainly on expanding reach of piped water and through installation of new lines or repair of existing pipelines. There is need to explore other decentralized innovative alternatives that may also be cost effective, including construction of water kiosks, water fountains, etc. This can be boosted through strong partnerships with business support organizations, and considering implemented good practices.
- There is a need to create a level playing field in terms of packaging formats to guarantee water safety and boost eco-design practices.
- Many projects driven by both the national and subnational governments on the basis of providing social benefits to the populations only lasts for some years and most times suffer from the limited budgets assigned to concerned implementing agencies for operation and maintenance. Hence, to develop a sustainable structure that will continue to provide drinking water for future generations, there is need to provide an enabling environment to promote private sector participation, through PPP and other suitable partnership models.

Some of the remaining **key barriers** include:

- Lack of suitable standards for sound water packaging
- Insufficient incentives to attract investment in circular businesses, including through the participation of public authorities
- Lack of knowledge on the impacts and benefits of circular business models
- Insufficient access/availability to packaging eco-design programs

The project will tackle these barriers to achieve the following **outcomes**:

- Framework for improved design and sector standards for circular products to provide clean drinking water in place

- Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse)

3.4 Advocacy and awareness raising

Globally, plastic waste management advocacy and awareness have been an area of interest in recent time. Efforts are made by both governments and non-governmental entities across the globe to increase people's understanding of the impact of plastic waste pollution on the environment and the need to embrace better and more environmentally friendly options, as well as innovative solutions for proper management of plastic waste instead of disposal at landfills and dumpsites.

In Nigeria, campaigns and awareness creation on the harmful effect of plastic pollution on the ecosystem are continuously carried out through the use of social media, NGO activities and some educational programs, though on a small scale. For instance, in the Southeast Nigeria, 81% of social media users attested to being exposed to campaigns on single-use plastic pollution through the use of social media.[72]67 Similarly, the Enviro News, a newspaper publication attested to social media being an effective medium through which many Nigerians broadcasted the effects of littered plastic bags and bottles on the floors of various enjoyment spots during the Yuletide season in Lagos State which is located in the South Western part of the country. Though social media might have proven to be an effective medium for advocacy and awareness raising, strategic use of this platform is yet to be maximized by concerned authorities.

A report by the Nigeria Economic Summit Group recognized that Consumers are unlikely to recycle plastic garbage or choose sustainable alternatives perhaps because they are uninformed of the hazards caused by plastics or not aware of their role in mitigating impacts of plastic pollution to biodiversity and ocean wildlife, contributions to global climate change, and health risks to communities.[73]68 The report recognized awareness creation as one of the impact categories for environmental protection as it will increase consumers' mindfulness of the negative socioeconomic and environmental effects of plastic pollution in the state, thereby increasing the amount of household plastic waste that is separated and collected, as well as boosting incentives for recycling plastic waste.

Advocacy and awareness raising by some key stakeholders are visible, as can be seen in the activities of some NGOs,[74]69 some industries through internal arrangements or through partnership with other organizations, including FBRA which is one of the PROs for implementation of EPR.[75]70 Campaigns are also embarked on as part of activities of some key government institutions like the Lagos State Environmental Protection Agency (LASEPA).[76]71 Other innovative tools that have been identified to reach out to many Nigerians on plastic pollution education for sustainable development in the country include poetry, music, and educational blogs. [77]72

Despite the conversations and campaigns on plastic pollution and the plan to achieve a plastic free environment in Nigeria, the sachet water sector continues to grow, especially with the current economic situation where it is still the cheapest and most affordable source of clean drinking water. Hence the production of sachet water has continued to grow and by implication the waste plastic sachet has also grown. This situation makes it look as if no efforts are made in the area of advocacy and awareness campaign because the impacts of these campaigns seem not noticeable as plastic sachet waste still litter environment, clog drainages and are all over water bodies.

Information available to consumers of packaged water is minimal in the Nigeria's society. On every bottle of water, there are inscriptions and images indicating that the bottles are recyclable and should be disposed properly. While only few people pay attention to these instructions, many water sachets do not even have such information.

On occasions such as Zero Waste Week and World Environment Day, NGOs, Government's Ministry of environment and Sanitation Agencies always emphasize the need for producers of beverage products to including information on their products containers. However, for drinking water, such attention is paid to plastic bottles, little or nothing said about water sachet, including disregard for improper disposal and contribution of sachet water to environmental degradation. Hence, the level of awareness being currently created for waste packages of water is still inadequate, especially considering where, when and how theses information's are being disseminated. Those that needed to be aware and change their attitude of dumping plastic indiscriminately are not on the internet but in markets, parks, garages, and other public places and can only be reached through extensive public awareness programme that will reach every nook and cranny of the country.

More detailed and widespread public awareness programmes such as school advocacy, documentary, mobile/static billboards, community town hall meetings, and other enlightening programmes are required for the anticipated attitudinal change. These programmes would benefit from thorough knowledge on people's behaviour and perception concerning water and packaging, in order to target specific aspects and not just general messages on negative effects of plastic pollution. That would allow boosting better environmental behaviour. However, only little or no such efforts are made at subnational level, except in metropolitan cities like Lagos and Abuja where concerned government agencies are a bit more active, and provides some level of education and awareness on water plastic packages, the need for a change in purchasing habits and the dangers of waste plastics if not properly conveyed to the public in native languages may not yield much results, especially in the rural areas.

At the 50th Environment Day celebration in Nigeria, the United Nations' spokesperson called for urgent action on plastic pollution in Nigeria, noting that the country's efforts to achieve the 2030 Agenda and its SDGs is possible with the collaborative efforts from all stakeholders – through a whole-of-society approach which entails partnerships between Government, private sector, Civil Society Organizations (CSOs), and international organizations to enhance policy implementation, promote a circular economy, and reduce plastic use. [78]73

Without the government's active participation, it is hard to make the shift from the age of single-use plastics to sustainable alternatives. However, this must be done in partnership with other stakeholders if progress is to be attained. Such collaborations could mean pulling resources together to make significant changes. It provides opportunities for funding, technical assistance, capacity building on best practices and others. For instance, the

Federal Ministry of Environment's collaborative partnership with Global Plastic Action Partnership (GPAP) to establish Nigeria National Plastic Action Partnership (NPAP) is a germane step towards maximizing plastic waste potential, to create a strong value chain while increasing the spike in waste recovery. This partnership has led to benefits, including the development of a baseline for plastic waste across the nation. Another unique partnership is seen between Lagos State Government partner and UNIDO on plastic pollution imitative with the aim to curb pollution and encourage circular economy.

Where the disposition to a whole-of-society approach is lacking, leading to non-inclusivity in policy formulation or programme implementation, there seems to be failures. In Malawi, the ban on plastics failed thrice mainly due to lack of robust stakeholder consultation and national advocacy.[79]74 Hence the need for Nigeria to take a clue considering the recent ban on single use plastics by the Federal Ministry of Environment, the Lagos State Government and Abia State Government. This action can become very productive if done in collaboration with other stakeholder in a transparent manner while also providing affordable alternatives, especially in the case of plastic sachet for water, since patronage of this product is driven by socioeconomic factors.

There are numerous parties involved in the plastic lifecycle, each with distinct functions, duties, and accountability. Collaboration between these stakeholders is key to achieving great success in the national drive for circular economy and eradication of single-used plastics.

As highlighted above, stakeholders' involvement is vital to spreading awareness on the negative impact of plastic waste. Media, including television, radio, Internet and newsprint/publications, have a lot to do in spreading the required awareness while the private sector involvement through corporate social responsibility, and government initiative as well as creation of enabling environment and promoting the necessary laws, rules and regulation; are all necessary to eliminate the barriers and achieve success.

The menace of plastic pollution can be a thing of the past if all stakeholders are ready and willing to play their roles individually and collectively. The past individual efforts are not giving the desired result because there is no synergy among stakeholders. In addition, sustainability plan for these projects is very poor hence, they rarely outlive the events or occasions where they are discussed or unveiled.

Nigeria with its over 217 million population is characterized by tremendous activities use of plastics as packaging materials in some vital industries, including pharmaceuticals and fast-moving consumer goods, including food processing and beverages. Therefore, affordable alternatives to control inflation and promote a transition to low plastic economy is necessary. This requires both local and international collaborations. While the local partners hardly sought hence making it difficult to explore alternatives to plastics from the abundance of other more sustainable natural resource

The benefits of international collaboration are also not fully harnessed because of lack of information, lack of seriousness and instability in government which does not allow for continuity and sustainability of foreign initiatives.

Thus, remaining **key barriers** to implementing circular economy include can be summarised as:

- Insufficient knowledge and awareness on the negative effects of pure water and benefits of reuse models

- Lack of long-term strategy to tackle sound access to water

Having identified the various key barriers to effectively tackle the waters sachet menace and proposing strategies to overcome these barriers, this project will attain to achieve the following **outcomes**:

- Knowledge sharing and learning activities developed to support awareness-raising
- A strategy for upscaling lessons learned, achievements, and barriers at the national level

4. Current landscape of investments

The following projects and initiatives (Table 3) have been found in relation to the Child project, with which collaboration shall be established. However, most of the initiatives relate to pipe-borne water supply, which is key to solve the problem of access to water in the long-term. The Child project complements these efforts by promoting reuse and zero packaging options, which in any event will be valid for on-the-go water consumption.

Table 3. Existing projects/Initiatives

SN	Responsible organisation(s)	Title	Objectives - Key activities - Timeframe – Funding source - Budget
1	The World Bank's International Development Association (IDA): And the Federal Ministry of Water Resources	The Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene (SURWASH) Program	• This programme will be implemented as part of the Government of Nigeria **National Action Plan (NAP) for the Revitalization of Nigeria's Water Supply, Sanitation, and Hygiene Sector.** Designed to enact necessary policy reforms and enhance the capacity of institutions required for effective and sustainable service delivery • The SURWASH Program is projected to provide 6 million Nigerians with basic drinking water services, support 1.4 million in accessing improved sanitation services, develop improved WASH services in 2,000 schools and Health Care Facilities, and assist 500 communities in achieving Open Defecation Free (ODF) status. • Total project Cost: US$ 875.00 million and it was meant to be completed June 30, 2027[80]75
2	The World Bank and the Federal Ministry of Water Resources	Third National Urban Water Sector Reform Project	• Third National Urban Water Sector Reform Project that will ensure institutional reforms along with service delivery improvements. It has the following outcomes: Increased access to improved water service in the Selected States,: Improved financial viability of water utilities in the Selected States, and Increased investment planning capacity of the Participating States • The Project Development Objectives (PDO) are: a) to increase access to improved water supply service in selected States of Nigeria and improve the financial viability of existing water utilities in those States, and b) to increase the investment planning capacity of participating States. • The total cost is US$250 MILLION and was meant for completion in 2021
3	The World Bank and the Federal Ministry of Water Resources	The National Urban Water Sector Reform Program (NUWSRP)	• Government of Nigeria has developed initiatives designed to fill identified gaps which have limited citizens' ability to have access to safe and potable water • The NUWSRP outlined several objectives including sector reform, water utility sustainability and commercial viability, infrastructure improvement, service reliability and performance enhancement, and increased access to quality piped water networks in urban areas nationwide. • Achievements recorded through the NUWSRP include the construction of over 2,300 additional Water Points, and 6,546 sanitation compartments and hygiene facilities across the country; the creation of 12,435 direct and 24,870 indirect jobs since 2015; and the certification of a total of 33 Local Government Areas within nine States as Open Defecation Free (ODF).
4	African Development	Nigeria - Zaria Water	• The project is part of the programme for the Zaria Water Supply Expansion programme. It aims to contribute to Federal Government of Nigeria's efforts to increase access to water

SN	Responsible organisation(s)	Title	Objectives - Key activities - Timeframe – Funding source - Budget
	Fund, Kaduna State Government, Federal Government of Nigeria (FGN) and Islamic Development Bank (IsDB)	Supply Expansion and Sanitation Project	supply and sanitation from the current level of 54% for water and 32% for sanitation to 100% access by 2020. On the whole, the project will improve public health and standard of living in Zaria City and surroundings as well as increase the investment and operational conditions for industrial and commercial activities in the city, thereby enhancing opportunities for employment with improved livelihood of the residents the city and environs • The objectives of the proposed project are : (i) To improve access to safe water supply by residents (51% female) in the city of Zaria and its environs, from current levels of about 30% to 80% by 2016, and improve sanitation in schools, health centres and other public places like markets and motor parks (to 90%) by 2016, (ii) To improve service provision and commercial viability of Kaduna State Board, and (iii) to improve personal hygienic practices among school pupils and residents • The project will improve access to clean water and sanitation for an estimated population of 1.2 million residents in the city of Zaria and its environs (Zaria and Sabon Gari LGAs), including men, women and children. Local NGOs and CBOs will benefit from capacity building in carrying hygiene and sanitation promotion
	Lagos Water Corporation	Reactivation of Mosan Okunola Mini Waterworks, Abesan-Baruwa and further reticulation	• It is a project for reactivation of Mosan Okunola Mini Waterworks, Abesan-Baruwa and further reticulation in Lagos State • Communities that benefited from this project included Mosan Okunola, and Abesan-Baruwa • The project is expected to lead to improved water supply within the beneficiary communities
		Rehabilitation of Apapa Mini Waterworks and reactivitation of distribution network	• Rehabilitation of Apapa Mini Waterworks and reactivation of distribution network • This project is carried out for the benefit of residents of the Apapa Local Government Area • The project is expected to lead to improved water supply within the LGA
		Procurement of hot water borehole pump at Ikorodu Waterworks (Lagos Road)	• Procurement of hot water borehole pump at Ikorodu Waterworks (Lagos Road)
		Facility tanks at Alexander Waterworks V.I annex Waterworks & Magodo Waterworks	• Reconstruction of damaged surface and overhead water storage/processing at Alexander Waterworks V.I annex Waterworks & Magodo Waterworks • The project will benefit Lagos residence that recidVictoria Island, Victoria Island annex and Magodo
		Completion of Adiyan Phase2 70 MGD	• Completion of Adiyan Phase2 70 MGD Water Treatment Plant Construction • It is focused on increasing supply of clean drinkable water to residents of Lagos • Project is 83% completed

SN	Responsible organisation(s)	Title	Objectives - Key activities - Timeframe – Funding source - Budget
		Water Treatment Plant Construction	
		Completion of rehabilitation of 4 MGD Ishasi Waterworks	• The project was focused on the Completion of rehabilitation of 4 MGD Ishasi Waterworks

5. Lessons learnt, key drivers and enablers

Water is essential to human existence. Exposure to unclean water and poor sanitation is a major contributor to poor health conditions, because of increased vulnerability to water-borne diseases, including diarrhoea which leads to deaths of more than 70,000 Nigerian children under five annually. [81]76 It is the primary duty of the government to address this issue by providing access to clean water to its citizens through the establishment of sustainable infrastructure. However, achieving this goal has been very challenging due to some technical, financial, environmental, social, political, and institutional factors. [82]77 This has resulted in self-help by many Nigerians who continue to seek means to meet their water needs. Poverty makes this worse because a large number of these people don't have the money for personal boreholes or stacks of bottled water due to competing demands on their limited resources; instead, they buy affordable drinking water sources like sachet water or kegs of water from truck pushers who in turn patronize some commercial borehole owners.

There’s therefore the need for the government to provide clean drinkable water that will be accessible by both the rich and the poor. If clean water is running from taps within communities, the demand for packaged water will reduce drastically especially sachet water, it will improve hygiene, reduce waterborne diseases, and improve productivity while alleviating poverty. It will also reduce the patronage for sachet water, thereby minimizing the amount of plastic waste that is being generated across the country.

This project is addressing important national and health issues in Nigeria as it focuses meeting social needs as well as environmental sustainability, health, poverty alleviation and job creation.

Water should be given priority status. Considering that human beings cannot exist without water, people especially women and children have to travel several miles in some places to fetch water. Consideration for the execution of community-based water projects, such as boreholes; to bring clean water closer to everyone will go long way in reducing poverty, reduce plastic pollution and build a healthier citizenry.

Clean running water will drastically reduce the demand for packaged water and the producers can also start strategizing on packaging water in more environmentally friendly packages thereby creating more green jobs and healthy competition that will offer variety of choices to the consumers

Provision of water infrastructure comes with its attendant cost as borehole drilling, rain water harvesting, provision of storage facilities and taps to provide water can be capital intensive and the cost will vary from one community to the other, depending on the topography and other factors.

Financial commitment and political will is required on the part of the government while private organizations and NGOs can also undertake water projects as Corporate social responsibility (CSR). This is for example the case of ATWAP, which has piloted the supply of water in markets through truck tanks, which can be acknowledged as a good practice.

Banning pure water without creating an affordable and accessible alternative for the citizens especially those on the lower echelon of the financial/social strata, will only create untold hardship that will result to heavy backlash on the government. It will also encourage illegal production and selling of sachet water by producers and retailers.

The Child Project will follow the GEF transformation levers to achieve the long-term intended impact, the reduced plastic use and leakage into the environment while improving socioeconomic conditions and access to safe water:

- Governance and policies: The project will not only address existing policies and legislation commonly addressed by environmental administrations, but also those of the water sector, to streamline sound packaging in the productive sector. The project will also put in place a dedicated governmental committee to ensure coordination and alignment.
- Multi-stakeholder dialogues: The project will have a multi-stakeholder roundtable as a backbone for steering the project progress, allowing for knowledge exchange and agreement by different stakeholders within the water and related packaging sector.
- Innovation and learning: The project will pursue innovation in the water sector to drive it to more sound packaging practices. Working with business support organizations, and building their capacity, is a key strategy to build long-term capacities in addressing the project issue. Pilot projects beneficiaries will have the chance to learn through dedicated training workshops.
- Financial leverage: The project will support companies and entrepreneurs in accessing to funding by co-elaborating business models financing dossier. Likewise, meetings will be held with financial institutions to advocate for preferential financing conditions.
- Capacity for change: The project communication strategy shall allow for increased consumers awareness, as well as their empowerment to make sound decisions in relation to water products. The work on labelling to promote reuse shall also allow for this.

Furthermore, certain aspects found in the baseline shall enable a good starting ground for the implementation of the project:

- The existence of an important multi-stakeholder collaboration on plastics, i.e. NPAP. The child project is conceived in a collaborative effort with existing initiatives and to engage with the private sector to take responsibility on the products and packaging they put on the market. This is aligned with international efforts to abate plastic pollution (including the upcoming Global Treaty), and also producers' commitments to hold responsibility for this issue. This should allow for long-term sustainability of the project.

- - Pilot project, community-based initiatives to provide water through refill systems. The most crucial aspect of the project is to provide business opportunities based on water reuse/refill models, thus addressing poverty. This is a key element to raise awareness on negative impact of plastic packages and opening up other opportunities of the proposed solutions identified.

- - The increasing price of plastics, which poses higher costs on water companies, that could see the opportunity to change the business model to sell unpacked water and hence, saving high costs.

- - An increasing awareness on the unacceptability of the amount of plastic improperly discarded. creating awareness and ensuring access to clean water through sustainable initiatives and reducing the use of singe use plastic water packages is a sure way of sustaining the environment for future generation.

6. Project Cost-Effectiveness

The PMC cost of 5% of the total project budget provides a cost-effective approach regarding the implementation of the project. Cost-effectiveness will also be achieved by the PMU's role in coordinating the day-to-day project management tasks and by being hosted and co-financed by the NESREA, and through the provision of technical and policy support. NESREA will build upon their current work on plastics to ensure the contribution of GEF funds through the project provide cost-effective additional interventions in line with national commitments. NESREA will also integrate all results into their work-plan to ensure sustainability beyond the project completion. The PMU will be hosted through co-financing at NESREA premises in Abuja.

UNEP, as Implementation Agency will ensure that the project fully aligns and benefits from UNEP's current work on plastic includes developing authoritative and science-based knowledge products to inform policy and business action on plastic pollution (including the 2023 report on circular economy and plastics); supporting multilateral environmental agreements (MEAs) and convening the Intergovernmental Negotiating Committee (INC) meetings convening stakeholders and leveraging partnerships through UNEP's One Plastics Initiative and other global initiatives such as the New Plastics Economy Global Commitment, the Global Tourism Plastics Initiative, UNEP Finance Initiative, and the Global Partnership on Marine Litter; and implementing circular economy related projects at global, country and city level. Highlights of UNEP's knowledge products include the assessment of global, regional and national status quo of plastic pollution, life cycle assessment to compare different products and alternatives, existing national measures (regulation, policy) and solutions, methodologies and tools to monitor and track plastic pollution including marine litter, impacts of different future scenarios, as well as systemic approach, national action plans, roadmaps, priority settings and toolkits based on life cycle thinking and circular economy. The development of UNEP's knowledge products has taken a consultative and collaborative process with relevant stakeholders and has successfully raised global awareness, and supported the development of national policies and actions, such as banning single-use plastic products, extended producer responsibility, waste segregation, collection and recycling. UNEP's plastic knowledge is developed and widely disseminated through initiatives and knowledge platforms such as Global Partnership On Marine Litter, Life Cycle Initiative, World Environment Situation Room, Green Growth Knowledge Platform, International Resource Panel, and One Planet Network.

UNEP leverages strong partnership through multi-stakeholder engagement to achieve bigger impacts, together with governments, academia, civil society, and the private sector. Stakeholders are aligned behind a common vision and concerted set of actions to transform the plastic economy, to improve strategic planning and decision-making; strengthen enabling policies; support innovation and knowledge sharing; and enhance collective monitoring and accountability at all levels. UNEP's partnership is organised through global initiatives, as well as direct engagement with the private sector:

- The New Plastics Economy Global Commitment (led by Ellen MacArthur Foundation, in collaboration with UNEP) has united more than 500 organisations behind a common vision of a

circular economy for plastics to tackle plastic pollution at its source. Companies representing 20% of all plastic packaging produced globally and 21 governments have committed to ambitious 2025 targets to realise that common vision; 33 additional governments are in the process of joining in 2022.

- The Global Tourism Plastics Initiative, where over 100 leading tourism companies, suppliers, business associations, NGOs and certification schemes commit on the elimination of unnecessary single-use plastics, transition to reuse models and use of reusable, recyclable, or compostable plastic packaging and items.
- UNEP Finance Initiative works with over 460 banks (representing about 40% of global banking assets), institutional investors (representing 10.6 trillion USD) and insurers to help create a financial industry. UNEP FI develops a number of initiatives to support the finance sector in tackling plastic pollution, such as assessing their baseline and setting targets on circular economy, supporting the implementation of the Sustainable Blue Economy Finance Principles, and analysing liability risks associated with plastic pollution to the insurance industry.

UNEP also has implementation experience in the area of circular economy and plastic pollution at country and city level. UNEP has implemented at least eight GEF circular economy related projects in 35 countries (1 country specific, 4 regions, and 2 global) in the sectors of plastics, textiles, and electronics, totalling 61.5 million USD of GEF funding.

UNEP has a track record at the regional level to advance planning, management and policy transformation efforts through the Regional Seas Programme. UNEP also works on a variety of awareness raising campaigns and activities. The Clean Seas campaign engages governments, the general public, civil society, and the private sector in the fight against marine litter and plastic pollution. Since 2017, 63 countries (representing 60% of the world's coastlines) have joined the Clean Seas Campaign with ambitious pledges and important commitments to prevent marine litter and plastic pollution.

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B. CHILD PROJECT DESCRIPTION

This section asks for a theory of change as part of a joined-up description of the project as a whole, including how it addresses priorities related to the specific program, and how it will benefit from the coordination platform. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the guidance document. (Approximately 3-5 pages) see guidance here

Changes from the original Concept

The overall project structure presented in this document is consistent with the one presented in the concept note, albeit limited updates in the five components and associated budgets. The project design and activities were adapted to ensure cohesion in line with feedback received during PPG consultations with NESREA, as well as analysis of the policy and baseline situation, as outline in Table 4.

Table 4. Changes from the original Concept

Concept note	CEO endorsement	Comment
Component 1: Enabling regulatory and policy environment to develop solutions for accessible drinking water Outcomes: 1.1 Agreed regulatory frameworks, policies, and guidelines in place to transition towards a circular plastics economy in the food & beverage sector,	**Component 1:** Enabling regulatory and policy environment to develop solutions for accessible drinking water Outcomes: 1.1 Agreed regulatory frameworks, policies, and guidelines in place to	The original 3 outcomes have been kept, with minor wording changes to make them more specific to the project scope i.e. water sachets.

Concept note	CEO endorsement	Comment
especially focusing on provide clean drinking water and less plastic pollution 1.2 At least 3 national, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed 1.3. Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution in 6 Nigerian States	transition towards a circular plastics economy in the water sector. 1.2 National, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed. 1.3 Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution	
Component 2: Public-private investments to ensure access to clean drinking water through circular solutions <u>Outcomes:</u> 2.1. Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment 2.2. Fiscal policies and incentives developed to support circular solutions for clean drinking water 2.3 Private investment mobilized for circular solutions	**Component 2:** Public-private investments to ensure access to clean drinking water through circular solutions and eco-design <u>Outcomes:</u> 2.1 Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment. 2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water. 2.3 Private investment mobilized for circular solutions and implementation of eco-design practices by the water packaging sector.	A minor change is included in the component to reflect the inclusion of eco-design in existing water businesses. As for the outcomes, the 3 original outcomes are kept, but a minor change in the third one is included to capture eco-design as well
Component 3: Promoting circular solutions through pilots <u>Outcomes:</u> 3.1. Improved design and sector standards for circular products and material design to provide clean drinking water 3.2. Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse) 3.3. Alternative solutions adopted and upscaled under the partnership of governments and the private sector	**Component 3**: Promoting circular solutions through pilots <u>Outcomes:</u> 3.1. Framework for improved design and sector standards for circular products to provide clean drinking water in place. 3.2. Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse).	The original 4 outcomes in this component have been changed to two, in order to avoid overlap with other components. In fact, the outcome 3.2. includes the alternative solutions referred to under the original 3.3, and hence they are merged, whereas the upscale aspect is well considered in component 4. The same goes for 3.4, as the reporting is part of 3.2 and it's also considered in component 4 in relation to the multi-stakeholder's roundtable, where the results will be transparently shared.

Concept note	CEO endorsement	Comment
3.4 Commitments and transparent reporting generated on the progress, impacts and benefits of circular products and solutions		
Component 4: Advocacy and Awareness Raising Outcomes: 4.1. Knowledge sharing and learning activities developed to support awareness-raising, upscaling 4.2 A strategy for upscaling lessons learned, achievements, and barriers at the national level 4.3. Coordination with the global program	**Component 4:** Advocacy and Awareness Raising Outcomes: 4.1. Knowledge sharing and learning activities developed to support awareness-raising, upscaling. 4.2. A strategy for upscaling lessons learned, achievements, and barriers at the national level.	The third outcome is moved to an additional new component, common to other IP Child projects
	Component 5: National and Program-level Coordination, Knowledge Management and Communication Outcomes: 5.1. Effective National and Global Coordination including active participation and contribution to Global Project meetings and working groups. 5.2. Increased National and Global knowledge and awareness on Circular Solutions to Single Use Plastic Packaging Pollution from the Food and Beverage Sector	This additional component is included to ensure coordination with the Global Project, and alignment with other Child projects. It is to be noted that 5.2. includes overall project communication, whereas in 4.1 a specific awareness campaign will be implemented. That outcome also includes a consultative structure, which will complement the national coordination mechanisms included in 5.1.

Changes to co-financing

The original concept endorsed by the GEF stated 43 M USD in co-financing from solely NESEA, whereas the co-financing is secured is 34,173,279.33 USD. This has occurred for several reasons. NESREA's original calculations were over-ambitious and also included another GEF-funded project which is therefore not elegible as co-financing. Also, most importantly, Nigeria has suffered from a significant financial situation where the Nigerian Naira today is a third of the value it was 12 months ago. In spite of this, NESREA has secured additional co-financing letters from the European Union, Nigeria Federal Ministry of Environment, Standards Organization of Nigeria and the provate sector – Nigerian Bottling Company Ltd (a member of Coca Cola) and will continue to seek further co-financing.

Theory of Change

The Theory of Change in Figure 5 describes how the barriers, outcomes, objectives, and impact of the Nigeria Child Project are interlinked. The Theory of Change is also closely aligned with the Integrated Program Theory of Change. The Nigeria Child project will tackle pure packed water as major source of plastic pollution in a collaborative approach involving multi-level, topic-specific public authorities, financing institutions, private sector and non-governmental organizations. In doing that, emphasis will be on creating new economic opportunities based on water packaging reuse and zero packaging, rather than implementing hard policies to phase out water sachets. In fact, the private sector is fulfilling an essential need that public authorities are currently unable to. The scarcity of clean drinking water and the inefficient water pipeborn distribution are major contributors to the plastic waste generated from water sachets. The project will not intervene directly at that level, because there are important initiatives already addressing this issue (e.g. World Bank), but it focuses on water distribution through reuse/refill systems, which comes in complement to pipeborn distribution.The increasing surge of water sachets, including informal production, can be regarded as a cross-cutting barrier addressed by this project. There is a general untrust among consumers on tap water quality, hence the transition cannot be abrupt. In addition, public policies need to take into account the need to minimize economic impact on water producers and labour, while ensuring packaging and water safety, as well as reduction of plastic waste.

Policy development shall enable a level playing field for all water packaging companies through norms and standards. Likewise, building institutional capacity is needed for the policy formulation and enforcement. Fiscal incentives shall play a key role in leveraging both public and financial incentives to enhance water packaging practices and reuse business models. The incipient EPR system will be strengthened, with a particular and innovative focus on reuse, to drive this process. The EPR development will account for potential negative impacts on vulnerable groups such as informal colectors, and will involve them to the best extent possible in the reuse systems.

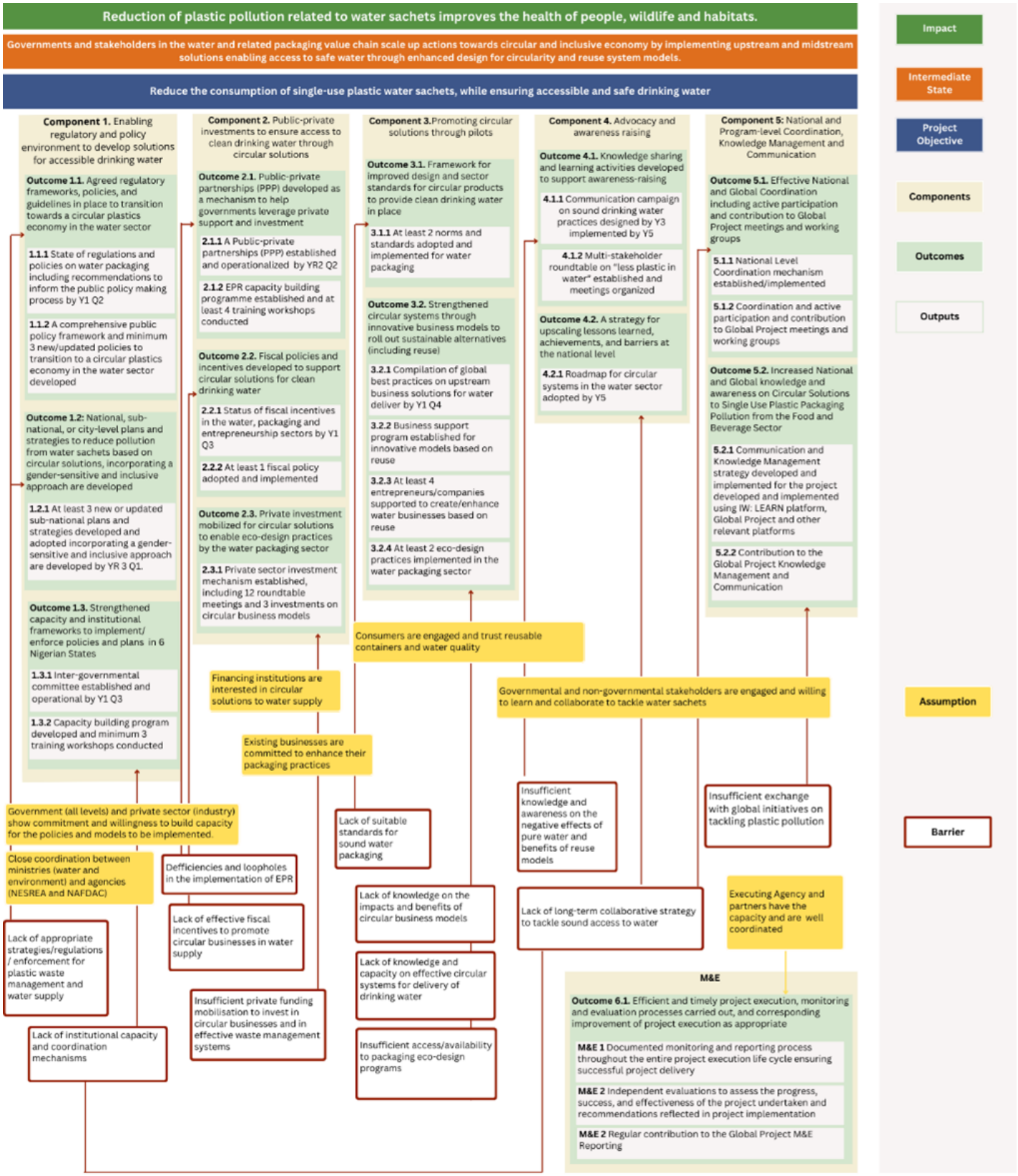
Piloting and upscaling business models based on reuse are critical to move away from water sachets. In fact, some practices exist but are not generalized. There is a need to show evidence on economic profitability of reuse business models in order to leverage funding, so water companies can switch to a different business model, boosted by the fact of cutting great costs in packaging. For this, reinforcing capacity of business support organizations (BSOs), which in turn can provide mentorship to companies and entrepreneurs, is an important investment in the long-term. Hence, selected pilot initiatives and projects will be supported through technical assistance, seed funding, access to market and access to finance. Women and vulnerable groups shall play a prominent position in running these reuse models, particularly in a community-based approach, and so it will have a particular focus in the project as in income generator activity. Likewise, eco-design practices will be sought and implemented in existing businesses.

Consumers uptake of these practices will be strongly promoted, and particularly by women and youth, through specific sociological research. For that, building trust on the provided water quality as well as supplying at an affordable price (less than pure water), is fundamental.

Finally, the exchange with other similar initiatives around the world will be beneficial to build confidence on reuse. Likewise, Nigeria could become frontrunner in the region in tackling water sachets.

The successful implementation of this multi-level approach should allow for a smooth and just transition from pure water to reuse/refill systems and eco-design practices, ultimately reducing plastic consumption and enhancing related environmental and social benefits. In addition, in a context of uprising prices of raw materials, reducing the reliance on packed water is a developmental strategy to ensure fulfilment of human rights. Likewise, efforts placed on improving environmental performance of water packaging sector is key ensure lesser environmental impacts.

Figure 5 Theory of Change



Project Components and expected results

The Plastics Integrated Program (IP) aims to trigger systems change to accelerate the transition towards a circular economy of plastics in the food and beverage sector, and prevent plastic pollution. Along these lines,

the Nigeria Child Project *Circular Solutions to Plastic Pollution in Nigeria* aims to reduce the consumption of single-use plastic water sachets in Nigeria, while ensuring accessible and safe drinking water.

The content of all six components has been designed based on the IP goals and theory of change and in consideration of the national priorities. Refinement of topics was made during the PPG phase through a comprehensive consultation, considering the needs and interests of key stakeholders, as well as their views on the feasibility and willingness to take a role in the implementation. In addition to consultation with the stakeholders, the following criteria were used to determine the inclusion/prioritization of topics in the Child Project:

a. a. The issue cannot be resolved by a single public authority or policy, there is a need for intergovernmental coordination, policy coherence, capacity building and enhanced enforcement.

b. b. The issue needs to leverage funding and create incentives for the private sector to invest in sound water business models, including in upgrading single-use plastic packaging as there will not be a full phase out.

c. c. Reuse/refill business models need to be piloted and upscaled to show evidence of the business case.

d. d. The issue needs consumers' buy-in, ensuring trust in water quality through reuse/refill systems.

e. e. There is a need for coordination both at national and with the IP to make best use of knowledge sharing and lessons learnt.

f. f. The project implementation needs clear implementation arrangements and means for successful delivery.

Component 1: Enabling regulatory and policy environment to develop solutions for accessible drinking water.

Component 1 provides the public policy framework to deliver safe drinking water to people, while reducing the negative impacts of discarded plastic packaging. In doing so, the coordination between several federal institutions, as well as with sub-national administrations, will be streamlined and mechanisms will be established to ensure alignment. NESREA as Executing Agency will implement the entire component, supported by external technical assistance. Strong governmental coordination will be ensured bringing on board the Federal Ministry of Environment, Federal Ministry of Water, related States' ministries, NAFDAC, SON, and SMEDAN, among others. Agreements will be completed with governmental institutions to ensure collaboration, alignment, and uptake of results. The recent work by UNIDO on establishing the steering committee for the project *Study on plastic value-chain in Nigeria* provides a good basis to build on. However, specific emphasis on upstream policies is still lacking.

Based on the analysis of the baseline and consultations, the outcomes and outputs of Component 1 are presented in Figure 6 below.

Figure 6. Structure of Component 1

1.Enabling regulatory and policy environment to develop solutions for accessible drinking water	2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design	3 Promoting circular solutions through pilots	4 Advocacy and Awareness Raising	5 National and Program-level Coordination, Knowledge Management and Communication
1.1 Agreed regulatory frameworks, policies, and guidelines in place to transition towards a circular plastics economy in the water sector.				
1.1.1 State of regulations and policies on water packaging assessed, including recommendations to inform the public policy making process by Y1 Q2.				

1.1.1.1 Policy gap analysis and policy priority intervention 1.1.1.2 Benchmark on policy measures to promote sound water supply
1.1.2 A comprehensive public policy framework including minimum 3 draft policies to transition to a circular plastics economy in the water sector developed by Y2 Q3
1.1.2.1 Feasibility and technical studies Activity 1.1.2.2 Draft policies and regulations regarding the water sector and plastic waste
1.2 National, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed.
1.2.1 At least 3 new or updated sub-national plans and strategies developed and adopted incorporating a gender-sensitive and inclusive approach are developed by YR 3 Q1
1.2.1.1 Stock take and analysis of existing sub-national plans and strategies 1.2.1.2 Elaboration of sub-national plans and strategies 1.2.1.3 Endorsement of plans and implementation kick-off
1.3 Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution
1.3.1 Inter-governmental committee established and operational by Y1 Q3
1.3.1.1 Establishment of the inter-governmental committee 1.3.1.2 Inter-governmental committee meetings
1.3.2. Capacity building program developed and minimum 3 training workshops conducted
1.3.2.1 Training programme and guidelines for public authorities 1.3.2.2 Federal capacity building workshops

Outcome 1.1. Agreed regulatory frameworks, policies, and guidelines in place to transition towards a circular plastics economy in the water sector.

Although there are policies and legislation in relation to water sachets and related waste, the provisions are unfit for the challenged they pose, and enforcement is weak. In order to address this, a policy gap analysis and benchmark will allow for identifying priorities of intervention in upstream measures. Next, policies and legislation will be developed/amended, backed by technical studies to ensure proper technical feasibility and consultation with key stakeholders.

New/amended policies and legislation, backed by technical studies and stakeholder consultations that incorporate provisions promoting gender equality such as mandating women's representation in decision-making bodies, will be developed. Implementation will include gender-sensitive capacity building targeting both women and men, establish mechanisms for gender-disaggregated data collection, monitoring and evaluation of gender outcomes, and ensure gender-responsive enforcement through training, grievance channels, and gender-specific compliance support/incentives.

Output 1.1.1 Status/gap analysis of regulations and policies on water packaging assessed, including recommendations by Y1 Q2

The policy gap analysis will take stock of existing policies and legislation in relation to water, packaging and waste, and then analyze their effectiveness and remaining gaps. This will allow for defining priorities for intervention, which will be supported by a benchmark to gain knowledge on how these issues have been addressed elsewhere, and particularly in similar socioeconomic context.

Output targets	Activities
- 1 policy gap analysis produced by Y1 Q3 - 5 good practices analyzed in benchmark by Y1 Q3 - Gender-specific targets: At least 40% women's participation in consultations and analysis process	Activity 1.1.1.1 Policy gap analysis and policy priority intervention

	Activity 1.1.1.2 Benchmark on policy measures to promote sound water supply
Implementation and partners	
NESREA will implement including through external expert support, and consultation with relevant authorities. In relation to the benchmark, collaboration will be established with the Global Project.	

- **Activity 1.1.1.1 Policy gap analysis and policy priority intervention**

After screening policies and regulations at federal level, in relation to water, packaging and waste, a policy gap will be conducted to identify key areas of improvement and policy coherence. A wide range of policies and regulations will be addressed, including: packed water quality, licensing of water companies, EPR development, deposit-refund scheme development for beverage bottles, and green public procurement, among others.

The analysis will also tackle the degree of implementation and identify key areas where capacity building is needed, as well as coordination intergovernmental mechanisms.

- **Activity 1.1.1.2 Benchmark on policy measures to promote sound water supply**

Once the key areas of improvement are identified in the policy gap analysis, a benchmark report will include case studies of specific policy measures implemented in similar geographic and socioeconomic contexts. This will inform upcoming activities on policy development and capacity building.

Output 1.1.2. A comprehensive public policy framework developed including minimum 3 draft policies to transition to a circular plastics economy in the water sector by Y2 Q3

Starting from the priorities established in the previous output, at least 3 policies/legislation will be developed at the federal level. Considering the current status and analysis of the baseline, it seems the EPR framework will be key to be further developed, but others such as deposit-refund schemes or green public procurement shall be addressed as appropriate. The new instruments will be supported by feasibility assessment and technical studies, to ensure smooth implementation and avoidance of trade-offs. Overall, consultation with other public authorities will be key to ensure policy coherence.

Output targets	Activities
- 3 selected policies developed, improved or prepared for consideration/submission by Y3 - 2 technical/feasibility studies conducted in support of policy decision by Y3 - Gender-specific targets: o Gender perspectives and needs fully mainstreamed in the policy framework o At least 40% women's participation in the policy development process o 100% of guidelines have gender inclusiveness integrated	Activity 1.1.2.1 Feasibility assessment and technical studies Activity 1.1.2.2 Draft policies and regulations regarding the water sector and plastic waste
Implementation and partners	
NESREA will implement including through external expert support, and consultation with relevant authorities. The latter will agree on the policies and regulations to be developed under their competence and expertise, ensuring later uptake	

- **Activity 1.1.2.1 Feasibility assessment and technical studies**

Based on the results of the policy priorities intervention, feasibility studies and/or impact assessments for policies and regulations will be conducted. This will allow for selected best approaches, build consensus among stakeholders and empower upcoming implementation. These studies will address for example the development of a deposit-refund scheme for beverage containers and/or mandatory technical specifications of packaging.

- **Activity 1.1.2.2 Draft policies and regulations regarding the water sector and plastic waste**

Considering the policy priority intervention and the feasibility studies, new legal instruments/policies or proposals for amendments will be drafted, and NESREA will ensure they follow the administrative procedure for further consideration. This could entail the enactment of EPR implementation acts, technical requirements of water packaging, as well as formal institutional arrangements between federal administrations (for example between NESREA and NAFDAC so the subscription to the EPR system is ensured in the process of licensing packed water companies).

Inter-governmental consultation meetings will occur to ensure policy coherence and coordination, as well as information and consultation with non-governmental stakeholders through the dedicated outputs 1.3.1 and 4.1.2.

Outcome 1.2. National, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed.

This outcome intends to domesticate at the states level the policy and legislation included in the previous outcome. However, there are already some states with strategies in relation to plastic waste, and hence they should be reviewed and aligned with the previous outcome, making sure gender issues are streamlined and specifically addressed through conducting more specific gender analyses to understand the differentiated impacts, roles and needs of women and men in relation to water sachet pollution and circular solutions. The review and alignment process will involve consultations with women's groups, gender experts, and other relevant stakeholders representing diverse genders and social groups. Specific measures will be incorporated to promote gender equality and social inclusion, such as ensuring equitable access for women and marginalized groups to resources and decision-making processes related to circular solutions and establishing mechanisms for gender-disaggregated data collection and monitoring of gender and social outcomes.

The work under this outcome can build on existing plans but also elaborate new plans for other states. For the drafting of the plans, state-specific advisory boards will be created, which will steer the process and contribute to the elaboration of the plan. Ultimately, they will validate the plan and advocate towards concerned public authorities for adoption and implementation. To the extent possible, the Child project will serve to start implementing some of activities of the plan.

Output 1.2.1. At least 3 new or updated sub-national plans and strategies developed and adopted incorporating a gender-sensitive and inclusive approach are developed by YR 3 Q1

There is only one output corresponding to the outcome, so the same description applies.

Output targets	Activities
- 1 review of existing plans and strategies at sub-national level by Y3 - 3 new/enhanced sub-national plans drafted and endorsed by Y4 - 3 advisory boards in place by Y4, with at least 2 meetings per year - 3 implementation plans by Y5	Activity 1.2.1.1 Stocktake and analysis of existing sub-national plans and strategies Activity 1.2.1.2 Elaboration of sub-national plans and strategies

- Gender-specific targets: o At least 40% women's participation in the planning process o Gender-specific needs and concerns fully addressed in the plans/strategies	Activity 1.2.1.3 Endorsement of plans and implementation kick-off
Implementation and partners	
NESREA will implement including through external expert support and gender expert. Strong collaboration will be put in place with public authorities in selected States, such as States ministries and environmental protection agencies. Other key stakeholders will be brought on board, particularly through the advisory board to be established per sub-national plan and strategy.	

- **Activity 1.2.1.1 Stocktake and analysis of existing sub-national plans and strategies**

Since some Nigeria states already have waste or water related plans, a stock take will be conducted for a thorough identification of those plans during the inception phase. They will also be assessed in order to identify lessons learnt, potential for improvement, or for further support in the implementation. The stock take will also look at the alignment at sub-national level of the policies and regulations developed in Output 1.1.2.

- **Activity 1.2.1.2 Elaboration of sub-national plans and strategies**

At least 3 administrative areas for further work will be selected during the inception phase and agreements will be made with the relevant sub-national authorities, such as LASEPA in Lagos. NESREA will be in charge of drafting and/or upgrading the plans, allowing for the articulation of newer federal policies at sub-national levels. Due to gender specificities, considerations will be included throughout the process and the implementation with the support of the external gender expert.

An advisory board per plan will be set up, and terms of reference adopted by the members, both governmental and non-governmental organizations. Consultation meetings will occur to fine tune and validate the plans. The project will liaise with existing initiatives that bring together the same type stakeholders, to avoid overlap and fatigue. This advisory board will oversee the plan implementation according to the workplan.

- **Activity 1.2.1.3 Endorsement of plans and implementation kick-off.**

Once the plans are validated by the advisory board, it will be submitted to the relevant public authority for endorsement, including corresponding implementation plans. Actions will start being carried out with project funding to the extent possible, and additional resources will be ensured through other initiatives.

Outcome 1.3. Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution

According to the analyzed baseline, a lack of technical capacities has been identified, as well as insufficient coordination among public authorities. In order to address the latter, an inter-governmental committee will be put in place, including governmental representatives at the state level, with a balanced representation of women and men. This committee will steer the implementation of component 1 and ensure policy coherence, avoiding further surge of water sachets. The committee's composition and operations will be guided by gender mainstreaming principles to promote equal participation and consideration of gender perspectives.

As for capacity building, the policy gap analysis will identify training needs, taking into account gender-specific capacity gaps and the differentiated roles and responsibilities of women and men in the water sachet value chain. A gender-sensitive training program will be developed and delivered within the Child project through workshops. The training content and delivery methods will be designed to address gender-specific barriers and facilitate equal access to capacity-building opportunities for both women and men. Gender

experts and women's organizations will be consulted in the development and implementation of the training program.

Output 1.3.1. Inter-governmental committee established and operational by Y1 Q3

Following the work in the policy gap analysis, federal authorities will be identified (and their representatives at the state level) and invited to join the inter-governmental committee. Terms of reference will be proposed and adopted at the first meeting. The meetings will take place at least once a year. In addition to discussing the project implementation, and particularly component 1, the members will be invited to take an active role in sharing their activities in relation to the project.

Output targets	Activities
- 1 Terms of Reference for inter-governmental committee by Y1 Q3 - 1 meeting per year, starting in Y1 Q3	Activity 1.3.1.1 Establishment of the inter-governmental committee Activity 1.3.1.2 Inter-governmental committee meetings
Implementation and partners	
NESREA will implement including through external expert support, and consultation with relevant authorities	

Activity 1.3.1.1 Establishment of the inter-governmental committee

In order to steer the implementation of the Component 1, an inter-governmental committee will be set up comprising not only concerned authorities at federal level, but also with the participation of their delegations in 6 Nigerian states. It will have a key role in Output 1.1.2 for the development/enhancement of policies and regulations. It will meet at least once per year. Terms of reference for the functioning of the committee will be prepared and agreed in the first meeting.

Activity 1.3.1.2 Inter-governmental committee meetings

The inter-governmental committee will meet at least once per year, in-person or online. Meetings will be convened by NESREA as chair of the committee, and agendas and background documents will be sent well in advance to the members, who may be requested to present specific content, such as the sub-national plans. NESREA will produce meetings reports and share among the members.

Output 1.3.2. Capacity building program developed and minimum 3 training workshops conducted

Based on the findings of the policy gap analysis, a training programme will be elaborated for concerned federal authorities in relation to water sachets and related packaging. For the delivery, specific guidelines will be elaborated, which will ensure a long-term legacy of the project. They will be thoroughly used in the training workshops, coordinated by NESREA and with expert contributions from other federal authorties and external experts, including from the Global Project.

Output targets	Activities
- 2 guidelines drafted to fulfil the identified capacity building needs by Y2 - 1 training programme prepared, including 3 training workshops by Y4 - At least 100 people benefiting from federal capacity building workshops - Gender-specific targets:	Activity 1.3.2.1 Training programme and guidelines for public authorities Activity 1.3.2.2 Federal capacity building workshops

○ At least 50% women participants in the training workshops ○ Equal knowledge and skills gained by women and men	
Implementation and partners	
NESREA will implement including through external expert support, and consultation with relevant authorities. Trainers will be selected within the public authorities, as well as external ones with strong expertise on the selected topics (including experts mobilised by the Global Project).	

- **Activity 1.3.2.1 Training programme and guidelines for public authorities**

In addition to overseeing the component implementation, these inter-governmental committee meetings will serve to build capacity of participating authorities. Guidelines will be drafted to fulfill the identified capacity building needs in Output 1.1.1, along with a tailored training programme for federal authorities. Specific topics according to the development of Output 1.1.2 will be addressed, including the implementation and enforcement mechanisms. Best practices will be shared as per Output 1.1.1.

- **Activity 1.3.2.2 Federal capacity building workshops**

The workshops will be conducted back-to-back to the inter-governmental committee meetings. They will be coordinated by NESREA, with expert input whether from other Nigerian authorities or expert input from other project activities. The guidelines prepared in the previous activity, as well as best practices, will be key content within these workshops.

Component 2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design

Component 2 will engage with existing water and packaging businesses towards more circular practices. For this, a first element is to put forward public-private partnerships, particularly using EPR as a framework, where the public and private collaboration is needed. EPR is still incipient in Nigeria, and the Child project is an opportunity to consolidate it, and especially to pay proper attention to reuse/refill systems in this framework. Fiscal policies are also a great incentive to transition to more circular businesses, and hence options will be explored. Finally, work with financial institutions shall leverage funding for private companies so they can implement circular business models.

Figure 7. Structure of Component 2

1.Enabling regulatory and policy environment to develop solutions for accessible drinking water	**2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design**	3 Promoting circular solutions through pilots	4 Advocacy and Awareness Raising	5 National and Program-level Coordination, Knowledge Management and Communication
2.1 Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment.				
2.1.1. Public-private partnership (PPP) established and operationalized by YR2 Q2				
2.1.1.1 Institutional arrangement between NESREA and NAFDAC 2.1.1.2 Setting up the electronic registry of producers 2.1.1.3 Update of the NESREA-EPR business plan				
2.1.2 EPR capacity building programme established and at least 4 training workshops conducted				
2.1.2.1 Conception of an EPR training programme 2.1.2.2 EPR training workshops				
2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water.				
2.2.1 Status of fiscal incentives in the water, packaging and entrepreneurship sectors assessed by Y2 Q4				
2.2.1.1 Assessment of fiscal policies in relation to sound water supply				
2.2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water				
2.2.2.1 Adoption and implementation of fiscal policies				
2.3 Private investment mobilized for circular solutions and implementation of eco-design practices by the water packaging sector.				
2.3.1 Private sector investment mechanism established, including 12 roundtable meetings and 3 investments on circular business models.				

2.3.1.1 Mapping of financing institutions and options 2.3.1.2 Elaboration of water business models based on reuse/zero packaging 2.3.1.3 Leverage of funding from financing institutions

Outcome 2.1 Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment.

The incipient EPR system in Nigeria shall be regarded as a key framework for collaboration between public and private organizations to switch to sound water packaging practices, and particularly promote reuse/refill options. However, as described in the Project Rationale, the deployment in the country is still very limited. NESREA, as enforcement agency, has registered several operators in the EPR programme, including producers, Producer Responsibility Organizations (PROs), recyclers and collectors, but the number is still very low. In developing and strengthening the PPP mechanism, gender considerations will be mainstreamed to ensure equal participation and benefits for women and men.

There is a need for better framing the EPR system, including institutional arrangements, monitoring and accountability tools, as well as a clear business plan where responsibilities are assigned and provisions to promote circular business models are clear. In this process, gender analyses will be conducted to identify gender-specific barriers, opportunities, and impacts related to the EPR system and circular business models. The institutional arrangements, monitoring frameworks, and business plans will incorporate gender-responsive measures, such as:

- * Ensuring balanced representation and leadership roles for women in decision-making bodies and committees.
- * Establishing gender-specific targets, indicators, and accountability mechanisms.
- * Providing capacity-building and support programmes tailored to the needs and challenges faced by women entrepreneurs and workers in the water sachet value chain.
- * Promoting gender-inclusive and empowering circular business models that create economic opportunities for women.

Capacity building, both for NESREA and other stakeholders, including at the state level, is a necessary condition to move forward. These capacity-building initiatives will adopt a gender-sensitive approach, addressing gender-specific capacity gaps, facilitating equal access to training and resources for women and men, and involving gender experts and women's organizations in the design and delivery of the programmes.

Output 2.1.1. Public-private partnership (PPP) established and operationalized by Y2 Q2.

Specific actions are needed to advance in the enforcement and implementation of EPR in Nigeria, generally for packaging and specifically in the water sector. Firstly, institutional arrangements are needed between NESREA and NAFDAC to ensure enforcement and avoid free-riders. Secondly, the registry of producers is a key element to monitor EPR implementation and ensure accountability. Finally, the NESREA-EPR business plan will be updated to include eco-modulation as a driving force for sound packaging practices, and particularly promote reuse/refill options.

Output targets	Activities

- 1 legal text adopted on NAFDAC's role in implementing EPR, coordinated with NESREA, by Y2 Q2 - 1 electronic registry of producers established by Y3 - 1 operational guideline produced for the registry by Y3 - 1 updated business plan of NESREA-EPR system - 4 NESREA annual reports on the use of funds, starting in Y2	Activity 2.1.1.1 Institutional arrangement between NESREA and NAFDAC Activity 2.1.1.2 Setting up the electronic registry of producers Activity 2.1.1.3 Update of the NESREA-EPR business plan
Implementation and partners	
NESREA will implement this output. It will liaise with NAFDAC to agree on the institutional arrangement between the two federal agencies, as well as with the customs administration. For the registry of producers, EPR external expertise will be mobilised, as well as Information Technology (IT) for the execution and maintenance of the online registry. The EPR external expertise will also support NESREA in drafting the business plan. Expert support will also be sought from the Global Project.	

Activity 2.1.1.1 Institutional arrangement between NESREA and NAFDAC

In order to ensure F&B businesses are compliant with the EPR scheme, formal collaboration will be established between NESREA and the National Agency for Food and Drug Administration and Control (NAFDAC). The latter is responsible for licensing F&B operational businesses, and the registration to the EPR system shall become mandatory to obtain de license. For this, a legal text will be drafted and adopted by concerned institutions.

Activity 2.1.1.2 Setting up the electronic registry of producers

The electronic registry of producers will be set up and operational guidelines produced, in collaboration with Producer Responsibility Organizations (PROs), along with reporting obligations for F&B operators and other stakeholders in the value chain. External IT support will be mobilized to materialize the registry. The registry will serve to monitor quantities and types of packaging put on the market, and eventually companies would pay fees according to that (currently they pay a flat-fee). For this to happen, a liaison with the customs administration will be established to be able to account for imported products.

Activity 2.1.1.3 Update of the NESREA-EPR business plan

The NESREA EPR business plan will be updated to specify where and how the funds raised by the fees will be allocated. In this sense, particular attention will be given to reuse options, so companies are encouraged to sell part of their production through reuse/refill options (e.g. setting up a fund using the funds raised or mandating to sell part of the production in refill options). NESREA will produce annual reports on the implementation of EPR, including how the funds are being used.

Output 2.1.2. EPR capacity building programme established and at least 4 training workshops conducted.

The baseline analysis identified the need to build capacity on EPR both for public and private stakeholders. Topics such as enforcement mechanisms, fees calculations (including eco-modulation), monitoring and information flow shall be covered. The training workshops shall target both federal and state stakeholders, to enable implementation on the ground.

Output targets	Activities

- 1 training programme conceived by Y1 Q4 - At least 4 training workshops conducted until project end - At least 50 people benefiting from EPR training workshops - Gender-specific targets: o At least 30% of women reached by the information workshop on EPR o At least 30% of women conducting the information workshop on EPR o At least 30% of women participating in the EPR Working Group	Activity 2.1.2.1 Conception of an EPR training programme Activity 2.1.2.2 EPR training workshops
Implementation and partners	
NESREA will implement this output in close collaboration with the Global Project, which in turn will deliver capacity building sessions. Specific EPR external expertise, considering the socioeconomic context and country knowledge, will be mobilised	

Activity 2.1.2.1 Conception of an EPR training programme

The elements above require capacity building mostly for NESREA, NAFDAC and the private sector (PROs and companies). For that, a training programme will be conceived, based on a capacity building needs assessment and in collaboration with the Global Project, which will have capacity building activities as well.

Activity 2.1.2.2 EPR training workshops

Based on the above, training workshops will be delivered by national and international experts throughout the project implementation, in collaboration with the Global Project. Specific topics shall comprise:

o Registry of producers: maintenance and reporting system.

o Fees eco-modulation: eventually, producers would pay different fees according to the type of packaging they put on the market.

o EPR enforcement: collaboration among concerned organization to prevent free-riders and intervention protocol when infringement is found.

o Enhancement of collection-recycling system: funds raised by the EPR system shall support better collection and recycling. For that different options shall be addressed, including segregation at source, formalization of waste pickers, waste tracking, etc.

Outcome 2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water

Fiscal policies can play a driving role in creating enabling economic conditions for circular business models, and so the Child project will work in this sense. An assessment will be conducted to identify existing fiscal policies and how they affect the water/packaging/entrepreneurship sector, including a gender analysis to understand the differentiated impacts of these policies on women and men.

Based on best practices, guidance from the Global Project, and consultations with gender experts and women's organizations, proposals for new/amended fiscal policies will be drafted. These proposals will incorporate gender-responsive measures, such as:

- Incentives and support mechanisms tailored to promote women's participation and leadership in circular business models and entrepreneurship opportunities related to clean drinking water solutions.

- Fiscal policies that address gender-specific barriers faced by women in accessing finance, resources, and markets.

- Gender-responsive criteria and targets for fiscal incentives aimed at promoting circular solutions, ensuring equitable access and benefits for women-owned/led businesses and initiatives.

The adoption and implementation process for these fiscal policies will involve stakeholder consultations, including women's groups and gender experts, to ensure gender perspectives are adequately considered and addressed.

Output 2.2.1 Status of fiscal incentives in the water, packaging and entrepreneurship assessed sectors by Y2 Q4

A thorough assessment will be performed, both at federal and state level, to identify fiscal policies having an effect on the water, packaging and green entrepreneurship. In collaboration with the Global Project, international best practices will be identified and explore the feasibility to follow those approaches in Nigeria.

Output targets	Activities
- 1 fiscal policies assessment report	Activity 2.2.1.1 Assessment of fiscal policies in relation to sound water supply
Implementation and partners	
Expertise on fiscal policies will be mobilised, who should be supervised together by NESREA and the Federal Ministry of Water. The Federal Ministry of Finance and Economic Development will be mobilised as need be. Advice will be sought from the Global Project which will work in these aspects and produce specific guiding resources.	

Activity 2.2.1.1 Assessment of fiscal policies in relation to sound water supply

Following the guidance by the Global Project on public finance modalities and fiscal policies to create an enabling environment for the uptake of circular products, policies, innovation, technologies, solutions, and infrastructure, a national assessment will be conducted to know the status in Nigeria, identify best practices and opportunities for intervention. Proposed fiscal policy interventions to promote the transition to circularity include taxes on virgin plastics or VAT reduction for recycled content and the use of secondary materials, so this will be addressed. For this, interviews will be held with relevant national authorities such as the Ministry of Finance, Ministry of Water and Ministry of Environment.

Output 2.2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water

Based on the previous output, the project will propose amendments to existing policies, or create new ones, at federal and/or state level as appropriate. The project will advocate for adoption by concerned authorities, making use of the Inter-governmental committee (output 1.3.1).

Output targets	Activities
- At least one fiscal policy amended/adopted	Activity 2.2.2.1 Adoption and implementation of fiscal policies
Implementation and partners	
Expertise on fiscal policies will be mobilised, who should be supervised together by NESREA and the Federal Ministry of Water. The Federal Ministry of Finance and Economic Development will be mobilised as need be. Advice will be sought from the Global Project which will work in these aspects and produce specific guiding resources.	

Activity 2.2.2.1 Adoption and implementation of fiscal policies

Based on the result of the previous output, amendments to at least an existing fiscal policy, or the proposal of new one, will be drafted and adoption pursued. This could relate to subsidies to make access to water affordable, or exemptions to value adding and other taxation arrangements that apply to water reuse business models.

Outcome 2.3 Private investment mobilized for circular solutions and implementation of eco-design practices by the water packaging sector.

Policymakers can accelerate private investment in a circular economy for plastics, just as they have with renewable energy and other sectors. The Sustainable Use of Natural Resources and Energy Finance (SUNREF) initiative created by the Agence Française de Développement (AFD) and implemented in Nigeria by Access Bank and UBA, with technical assistance provided by the Manufacturers Association of Nigeria, facilitated domestic commercial bank lending to renewable energy and energy efficiency companies and projects. This program may provide a template for stimulating access to capital for SMEs and other actors in the water and plastics value chain, with a gender lens applied.

Building on this programme, a first step will be to map financing institutions and their services portfolio, including an assessment of their gender policies, products, and services tailored for women entrepreneurs and gender-responsive businesses. In parallel, the elaboration of water business models based on reuse/zero packaging will include financial plans and investment needs, with specific considerations for gender-inclusive and empowering business models that create economic opportunities for women.

With this information, meetings will be held with financing institutions to leverage funding and advocate for preferential conditions for gender-responsive and women-led circular solutions in the water and plastics value chain. This will involve:

- * Engaging with financing institutions to develop gender-responsive investment criteria, products, and services that facilitate access to capital for women entrepreneurs and businesses implementing circular solutions.
- * Providing capacity-building and technical assistance to women-led SMEs and entrepreneurs to develop bankable projects and access financing for circular solutions and eco-design practices.
- * Establishing partnerships and collaborations with women's business associations, networks, and gender-focused organizations to support the mobilization of private investment in gender-responsive circular solutions.

Output 2.3.1. Private sector investment mechanism established, including 12 roundtable meetings and 3 investments on circular business models.

There is only one output for this outcome, so the same description applies.

Output targets	Activities
- 1 mapping of public and private finance institutions - 6 bankable business models elaborated - At least 12 meetings with financing institutions - Funding raised for at least 3 business models	Activity 2.3.1.1 Mapping of financing institutions and options Activity 2.3.1.2 Elaboration of water business models based on reuse/zero packaging

- At least 500,000 USD leveraged - Gender-specific targets: o At least 30% of the circular businesses' models women-led businesses/initiatives (or employing a majority of women) o At least 30% of participants involved in the design and implementation of circular businesses models are female	Activity 2.3.1.3 Leverage of funding from financing institutions
Implementation and partners	
NESREA will implement this output and engage a finance expert who will map financing institutions and their services, and organise meetings with them where bankable project will be presented. The elaboration of those projects will come from the business support organisation engaged in Component 3.	

Activity 2.3.1.1 Mapping of financing institutions and options

As some businesses will need access to finance to implement the new business model, the project will collaborate with both public and private financing institutions, previously mapped and described in terms of financing options and conditions.

Activity 2.3.1.2 Elaboration of bankable water business models based on reuse/zero packaging

Based on the business support programme implemented in Component 3, at least 6 bankable business models will be elaborated, either by the Child Project itself or providing technical assistance to interested companies and entrepreneurs. In the case of business models developed by the Child Project, they will be widely disseminated to entrepreneurs for uptake and further development.

Activity 2.3.1.3 Leverage of funding from financing institutions

Meetings will be held with investors and financial institutions to advocate for preferential credit conditions to circular packaging solutions, and particularly to explore leverage of funding for at least 3 circular business models previously developed. These meetings will take the shape of roundtables, in a way that financing institutions are associated to the project and their considerations can be taken into account. Companies and entrepreneurs will be invited as well, serving as match-making events.

Component 3. Promoting circular solutions through pilots

This component focuses specifically on promotion of reuse options, whereas the previous one includes improvement of single-use packaging options. This component touches upon norms and standards as a strategy to ensure safe water packaging and create a level playing field for the industrial sector. Even if reuse packaging will be the main target, other single-use packaging shall be considered as appropriate. A core element of the Child Project will be the implementation of pilot actions based on reuse. In this sense, business support organisations (BSOs) will play a key role in mentoring pilot project beneficiaries, and ensuring built capacities will be long-lasting after the project closure.

Figure 8. Structure of Component 3

1.Enabling regulatory and policy environment to develop solutions for accessible drinking water	2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design	**3 Promoting circular solutions through pilots**	4 Advocacy and Awareness Raising	5 National and Program-level Coordination, Knowledge Management and Communication
Outcome 3.1 Framework for improved design and sector standards for circular products to provide clean drinking water in place.				
3.1.1 At least 2 norms and standards adopted and implemented for water packaging.				
3.1.1.1 Benchmark on norms and standards for water packaging 3.1.1.2 Elaboration and adoption of norms/standards				
Outcome 3.2 Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse).				

Output 3.2.1. Compilation of global best practices on upstream business solutions for water delivered by Y1 Q4
3.2.1.1 Analysis of global best practices on upstream business solutions for water delivery
Output 3.2.2. Business support program established for innovative models based on reuse.
3.2.2.1 Capacity building of Business Support Organization 3.2.2.2 Draft terms of reference for selection of pilot projects and provision of mentorship services 3.2.2.3 Scalability and further support needs to businesses
Output 3.2.3. At least 4 entrepreneurs/companies supported to create/enhance water businesses based on reuse.
3.2.3.1 Call for proposals and selection of pilots for sound water delivery 3.2.3.2 Implementation of pilot projects
Output 3.2.4. At least 2 eco-design practices implemented in the water packaging sector.
3.2.4.1 Technical assistance to water packed companies 3.2.4.2 Implementation of eco-design practices by water packed companies

Outcome 3.1 Framework for improved design and sector standards for circular products to provide clean drinking water in place.

As described in the baseline, there are no norms and standards for packaging options in the water sector, they only apply to the quality of water. However, packaging norms are very important to ensure water safety and good industrial performance. Likewise, labelling is an element that can influence consumers' behavior towards reuse or proper disposal. Hence, a first step will be to conduct a benchmark on reuse packaging norms (and other types of packaging, as appropriate, for example on recycled content in single-use packaging), with a gender lens applied.

The benchmarking process will include a gender analysis to assess the differentiated impacts, roles, and needs of women and men in relation to packaging design, standards, and consumer behavior. Consultations will be held with women's groups, gender experts, and relevant stakeholders representing diverse genders and social groups to gather insights and perspectives.

Based on the benchmarking and gender analysis, specific norms and standards for packaging in the Nigerian water sector will be proposed, incorporating gender-responsive considerations, such as:

- ∗ Design guidelines and standards that address the specific needs and preferences of women consumers and users, including safety, accessibility, and ease of use.
- ∗ Labelling requirements that provide gender-sensitive information and instructions to promote responsible consumption, reuse, and disposal practices.
- ∗ Standards and incentives for packaging solutions that create economic opportunities and decent work for women in the circular economy value chain.
- ∗ Mechanisms for monitoring and evaluating the gender-specific impacts of the packaging norms and standards, including data collection and analysis disaggregated by gender.

Output 3.1.1 At least 2 norms and standards adopted and implemented for water packaging.

There is only one output for this outcome, so the same description applies.

Output targets	Activities
- 1 benchmark on norms and standards for water packaging - 1 consultation workshop on norms - 2 Nigerian norms/standards developed and adopted	Activity 3.1.1.1 Benchmark on norms and standards for water packaging

- 1 information workshop on norms - At least 50 people benefiting from workshop on norms (50% female) - 1 Standard Operating Procedure (SOP) elaborated	Activity 3.1.1.2 Elaboration and adoption of norms/standards
Implementation and partners	
NESREA will implement this output in close collaboration with the Standards Organisation of Nigeria (SON), and through external technical expertise. In the process of elaboration of standards, other stakeholders will be engaged as per the normal approach on these duties. In the event the standards would be made mandatory by a legal instrument, NESREA will be in charge of inspections and enforcement.	

Activity 3.1.1.1 Benchmark on norms and standards for water packaging

The first step will be to conduct a benchmark on norms and standards, as well as labelling, for water packaging for different materials and formats, both single-use and reusable. This may relate to recycled content, chemicals migration, or specific design requirements. Collaboration will be sought to the extent possible with the Global Project, which will address this but not specifically for water packaging. Through this exercise, collaboration will be established with other national normalization organizations.

Activity 3.1.1.2 Elaboration and adoption of norms/standards

Based on the above, at least 2 Nigerian norms/standards will be developed and adopted by the Standards Organization of Nigeria (SON). At least one of them will consider mandatory recycling content as per the bill proposal in progress.

The private sector and relevant organizations (e.g. the Raw Materials Research and Development Council - RMRDC) will be involved in developing those norms, and they will be informed on the technical specificities for smooth adoption. At least 2 workshops will take place to this end.

As the norms will eventually be enforced, Standard Operating Procedures (SOP) for enforcement agencies will be elaborated adopted.

Outcome 3.2 Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse).

This outcome is very relevant within the project as it will show impact on the ground in terms of reducing water sachets consumption. For this, the first step will be to compile best practices in relation to upstream business solutions for water delivery, including a gender analysis to identify successful gender-responsive and women-led circular business models.

Secondly, a key area will be to build capacity of business support organizations (BSOs), whether public or private, to incorporate gender mainstreaming and promote gender equality in their services and programs. This will involve providing gender-sensitivity training, developing gender-responsive tools and methodologies, and engaging gender experts to support the BSOs in mentoring and capacity-building efforts.

Through a call for proposals, entrepreneurs, early-stage businesses, or associations will be awarded to implement their projects, benefiting from seed funding, technical assistance, and mentorship. The selection process will incorporate gender-responsive criteria and targets to ensure equitable representation and support for women-led and gender-inclusive business models and initiatives.

The technical assistance and mentorship provided will address gender-specific barriers and challenges faced by women entrepreneurs and businesses, including access to finance, markets, networks, and resources. Partnerships with women's business associations and gender-focused organizations will be leveraged to provide tailored support and create an enabling environment for women's economic empowerment.

Output 3.2.1. Compilation of global best practices on upstream business solutions for water delivered by Y1 Q4

This output will allow acquiring existing knowledge on worldwide upstream practices, and particularly in West Africa, on business models based on reuse/refill. This will be the basis to build capacity in the next output, and guiding options for pilot projects and eco-design.

Output targets	Activities
- 1 long-list of cases - At least 10 cases thorough description	Activity 3.2.1.1 Analysis of global best practices on upstream business solutions for water delivery
Implementation and partners	
NESREA will implement this output through the engagement of external expertise on the topic. The business support organisation engaged in the next output will contribute, particularly in the replicability aspects.	

- **Activity 3.2.1.1 Analysis of global best practices on upstream business solutions for water delivery**

In order to inform existing private sector operators and entrepreneurs on best options to deliver drinking water, a benchmark will be produced, focusing on similar socioeconomic contexts, and collaborating with the Global Project to the extent possible. This will include a variety of cases ranging from reusable containers to eco-design in single-use packaging. Tentatively, they will address:

  - In-house tap water filters
  - Community-based systems e.g. water kiosks
  - Refill stations
  - Water jugs delivery
  - Reusable glass bottles
  - Reusable plastic bottles
  - Single-use plastic bottles: light-weighing, recycled content, labelling, caps design, take-back schemes.

The benchmark will start with a long-list of cases, out of which at least 10 cases will be shortlisted and developed further. Information on the step-by-step implementation, partnerships and financial aspects will be particularly addressed.

Output 3.2.2. Business support program established for innovative models based on reuse.

The business support programme for water refill initiatives will be implemented by a specific BSO, which will be selected based on a call for interest launched by NESREA. An international BSO/consultancy will be

mobilized to train the selected BSO (and others, and also including public organizations) on circular solutions within the water sector. Next, the national BSO will propose terms of reference for the selection of the pilot projects, considering the specific knowledge gained. By the end of the project, the BSO will also be responsible for drawing lessons learnt and additional business needs, including the sustainability of the business support programme.

Output targets	Activities
- 1 training programme for business support organization designed and implemented. - 1 Terms of Reference for the selection of pilot projects - 1 lesson learnt report for further support to businesses, as well as enabling policies. - 1 strategy for the sustainability of the business support programme - At least 1 project concept ready for submission to funding	Activity 3.2.2.1 Capacity building of Business Support Organisation Activity 3.2.2.2 Draft terms of reference for selection of pilot projects and provision of mentorship services Activity 3.2.2.3 Scalability and further support needs to businesses
Implementation and partners	
NESREA will implement this output and will mobilise external expertise to deliver the training the national business support organisations (BSOs), such as the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), and others to be identified. A specific national BSO will be contracted to deliver the hands-on support to the pilot projects.	

Activity 3.2.2.1 Capacity building of Business Support Organization

The project will build capacity of one existing business support organization (BSO) on water supply systems based on reuse. Once selected, a tailored training programme in the form of Trainer of Trainers (ToT) will be implemented so the organization can deliver technical assistance services to companies and entrepreneurs in Nigeria. This is not simply training, but also a tandem to develop Output 3.2.1.

Activity 3.2.2.2 Draft terms of reference for selection of pilot projects and provision of mentorship services

Based on the Output 3.2.1 and the previous activity, the BSO will draft terms of reference (ToR) for the selection of pilot business initiatives to be supported in the output below. The ToR shall have a strong gender component as women are strongly linked to the provision of water in households, and hence the supply options must consider this factor properly.

Once the pilots project selected (output below), the BSO will provide the mentorship services over a 2-year period.

Activity 3.2.2.3 Scalability and further support needs to businesses

By the end of that support to businesses, a report will draw lessons learnt for the scalability and further support to businesses. This will include aspects such as technical assistance, access to market and finance, as well as enabling policies.

In addition, the BSO will draft a sustainability strategy of the business support programme to ensure long-lasting impact of the programme. The focus will be on the replication and upgrade of the training to BSOs, so they can keep providing mentorship to entrepreneurs. For this, project concepts will be elaborated, and fundraising efforts made.

Output 3.2.3. At least 4 entrepreneurs/companies supported to create/enhance water businesses based on reuse.

This output entails the implementation of pilot projects, selected through the call, and supported by the BSO.

Output targets	Activities
- 1 call for proposals launched - 4 Progress reports submitted by beneficiaries - Gender-specific targets: o At least 30% of the businesses contributing to water reuse are women-led businesses (or employing a majority of women) o At least 30% of participants involved in the design and implementation of water businesses based on reuse are female	Activity 3.2.3.1 Call for proposals and selection of pilots for sound water delivery Activity 3.2.3.2 Implementation of pilot projects
Implementation and partners	
NESREA will implement this output through procurement. Entrepreneurs, early-stage businesses or associations will be selected and implement the pilot projects with the assistance of the selected BSO. Expert input will be sought from the Global Project.	

- **Activity 3.2.3.1 Call for proposals and selection of pilots for sound water delivery**

In order to promote the options identified in 3.2.1, a call for proposals will be launched by NESREA to fund specific initiatives. The call will be based on the draft terms of reference developed in output 3.2.2, and it will be disseminated through the partnership of output 4.1.2. Clear selection criteria will be laid down in the call, and following NESREA procurement rules.

- **Activity 3.2.3.2 Implementation of pilot projects**

The pilot's implementation will run for a maximum of 2 years. The support will comprise the following:

o Mentorship in further development of the circular business model, access to finance (in relation to output 2.3.1) and access to market. This is to be delivered by the BSO within output 2.2.1

o Seed funding for equipment investments, prototyping, market test, etc.

The beneficiaries will report every 6 months on the implementation of the actions, based on the guidance provided by NESREA, which will provide the ground for the lessons learnt report in output 3.2.2.

Output 3.2.4. At least 2 eco-design practices implemented in the water packaging sector.

This output relates particularly to existing sachet and bottled water packaging companies, with the objective to improve their packaging practices. They will benefit from external technical assistance to elaborate an eco-design plan and implement it, including leverage of funding.

Output targets	Activities
- Eco-design improvement plans for at least 2 companies - Implementation of selected measures, including company's investment - Gender-specific targets: At least 1 of the eco-design improvement plans is led by women or with 40% women's participation	Activity 3.2.4.1 Technical assistance to water packed companies Activity 3.2.4.2 Implementation of eco-design practices by water packed companies
Implementation and partners	

NESREA will implement this output through external technical expertise on eco-design and resource-efficiency. Expert input will be sought from the Global Project.

Activity 3.2.4.1 Technical assistance to water packed companies

Based on the previous outputs, and particularly Output 3.2.1. on the benchmark, at least 2 interested water companies will receive further technical assistance through the business support organization to assess their packaging practices and elaborate improvement plans. The plans will consider several options such as light weighing, lids design, labels, or take-back schemes. This will entail visits and interviews with managers and personnel of the company. Prior to that, a call for interest will be published to select the companies.

Activity 3.2.4.2 Implementation of eco-design practices by water packed companies

The investment to implement the eco-design plan shall come from the companies themselves, but support in mobilizing funding will be provided through the output 2.3.1.

Component 4. Advocacy and awareness raising

This component will involve a wide variety of stakeholders. It will particularly target consumers in a thorough way, including sociological research and targeted communication actions. A multi-stakeholder roundtable will be set up to oversee the project implementation, provide feedback to results and plans, and share knowledge and experiences beyond the project itself. In order to ensure the project long-term sustainability, a strategy will be conceived and validated by this roundtable.

Figure 9. Structure of Component 4

1.Enabling regulatory and policy environment to develop solutions for accessible drinking water	2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design	3 Promoting circular solutions through pilots	**4 Advocacy and Awareness Raising**	5 National and Program-level Coordination, Knowledge Management and Communication
Outcome 4.1. Knowledge sharing and learning activities developed to support awareness-raising, upscaling.				
Output 4.1.1. Communication campaign on sound drinking water practices designed by Y3 implemented by Y5.				
4.1.1.1 Sociological research on consumers' behaviour 4.1.1.2. Design and implementation of the communication campaign				
Output 4.1.2. Multi-stakeholder roundtable on "less plastic in water" established by Y1 and at least 4 meetings organized.				
4.1.2.1 Establishment of the multi-stakeholder roundtable "less plastic on water" 4.1.2.2 "Less plastic on water" roundtable meetings				
Outcome 4.2. A strategy for upscaling lessons learned, achievements, and barriers at the national level.				
Output 4.2.1. Roadmap for circular systems in the water sector adopted by Y5.				
4.2.1.1 Elaboration of the roadmap for circular systems in the water sector				

Outcome 4.1. Knowledge sharing and learning activities developed to support awareness-raising, upscaling.

This outcome will be achieved through a science-based awareness campaign and a multi-stakeholder roundtable. Both activities will allow for disseminating knowledge and concrete impact of water reuse business models, while also incorporating gender-specific perspectives and promoting gender equality and social inclusion.

The awareness campaign will be designed to reach diverse target audiences, including women and marginalized groups, using gender-sensitive and culturally appropriate communication channels and

messaging. The campaign content will highlight the contributions and success stories of women entrepreneurs and leaders in the circular economy, as well as the benefits and opportunities for women's empowerment through sustainable water solutions.

The multi-stakeholder roundtable will ensure balanced representation and active participation of women, women's organizations, and gender experts. It will provide a platform for sharing experiences, best practices, and lessons learned in integrating gender considerations into circular economy initiatives and water reuse business models.

In addition to disseminating knowledge and impacts, these activities will also raise awareness about the gender-specific challenges, barriers, and inequalities faced in the water sector and related value chains. This will help shape future policies, programs, and interventions to be more gender-responsive and inclusive.

Communication materials and knowledge products developed under this outcome will incorporate gender-sensitive language, visuals, and narratives, challenging gender stereotypes and promoting positive representations of women's roles and contributions.

Furthermore, knowledge management systems will be established to capture, analyze, and disseminate gender-disaggregated data and information related to the project's impacts on gender equality and women's empowerment. This will inform ongoing learning, adaptation, and upscaling of successful gender-responsive approaches.

Monitoring and evaluation frameworks will include gender-specific indicators to measure the effectiveness of the knowledge sharing and learning activities in promoting gender equality, social inclusion, and the empowerment of women and marginalized groups in the transition towards a circular plastics economy in the water sector.

Output 4.1.1. Communication campaign on sound drinking water practices designed by Y3 implemented by Y5.

The communication campaign will be a central part of the project. In fact, it is needed to build trust on water safety regarding unpacked water, as well as advocate for responsible consumers' behavior leading to reuse of containers. This will be backed and supported by sociological research, to better understand obstacles and opportunities, and come up with the best messages and channels to reach the different segments of Nigerian society.

Output targets	Activities
- 1 sociological research framework approach - 1 report on results of research (ex-ante) - At least 1,000 respondents to surveys - 1 communication campaign designed and implemented - At least 50 Behaviour and Social Change interventions - At least 1 million people reached by Behaviour and Social Change interventions - 1 report on results of research (ex-post) - Gender-specific targets: o At least 20% of recommendations in the Behaviour and Social change strategy specifically target gender aspects	Activity 4.1.1.1 Sociological research on consumers' behaviour Activity 4.1.1.2. Design and implementation of the communication campaign

○ By Y5, at least 50% of women and men in targeted communities (in selected states) have increased awareness about the health risks associated with single-use water sachets. ○ By Y5, at least 40% of women and men in the target communities have adopted alternative safe drinking water practices. ○ By Y5, at least 60% of women and men in targeted communities (in selected states) have participated in the communication campaign activities	
Implementation and partners	
NESREA will deliver this output through two contracts. The first one will entail a university or research centre specialised on sociological and environmental research, to be identified at inception phase. The second one will be done through procurement to engage a media/communication agency to elaborate the communication campaign and materials.	

Activity 4.1.1.1 Sociological research on consumers' behaviour

In order to design the communication campaign, sociological research will be conducted to find out key drivers and barriers for consumers in relation to drinking water consumption. In order to prepare this, a research framework will be elaborated, considering similar, scientific research in relation to water and plastic packaging.

This will touch upon different issues such as packaging options, perceptions, available information and needs. There will be two survey phases: ex-ante and ex-post). Hence, the research aims not only aims to explore obstacles and opportunities to be tackles but the communication campaign, but also the impact of campaign in terms of changes in perceptions and practices.

Activity 4.1.1.2. Design and implementation of the communication campaign

The communication campaign will be designed targeting all consumers but differentiating by groups (e.g. women, youth, rural communities, etc.), and hence messages and channels will be tailored. Specific "sample" groups will be chosen and monitored, in line with the activity above on sociological research. A liaison will be created with Component 3, so circular business models can be promoted, and also existing businesses will be encouraged to promote the campaign through their products (e.g. labelling).

Output 4.1.2. Multi-stakeholder roundtable on "less plastic in water" established by Y1 and at least 4 meetings organized.

The public-private roundtable will oversee the project implementation, receive up to date information on project implementation and upcoming activities, and will be able to influence specific approaches. Likewise, the roundtable will be a sharing point for all stakeholders, where different initiatives will be shared. This will be the basis to produce a long-lasting strategy through the next outcome.

Output targets	Activities
- Identification of at least 30 potential members of the roundtable - At least 20 invitation letters to join the roundtable - At least 4 meetings reports - Gender-specific targets: At least 40% of women participating in multi-stakeholder roundtable	Activity 4.1.2.1 Establishment of the multi-stakeholder roundtable "less plastic on water" Activity 4.1.2.2 "Less plastic on water" roundtable meetings
Implementation and partners	
NESREA will implement this output engaging with relevant stakeholders, to be shortlisted at the inception phase	

Activity 4.1.2.1 Establishment of the multi-stakeholder roundtable “less plastic on water”

This consultation roundtable will comprise governmental and non-governmental organizations concerned by the project issue. Led and convened by NESREA, it will meet at least once per year and will contribute to the project activities conception and implementation. It will facilitate networking and knowledge-sharing opportunities to encourage collaboration and innovation.

Potential members will be identified and invited to join. This will build on existing partnerships, particularly those within the water and (plastic) waste sectors, adding key stakeholders from the water packaging perspective.

Activity 4.1.2.2 “Less plastic on water” roundtable meetings

The roundtable will meet at least once per year, starting in year 2. It will be the occasion to present project progress, consult on ongoing activities and guide upcoming ones. It will also serve to disseminate business and entrepreneurship opportunities. The meetings will be chaired by NESREA, and members will be invited to present their flagship initiatives in relation to the project. Meeting reports will be produces and widely disseminated, beyond the roundtable member.

Outcome 4.2. A strategy for upscaling lessons learned, achievements, and barriers at the national level.

By the end of the project, a long-term strategy/roadmap will be drafted, building on lessons learned through the project components and remaining obstacles. This process will involve:

- * Conducting a gender analysis of the project's implementation, achievements, and barriers, highlighting gender-specific lessons, challenges, and opportunities.
- * Consulting with women's organizations, gender experts, and stakeholders representing diverse genders and social groups to gather their perspectives, experiences, and recommendations.

The strategy/roadmap will incorporate gender-responsive measures, such as:

- * Appointing responsibilities and accountability mechanisms to ensure gender mainstreaming and the promotion of gender equality across all stakeholders and implementation phases.
- * Identifying gender-specific means of implementation, including capacity-building programs, resource allocation, and partnerships with gender-focused organizations.
- * Exploring potential funding sources and financing mechanisms that prioritize gender-responsive and socially inclusive initiatives.
- * Establishing monitoring and evaluation frameworks that utilize gender-disaggregated data and indicators to track progress on gender equality and women's empowerment objectives.

The communication and knowledge management approaches will ensure that gender-specific lessons, achievements, and barriers are effectively documented, disseminated, and shared among stakeholders. This will involve:

- * Developing gender-sensitive communication materials and knowledge products that challenge gender stereotypes and promote positive representations of women's roles and contributions.

- ◦ Utilizing gender-responsive communication channels and platforms that are accessible and inclusive for diverse gender and social groups.
- ◦ Capturing and disseminating gender-disaggregated data and success stories that highlight the impacts and benefits of gender-responsive approaches in the transition towards a circular plastics economy in the water sector.

The strategy will be discussed and adopted by the multi-stakeholder roundtable, ensuring balanced representation and active participation of women, women's organizations, and gender experts. This will facilitate the ownership, acceptance and commitment of various stakeholders to implement the inclusive and gender-responsive measures outlined in the strategy.

Output 4.2.1. Roadmap for circular systems in the water sector adopted by Y5.

There is only one output for this outcome, so the same description applies.

Output targets	Activities
- 1st draft roadmap - Final version of the roadmap - 1 layman report - At least 1 project concept with identified potential donors/financing sources	Activity 4.2.1.1 Elaboration and adoption of the roadmap for circular systems in the water sector
Implementation and partners	
NESREA will implement this output supported by external strategic expertise.	

Activity 4.2.1.1 Elaboration of the roadmap for circular systems in the water sector

Based on lessons learnt of all outputs, a comprehensive roadmap will be drafted and include both governmental and non-governmental actions, in line with the project components. It will be submitted to the roundtable for discussion and adoption. A layman report will be produced for wide dissemination, capturing project achievements and next steps. The PMU will develop to the extent possible project proposals ready to be submitted to donors and financing institutions, to ensure project follow-up.

Component 5. National and Program-level Coordination, Knowledge Management and Communication

The aim of Component 5 is to ensure effective coordination, management and the dissemination of results and best practices during the project lifespan, whilst ensuring longer term sustainability of the project actions, as well as ensuring close coordination with the IP Plastics Global Project.

Figure 10. Structure of Component 5

1.Enabling regulatory and policy environment to develop solutions for accessible drinking water	2. Public-private investments to ensure access to clean drinking water through circular solutions and eco-design	3 Promoting circular solutions through pilots	4 Advocacy and Awareness Raising	**5 National and Program-level Coordination, Knowledge Management and Communication**
Outcome 5.1. Effective National and Global Coordination including active participation and contribution to Global Project meetings and working groups.				
Output 5.1.1. National Level Coordination mechanism established and implemented.				
5.1.1.1 Establishment of the PMU				

5.1.1.2 Establishment of the project offices 5.1.1.3 Inception Phase, with detailed 1st year workplan and budget, TORs, elaborated pilot concepts and draft sub-contracts for all consultancies and partners adopted 5.1.1.4 Steering Committee Meetings with TORs for the PSC adopted at the 1st PSC
Output 5.1.2. Coordination and active participation and contribution to Global Project meetings and working groups.
5.1.2.1 Attendance/presentations at 4 IP Annual Conferences 5.1.2.2 Contribute/attend IP working groups and relevant online meetings (to be further elaborated at the Inception Phase) 5.1.2.3 Review and inputs to IP Global Project reports (to be defined at the Inception Phase)
Outcome 5.2. Increased National and Global knowledge and awareness on Circular Solutions to Single Use Plastic Packaging Pollution from the Food and Beverage Sector.
Output 5.2.1. Communication and Knowledge Management strategy developed and implemented for the project developed and implemented using IW: LEARN platform, Global Project and other relevant platforms.
5.2.1.1. Develop a gender-responsive communication and knowledge management workplan that outlines strategies for inclusive and gender-sensitive content development, dissemination channels, and stakeholder engagement, ensuring equal representation and contributions from women experts and contributors. 5.2.1.2. Identify and document gender-responsive best practices, project results, and success stories related to women's empowerment and the promotion of gender equality in addressing plastic pollution and implementing circular solutions, and share these through relevant platforms (e.g. IW:LEARN). 5.2.1.3. Develop knowledge management articles and reports that incorporate gender analysis, showcase the differentiated impacts and roles of women and men, and highlight the importance of gender-responsive approaches in transitioning towards a circular economy in the food and beverage sector. 5.2.1.4. Ensure gender-balanced representation and active participation of the project team, including women experts and contributors, in events, and facilitate the sharing of lessons learned, challenges, and successful strategies for mainstreaming gender and promoting women's empowerment in the context of the project.
Output 5.2.2. Contribution to the Global Project Knowledge Management and Communication established.
5.2.2.1 Alignment with the Global Project Communication and knowledge management strategy during Inception phase and identify key knowledge products/best practices etc. to be shared 5.2.2.2 Production and sharing of key knowledge and communication products (in English) to the Global Project Web-site 5.2.2.3 Attendance to virtual meetings and other activities to be defined in cooperation with the Global Project

Outcome 5.1. Effective National and Global Coordination including active participation and contribution to Global Project meetings and working groups.

NESREA, as the executing agency, will ensure overall project management and coordination of the project, with all key stakeholders and other ministries. In doing so, NESREA will:

- Establish a gender-balanced project management team and decision-making structures, ensuring equal representation and leadership roles for women.
- Integrate gender expertise and gender focal points within the project coordination mechanisms to provide guidance and oversight on gender mainstreaming.
- Develop and implement a gender mainstreaming strategy and action plan for the project, outlining specific measures, responsibilities, and resource allocations for promoting gender equality and social inclusion across all project activities.

NESREA will also ensure active participation and engagement with the IP Plastics Global project, which aims to support all 15 child projects with technical guidance and facilitate the dissemination and exchange of best practices. In this context, NESREA will:

- Actively contribute to Global Project meetings and working groups by sharing lessons learned, achievements, and challenges related to gender-responsive approaches and the promotion of gender equality within the project.

- * Advocate for the integration of gender perspectives and the inclusion of gender experts within the Global Project's technical guidance and knowledge-sharing activities.
- * Collaborate with other child projects to exchange best practices, tools, and methodologies for mainstreaming gender and promoting women's empowerment in circular economy initiatives.

Communication and knowledge management activities will be carried out in a gender-responsive and inclusive manner, ensuring that:

- * Communication materials and knowledge products are developed using gender-sensitive language, visuals, and narratives, challenging gender stereotypes and promoting positive representations of women's roles and contributions.
- * Gender-disaggregated data and success stories highlighting the impacts and benefits of gender-responsive approaches are captured, analyzed, and disseminated through various communication channels and platforms.
- * Communication and knowledge-sharing platforms are accessible and inclusive, reaching diverse gender and social groups and providing opportunities for their active participation and engagement.
- * Partnerships and collaborations with women's organizations, gender experts, and relevant stakeholders are established to enhance the effectiveness and inclusiveness of communication and knowledge management activities.

By mainstreaming gender and promoting inclusive communication and knowledge management, NESREA will ensure that the national and global coordination efforts contribute to advancing gender equality and women's empowerment within the project and the broader circular economy landscape.

Output 5.1.1. National Level Coordination mechanism established and implemented.

The detailed implementation arrangements are detailed separately (and included in Appendix 5), along with the Terms of Reference of the Project Management Unit and Steering Committee (see Appendix 3f).

In summary, the following activities will be carried out to ensure national level coordination:

- * NESREA will establish the Project Management Unit (see Institutional Arrangements), led by the Project Manager and ensure the effective day-to-day management of the project
- * The project offices will be established at NESREA premises, as part of the NESREA co-financing
- * During the first six months of the project, an Inception Phase will be conducted in order to further elaborate and define the work-plan, budget revision (if required), the drafting of execution elements, sub-contracts and consultancies and elaboration of pilot activities. This will result in an Inception Report, to be presented and adopted at the Inception Workshop/1st Steering Committee meeting
- * Steering Committee established and regular meetings undertaken.

Output targets	Activities
- PMU operational by Y1 Q1	5.1.1.1 Establishment of the PMU 5.1.1.2 Establishment of the project offices

- 1st PSC/Inception Meeting adopts PSC TOR, Inception Report, workplan and budget by Y1 Q2 - Minimum 5 PSC meetings and all members participate in at least 75% of the PSC meetings - Gender-specific target: Minimum 40% of PMU and Steering Committee members are women	5.1.1.3 Inception Phase, with detailed 1st year workplan and budget, TORs, elaborated pilot concepts and draft sub-contracts for all consultancies and partners adopted 5.1.1.4 Steering Committee Meetings with TORs for the PSC adopted at the 1st PSC
Implementation and partners	
Project PMU with the support of NESREA	

Output 5.1.2. Coordination and active participation and contribution to Global Project meetings and working groups.

The Global Project's objective is to optimize the delivery of a cohesive program across 15 countries to enhance replicability and address global barriers to reducing plastic pollution in the food and beverage sector. As such various mechanisms are envisaged to ensure regular coordination with each of the National Child Projects. These include the participation of relevant staff and consultants to in-person and virtual meetings and the contribution and review of documents, with the overall aim to ensure alignment and exchange across the national projects.

Key activities will include the following:

- Participation and contribution of inputs (to documents, agenda, etc) in the Annual Conference, starting in 2025, in order to share and exchange experiences, knowledge and best practices. Representation from government and the Project Management Unit have been budgeted.
- Attendance and contributions to at least 2 virtual learning sessions on relevant topics per month, in order to apply IP assets to national planning and adapt these to the local national context.
- Participation and contributions to working groups organized by the Global Project, in particular the Advisory Committee, Private Sector Working Group and Technical Working Group meetings.

Output targets	Activities
- Key project staff participate in min of 4 IP Annual Conferences and key events - PMU participate in min 75% of relevant virtual events and working groups - PMU and national experts provide contributions to min 75% of relevant Global Project reports - Gender-specific indicator: Minimum 40% of PMU and Steering Committee member women	5.1.2.1 Attendance/presentations at 4 IP Annual Conferences 5.1.2.2 Contribute/attend IP working groups and relevant online meetings (to be further elaborated at the Inception Phase) 5.1.2.3 Review and inputs to IP Global Project reports (to be defined at the Inception Phase)
Implementation and partners	
Project PMU with the support of NESREA, with inputs as relevant from other partners	

Outcome 5.2. Increased National and Global knowledge and awareness on Circular Solutions to Single Use Plastic Packaging Pollution from the Food and Beverage Sector.

Output 5.2.1. Communication and Knowledge Management strategy developed and implemented for the project developed and implemented using IW: LEARN platform, Global Project and other relevant platforms.

- • Establish a project website and/or knowledge platform (if relevant), alignment with the Global Project KM platform
- • Further define and implement the project communication strategy and ensure alignment with the Global Project Communication Strategy
- • Compile and disseminate project knowledge products via various platforms
- • Documented project results disseminated through established global initiatives (including IW:LEARN).

Output targets	Activities
- Communication and KM detailed workplan (including platform/web-site) adopted at Inception Meeting/1st PSC by Y1 Q2 - Min 75% of all stakeholders contribute to and disseminate KM products - Min 10 best practices/project results/news shared with IW:LEARN - Min 20 knowledge management articles/reports etc. - Min 2 IW:LEARN events attended by project team - Gender-specific target: At least 40 % of the team developing and implementing the strategy are women experts and contributors	5.2.1.1. Develop a gender-responsive communication and knowledge management workplan that outlines strategies for inclusive and gender-sensitive content development, dissemination channels, and stakeholder engagement, ensuring equal representation and contributions from women experts and contributors. 5.2.1.2. Identify and document gender-responsive best practices, project results, and success stories related to women's empowerment and the promotion of gender equality in addressing plastic pollution and implementing circular solutions, and share these through relevant platforms (e.g. IW:LEARN) 5.2.1.3. Develop knowledge management articles and reports that incorporate gender analysis, showcase the differentiated impacts and roles of women and men, and highlight the importance of gender-responsive approaches in transitioning towards a circular economy in the food and beverage sector. 5.2.1.4. Ensure gender-balanced representation and active participation of the project team, including women experts and contributors, in events, and facilitate the sharing of lessons learned, challenges, and successful strategies for mainstreaming gender and promoting women's empowerment in the context of the project.
Implementation and partners	
Project PMU with the support of NESREA, with inputs as relevant from other partners	

Output 5.2.2. Contribution to the Global Project Knowledge Management and Communication established.

The Global Project includes Component 3 on Knowledge Management and Communication which aims to integrate across all participating child projects for program coherence and enable synergies through Knowledge Management and Coordination actions. These will foster the sharing of project lessons and experiences among and beyond the National Projects. It will also promote coherence of indicators and implement a cohesive communications strategy to drive the uptake of solutions beyond the National Child Projects, and amplify impact and behaviour change to a broader audience. The following milestones are planned:

- ∗ Integrated communications strategy: website, branding materials, communication products, and stakeholder engagement events developed.
- ∗ Integrated knowledge management strategy: Annual conferences, knowledge sharing sessions, webinars, capacity development activities organized

- * Best practices and success stories from all projects of the Program and other knowledge products developed

The Global Project will be responsible for program-level Knowledge Management and Communications. In addition to accessing the knowledge shared and generated by the Global Project for uptake at the country level, the following activities will be undertaken to ensure the project fully contributes to the Program's Knowledge Management and Communications Strategy:

- * Ensure alignment with the IP branding guidelines and the communications strategy.
- * A designated project staff from PMU will be responsible for liaising with the Global Project on communications matters related to the Program.
- * Sharing of key knowledge and communication products (in English) to the Global Project Web-site; if needed, translate Global Project content for national partners and stakeholders to increase uptake.
- * Provide updates and inputs to the project webpage (to be hosted on the Program website).
- * Share challenges and successes with the broader IP (through virtual meetings and online forum) and the contribution to the broader community via knowledge sharing with relevant external fora (e.g. participation in events, panels, conferences, contributing to external websites, the Global Project, etc.).

Output targets	Activities
- Review/contribute to Global Project Knowledge Management and Communication strategy and workplan - Participate in Annual conferences, knowledge sharing sessions, webinars, capacity development activities - Gender sensitive best practices and success stories prepared in English - Gender-specific indicator: At least 40% of contributors to the Global Project Knowledge Management and Communication efforts are women	5.2.2.1 Alignment with the Global Project Communication and knowledge management strategy during Inception phase and identify key knowledge products/best practices etc to be shared 5.2.2.2 Production and sharing of key knowledge and communication products (in English) to the Global Project Web-site 5.2.2.3 Attendance to virtual meetings and other activities to be defined in cooperation with the Global Project
Implementation and partners	
Project PMU with the support of NESREA, with inputs as relevant from other partners	

Monitoring and Evaluation

In addition to the national monitoring and evaluation of the project, as described in Appendix 4, the project will contribute to the Global Projects M&E and reporting. The M&E framework has been designed to ensure alignment with the wider program's guidance. This includes following the Global Project's methodologies on the core indicators.

The project will share key reports (PIR, Results Framework Tracking, etc) to the Global Project, and provide inputs to the Global Projects M&E reporting including the Annual Report and Mid-term Evaluation and Terminal Evaluation if appropriate.

The project will also coordinate with the Global Project on M&E requirements as needed, including incorporation and tracking of program-level indicators.

The project is also committed to following the Private Sector Engagement Guidelines to ensure good partnerships and an aligned vision.

Sustainability, Uptake and Replicability

The project has been designed to build upon partners and NESREA's work to create a strengthened overall framework towards reducing the consumption of single-use plastic water sachets, while ensuring accessible and safe drinking water. A number of these activities are truly innovative and have not been implemented previously in Nigeria, so the aim is to ensure a mechanism is in place for the scale-up and replication of good practices during the lifespan of the project. In summary this includes:

- Overall implementation arrangements ensure that all project results will be embedded in the future workplan of NESREA's beyond the project's lifespan, and most importantly through the establishment of an inter-governmental process, that policy reforms will be fully integrated into all sectors. This will ensure that expected project results will endure past project end and ensure the level of ownership and commitment among government and other stakeholders.
    - Through the revision and updating of policies and laws and the updated national plans so that there is a robust policy framework developed and endorsed to ensure a future transition to a circular plastics economy (related to single-use plastic water sachets), building also upon best-practices and experiences across the IP Plastics program
    - Capacity building is a key aspect for the Nigeria project as identified during the PPG phase and a consolidated training project will be implemented at all levels of the project, including capacity building and guidelines relation to policy reforms (output 1.3.2) and to the business support program for innovative models based on reuse (output 3.2.2) and the participation and exchange with the Global Project capacity building activities (4.1)
- Specific focus is also given to ensure sustainable private sector partnerships through a partnership mechanism (Component 2), which will include a legal text with NAFDEC on EPR (output 2.1.1) and a long-term business plan on EPR. Funding will be raised for at least 3 business models to be implemented for circular solutions to enable eco-design practices by the water packaging sector (output 2.3.1). These activities will also be assessed in terms of lessons learned and replication potential beyond the life-span of the project
    - Component 3 - promoting circular solutions through pilots which will result in at least 6 entrepreneurs/businesses pilots implemented to roll out sustainable alternatives (including reuse) and at least 1 follow up concept for replication developed for potential funding.

Finally, a knowledge management and communication strategy will be implemented to ensure results of the project are made widely available to all stakeholders and awareness raising campaigns are implemented from the government to local level. This includes achieving at least 1 million people reached by Behaviour and Social Change interventions (outcome 4.1) to advocate for increased awareness and social change beyond the life-span of the project.

Global Environmental Benefits

Addressing plastics in water sector, which has a major contribution to plastic pollution, has several global environmental benefits, including:

- Ecosystems and habitats preservation: Plastic pollution, including microplastics, can disrupt ecosystems, affecting everything from plankton to predators. Plastic waste can accumulate in natural habitats, altering them and making them inhospitable for many species. Minimizing plastic waste helps maintain the balance of ecosystems.

- Preservation of biodiversity: Plastic pollution can harm all types of biodiversity by disrupting food chains and habitats, provoking harm (e.g. suffocation) or potentially affecting organisms due to chemical additives in plastic. In addition, reducing plastic production and consumption can lead to lower levels of harmful chemicals released into the environment. This helps protect soil, water, and air quality, reducing the risk of contamination for both wildlife and humans.

- Reduced greenhouse gas emissions: Plastic production and incineration contribute to greenhouse gas emissions. By reducing plastic usage and properly managing plastic waste, emissions will be reduced and hence contributing to climate change mitigation.

- Landfill space conservation: Plastic waste occupies valuable landfill space, and many plastics take hundreds of years to decompose. Reducing plastic usage lessens the burden on landfills.

- Less resource depletion: Plastic production requires significant amounts of fossil fuels and natural resources. Cutting down on plastic usage conserves these resources for future generations.

- Preservation of scenic beauty: Plastic pollution detracts from the beauty of natural landscapes, coastlines, and urban areas.

Overall, reducing plastic pollution is essential for safeguarding the environment, promoting sustainability, and ensuring a healthier planet for current and future generations.

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this child project, including framework and mechanisms for coordination, governance, financial management and procurement. This should include consideration for linking with other relevant initiatives at country-level (if a country child project) or regional/global level (for coordination platform child project). If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

The implementation arrangements of the project (see Appendix 5) and their relationship to the Global Project are presented in Figure 11 and the flow of funds diagram is presented in Figure 12.

Figure 11. Implementation Arrangements

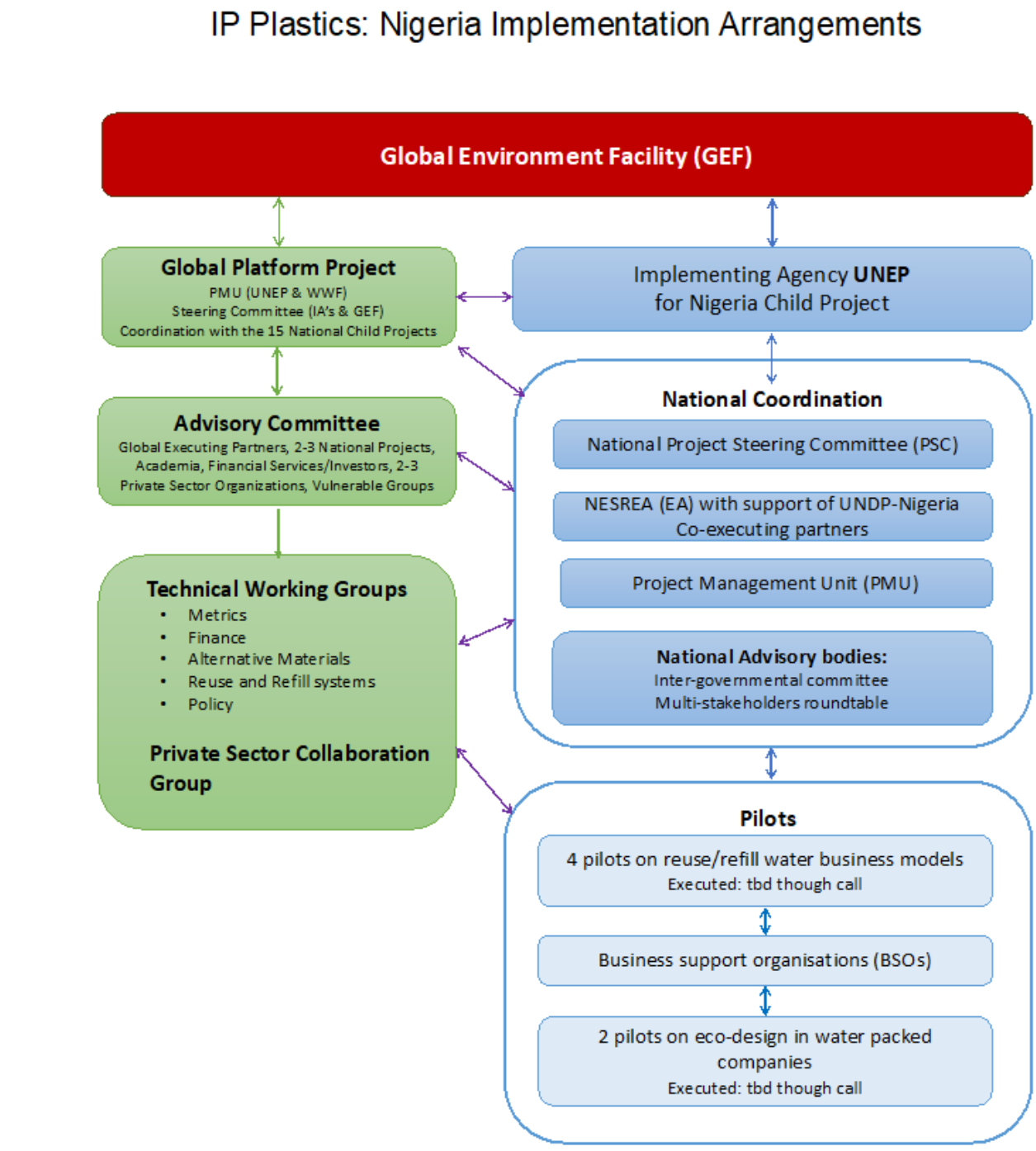
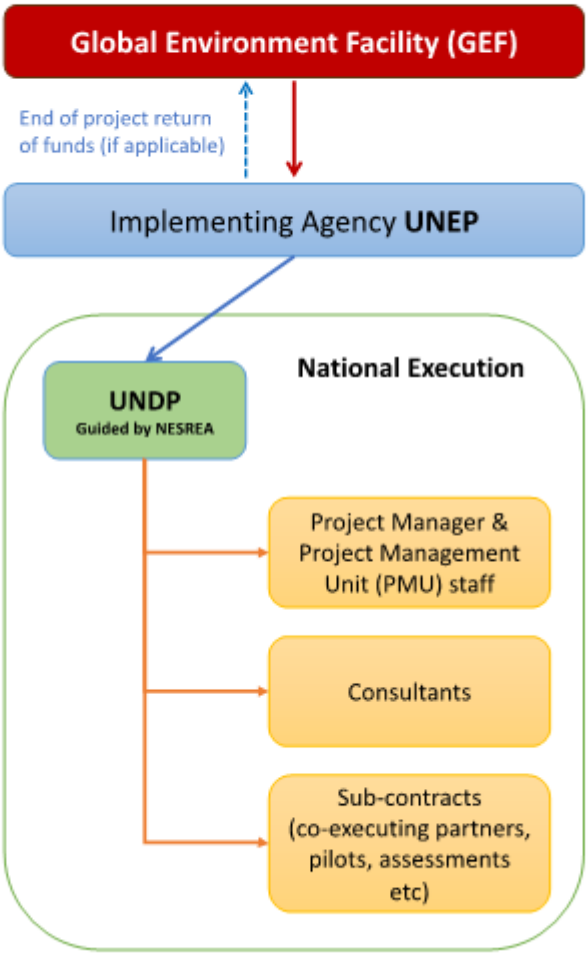


Figure 12. Flow of Funds Diagram

Nigeria Flow of Funds

To be included in CEO Endorsement B. CHILD Project Description -Institutional Arrangement and Coordination with Ongoing Initiatives and Project.



The Implementing Agency (IA) of this project is the GEF unit in the Ecosystems Division of the United Nations Environment Program (UNEP). The National Environmental Standards and Regulations Enforcement Agency (NESREA) will be the co-Executing Agency for the project and will constitute and host the Project Management Unit (PMU) which will coordinate, manage and be responsible for the project on a day-to-day basis. NESREA will be supported by UNDP-Nigeria as co-Executing Agency in the financial management of the project, based on their experience in GEF projects and ability to ensure smooth financial, audits and reporting management in line with GEF and UNEP requirements. UNDP will issue all payments under the GEF IP Plastics Nigeria project, based on individual approval requests from NESREA. Monthly accounts of payments processed by UNDP will be shared with NESREA to enable the project team to compile the quarterly financial reporting to UNEP, together with the quarterly progress reporting. UNDP will charge for every payment processed a fixed amount as reflected in the UPL (Universal Price List). This should enable UNDP Country office to make the necessary HR provisions to facility the smooth support of the project.

The Project Management Unit (PMU) will be established by the EA at the start of the project implementation and will be led by the Project Manager, who will manage the project on a day-today basis and will include the following staff (see also Appendix 3f: TORs for key project staff):

- **Project Manager/Coordinator** – recruited full time for the duration of the project to oversee the project execution and prepare relevant reports including the Inception Phase reports, PIR, quarterly financing reports, annual workplans and who will serve as secretary for the Annual Project Steering Committee (PSC)
- **Project Technical Officer** – A senior level technical expert on the issue of plastics pollution from water sachets in Nigeria, recruited full time, to support the technical execution of the project and to lead on the technical design of the pilots and all related reports
- **Finance Assistant** to be responsible for the financial management and reporting of the project
- **Administrative Assistant** to support the PMU in all logistical day to day aspects and organization of meetings

Additional full/time or part time support (to be agreed in the Inception Phase)

- National Communication Officer
- Gender expert

The fulfilment of the project activities will require further expert input through following consultants, whose profile and duties are described in the Appendix 3f:

- * Policy expert Component
- * 3 State plans experts
- * 2 Guidelines and capacity building experts
- * EPR expert (registry and business plan)
- * Fiscal policy expert
- * Financing expert
- * Norms and standards expert
- * Sociological research expert
- * Eco-design expert

The PMU will serve as the secretary to the Project Steering Committee (PSC) and will be accountable to the PSC meeting which is organized annually to ensure the delivery and quality of activities and outputs and to approve budget.

The PMU will be hosted at NESREA premises in Abuja as part of the co-financing of the project to ensure cost-effectiveness of the project execution and to ensure close coordination with NESREA staff who will support the project oversight and provide legal and technical support as appropriate.

The project will work closely with the Global Platform Project under the IP Plastics Program as well as IW:LEARN to participate in regional and global workshops to ensure that the results of this project are available to the wider IW community of projects. This Project is designed to be informed by ongoing global and regional processes. In the implementation stage, the project will align its efforts with other international instruments and mechanisms that are related to addressing plastic pollution. See Appendix 5 for full details of initiatives

Will the GEF Agency play an execution role on this child project?

If so, please describe that role here and the justification.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

The project will work closely with the Global Platform Project under the IP Plastics Program as well as IW:LEARN to participate in regional and global workshops to ensure that the results of this project are available to the wider IW community of projects. This Project is designed to be informed by ongoing global and regional processes. In the implementation stage, the project will align its efforts with other international instruments and mechanisms that are related to addressing plastic pollution. See Appendix 5 for full details of initiatives including the following plastics initiative's:

- Sustainable Plastic Value Chains Project in Nigeria (2022 - 2025).
- GEF 11049: Circular and POPs-free Plastics in Africa (EEE Sector)
- Lekki waste-free project (2023 – 2025)
- Nigeria National Plastic Action Partnership (NPAP)

Given the project is focussed on the reduction of single-use plastic water sachets, while ensuring accessible and safe drinking water, it will coordinate closely with several water related initiatives including:

- The Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene (SURWASH) Program (2021 – 2027).
- Supporting the state water management agencies to implement the City Blueprint Framework (CBF) Approach for Sustainable Water Management in Nigerian Cities (2023 – 2027)
- Establishment of Regional Hydrological Training Centre in Kaduna (2023 – 2027)
- Provision of Safe, Climate Resilient, equitable water supply services in nexus and protracted emergencies (2023 – 2027)
- Providing safe drinking water for pupils in schools and caregivers in healthcare facilities (2023 -2027)

Promoting Systems and Structures for Sustainable Operation and Maintenance of Water Facilities (2023 -2027)

Table On Core Indicators

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	1566509	1868657	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	1,566,509	1,868,657		
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting	2024	2025		
Duration of accounting	10	10		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 7 Shared water ecosystems under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Guinea Current	Guinea Current		
Count	1	1	0	0

Indicator 7.1 Level of Transboundary Diagonostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Guinea Current	1	2		

Indicator 7.4 Level of engagement in IWLEARN throgh participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)

Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
0.00	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.3 Hydrochloroflurocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
466,520.00	350,078.00		

Indicator 10 Persistent organic pollutants to air reduced

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
57.00	54.69		

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	1,470,000	45,226		
Male	1,530,000	15,435		
Total	**3,000,000**	**60,661**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Core indicator 9 corresponds to the amount of avoided residual plastic waste (subindicator 9.8) which is calculated by using the estimated amount of plastic waste generated in the country by the National Plastic Action Partnership i.e. 13,260,551 MT, of which 4,375,982 MT (18%) have been estimated to be associated to packed water (bottles and sachets), the project target. It is then estimated a total 8% reduction of waste associated to packed water due to the project intervention (particularly through outputs 2.1.1, 2.3.3 and 3.2.3).

Core indicator 6 was estimated based on sub indicator 6.7 “Emissions avoided outside AFOLU sector (direct)”. The calculation uses the estimated avoided residual plastic waste (core sub indicator 9.8) and the emission factors for the plastic waste eliminated and the avoided open burning of a percentage of that waste to calculate the GHG emissions, then multiplied by 10 years, to reflect the duration of the global project (~8 years) and an additional two years’ projected impact due to the continued impact of interventions past the end of the project lifetime. These calculations were embedded in the UNEP/WWF Calculator for Key Core Indicators for GEF Circular Solutions to Plastic Pollution IP provided during the PPG phase.

Core Indicator 7: the transboundary system impacted by the project intervention is the GCLME. The target for sub-indicator 7.3 is set at 2, reflecting anticipated reforms at national or local levels, supported by the establishment of functional Inter-Ministerial Committees.

Core indicator 10 is estimated upon the estimated avoided residual plastic waste (core subindicator 9.8) using conversion factors of the avoided open burning of a percentage of that waste.

Core Indicator 11 reflects the total people benefitting from the project. It is estimated to reach 60.660 people as direct beneficiaries, with 45,226 females and 15,435 males. The estimation has been based on the project activities across different stakeholder groups, with their scope, as it can be seen in table below. Those activities with largest reach are relating to the new circular water initiatives, where it is assumed a potential market size of 60,000 people per initiative, with 25% of them really uptaking (stronger focus will be in women buy-in, so it is considered that 75% of the uptake will be by women). More direct beneficiaries are being reached through other project activities though with a significant lower impact, however these other activities may have a potential impact in translating to indirect beneficiaries as some of these stakeholders will build capacity and knowledge which will potentially transfer to others. This relates to the policy making work under component 1, as well as the private sector financing mechanism, the work on eco-design and EPR with the water bottling companies, the multi-stakeholder roundtable and roadmap, and the communication campaign. Finally, a number of trainings will engage both public and private stakeholders.

See extra table in the CEO ER in the road map as it was not feasible to past it here.

Key Risks

	Rating	Explanation of risk and mitigation measures

CONTEXT		
Climate	Low	It is expected that the sustainable production of plastics and sound plastic waste management practices implemented through the project will lead to increased resilience against climate change impacts. The project will lead to a net reduction of GHG emissions as the mitigation effort, resulting from reduced open burning of plastics, and more reuse and recycling of plastic waste to avoid consumption of virgin plastics.
Environmental and Social	Moderate	The project will have substantial environmental benefits, in the areas of biodiversity, climate change, chemicals and waste, and shared water ecosystems under new or improved cooperative management. It will also have substantial social benefits related to gender, indigenous people, the informal sector, and the youth. However, care must be taken in the environmentally sound management of the pilots, to avoid risks of waste management and pollution, where relevant safeguard assessments and management plans will be necessary for E&S risk mitigation before pilots or re-use schemes are implemented
Political and Governance	Low	There is unprecedented attention on plastic pollution due to the ongoing Intergovernmental Negotiating Committee meetings to develop an international legally binding instrument on plastic pollution. The project will commence when the global instrument is in place and is highly relevant from the political aspect. The project is also inline with current policy developments of NESREA
INNOVATION		
Institutional and Policy	Low	National Policy reforms regarding plastics are already underway and are a priority for the country. The project will develop strong policies, regulatory and legal frameworks, and specific instruments to address plastic pollution from upstream and midstream issues. This is in the interest of most governments which consider plastics as a top agenda in their environmental issues and the developing circular economy. This will also contribute substantially to SDG 12 Responsible Consumption and Production, SDG 14 Life below Water, SDG 13 Climate Action, and SDG 11 Sustainable Cities and Communities, etc.
Technological	Moderate	The project will address eco design for water packaging and improved design and sector standards for circular products to provide clean drinking water. This will require strong national and international partnerships and to build upon best-practices
Financial and Business Model	Moderate	The project will develop fiscal policies and incentives, establish Public-private partnerships (PPP) and establish private sector investment mechanism to support circular solutions for clean drinking water, all of which will require full engagement of authorities and private sector, with expert support.
EXECUTION		

Capacity	Low	NESREA is fully committed as lead executing agency and is leading the work on plastic management and circular economy in Nigeria. NESREA will be supported by UNDP-Nigeria to ensure smooth and effective financial management and reporting inline with GEF and UNEP requirements. There is also a need for strong engagement of the Federal Ministry and Water Resources, which is the case, and other key stakeholders
Fiduciary	Moderate	NESREA have successfully managed other GEF and other donor projects in the country, and with UNDP-Nigeria thus have the experience to ensure financial management of resources
Stakeholder	Low	Stakeholder engagement was high during the PPG phase of the project, and commitment was expressed by project partners to fully support the project execution
Other		
Overall Risk Rating	Moderate	The project will lead to substantial environmental benefits and future plastic reduction. However, relevant safeguard assessments and management plans will be necessary for E&S risk mitigation before pilots or re-use schemes are implemented. Care will be taken to adequate engage with Project Affected Persons, particularly, the informal plastic waste management players (viz. collectors, sorters, aggregators and recyclers) to ensure their livelihoods are not impacted by the transition to a CE plastic management system. Conflict assessment and analysis will be conducted and a clear risk management plan with mitigation measures and budgets is identified based on the assessment during the Inception Phase.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Explain how the proposed interventions are aligned with GEF- 8 programming strategies, including the specific integrated program priorities, and country and regional priorities, Describe how these country strategies and plans relate to the multilateral environmental agreements, such as through NDCs, NBSAPs, etc.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how.

(max. 500 words, approximately 1 page)

The project is fully in line with the objectives of the GEF-8 Circular Solutions to Plastic Pollution Integrated Program which intends to catalyze circular economy approaches to reduce plastic production, consumption, and waste, investing in national and city-level initiatives that will help governments create enabling policy environments for circular solutions and through private sector and engagement of multiple stakeholders in the food and beverage sector will implement activities towards elimination, recycling, reuse of plastics and create conditions by strengthening collaboration and coordination along the plastic value chain, creating harmonized visions, fostering knowledge sharing, and increasing investment in innovative solutions.

The project is fully aligned with the approach of the GEF-8 Integrated Program which takes a circular economy approach through interventions across the entire plastic value chain to tackle plastic pollution. In

light of the ongoing Intergovernmental Negotiating Committee process to develop an international legally binding instrument on plastic pollution, including in the marine environment, this project presents a unique opportunity to align with and leverage the outcome of the negotiation to create a harmonized and systems-based approach to address plastic pollution at a meaningful scale from a full life cycle perspective.

The project contributes principally to International Waters and two STAR focal areas (biodiversity and climate change mitigation) and deliver co-benefits as follows:

- **Chemicals and Waste** - Chemicals and additives in plastic products pose health and environmental hazards when products become waste and they are improperly disposed of, or enter the recycling loop. The program will explore alternative solutions to plastic packaging that contain fewer chemicals and additives.

- **International Waters** –plastic waste has significant impacts on marine and freshwater ecosystems and ecosystem services. It is a transboundary issue, as plastics that start on land are polluted into rivers and oceans. The program will support goals under the IW focal area by reducing the amount of plastic pollution entering transboundary marine and freshwater ecosystems.

- **Biodiversity** - marine, freshwater, and terrestrial biodiversity are all threatened by plastic pollution. In the ocean, more than 2,000 species are impacted, with negative effects such as entanglement, ingestion, smothering, and chemical pollution. Birds and terrestrial species face similar threats. By promoting circular systems, the program aims to protect and preserve the habitats and ecosystems that support biodiversity.

- **Climate Change Mitigation** – plastic waste production and incineration release significant amounts of greenhouse gas emissions, which this program aims to address through upstream and midstream interventions.

There is a strong link between circular solutions to plastic pollution and the global biodiversity framework. Indeed, the global biodiversity framework is set to protect and restore biodiversity reducing negative impacts of human activities on nature including plastic-induced pollution. Circular solutions to plastic pollution promoting approaches to reduce the amount of plastic waste generated by the environment by adopting circular solutions will help protect biodiversity and preserve the health and diversity of ecosystems and species around the world. Therefore, circular solutions to plastic pollution are an important component of the global biodiversity framework and are essential to achieving a sustainable future. Specifically, the biodiversity effects of plastic pollution are associated with entanglement, toxic ingestion, suffocation, starvation, and general debilitation. These deadly effects are evident across marine, freshwater, and terrestrial ecosystems. Therefore, the actions will result in biodiversity benefits helping reduce the rates of loss and degradation of globally important ecosystems and biodiversity, reducing threats to freshwater and coastal aquatic ecosystems, and improving ecosystem health in coastal areas, due to improved circular practices which will reduce the leakage of plastic into inland and oceans ecosystems. Therefore, these benefits will contribute directly to the goals and targets of the Kunming-Montreal Global Biodiversity Framework particularly Target 7 Reduce Pollution to Levels That Are Not Harmful to Biodiversity.

At the national level, the project is fully in line and aims to strengthen national policies related to the consumption of single-use plastic water sachets in Nigeria, while ensuring accessible and safe drinking water including the National Policy on Solid Waste Management, the National Action Plan (NAP) on Marine Plastic Litter, and the Ban of Single-use plastics within departments and agencies of the Federal Ministry of Environment, among others.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the child Project Description (Section B).

Yes

1) Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?

Yes

If the child project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

2) Does the child project's results framework or logical framework include gender-sensitive indicators?

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes has been clearly articulated in the Child Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement**.**

Yes

Select what role civil society will play in the Project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body ; Yes

Executor or co-executor;

Other (Please explain)

Private Sector

Will there be private sector engagement in the Child project?

Yes

And if so, has its role been described and justified in section B "Child project description"?

Yes

Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed child project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided. This includes budget for linking with and participation in knowledge exchange activities organized through the coordination platform.

Yes

Socio-economic Benefits

We confirm that the child project design has considered socio-economic benefits to be delivered by the project and these have been clearly described in the Project Description and will be monitored and reported on during project implementation (at MTR and TER).

There are several and remarkable socio-economic benefits related to the fight against plastic pollution, as well as promoting packaging circularity in water sector. Among others, the project will contribute to:

- Cost savings: Governments spend significant resources on waste management, cleaning up plastic pollution and dealing with its consequences, such as damage to infrastructure and biodiversity. By preventing pollution at its source, these costs can be minimized, allowing funds to be allocated elsewhere.

- Job creation: Initiatives aimed at reducing plastic pollution, such as reuse systems and the development of alternative materials, create employment opportunities in various sectors, including waste management, research and development, and manufacturing. The project intends to work towards the formalisation of water entrepreneurs and community-based initiatives including marginalised groups, promoting sound packaging,

and thus contributing to a just transition. This is particularly important for informal waste pickers, who shall be involved and integrated in formal reuse systems.

- Innovation and entrepreneurship: Addressing plastic pollution fosters innovation in sustainable materials, water distribution, and waste management technologies. This stimulates economic growth by creating new markets for responsible products and services. This is the case when promoting reuse.

- Enhanced reputation: Businesses and regions that actively combat plastic pollution often enjoy improved reputations, attracting environmentally conscious consumers and investors. This can lead to increased market share, higher revenues, and greater investment inflows.

- Tourism promotion: Cleaner environments resulting from reduced plastic pollution can attract more tourists, boosting local economies reliant on tourism. Beaches, parks, and natural attractions are more appealing when free from litter and plastic debris.

- Public health improvement: Decreased plastic pollution means less plastic waste in waterways and food chains, reducing the risk of ingestion by humans and animals. This helps mitigate health issues associated with plastic contamination, such as endocrine disruption and chemical toxicity. Plastic waste can also become a vector of infectious diseases.

- Community empowerment: Engaging communities in plastic pollution reduction initiatives promotes a sense of ownership and responsibility for the environment. This will be done particularly through the multi-stakeholder's roundtable. This strengthens social cohesion and encourages collective action on other pressing issues. In addition, the project gender strategy will ensure gender mainstreaming and specific activities in the project, such as training and creation of businesses.

- Resource conservation: Minimizing plastic usage encourages the efficient use of resources, including fossil fuels used in plastic production. This supports sustainability efforts and reduces reliance on finite resources, contributing to long-term economic stability.

ANNEX A: FINANCING TABLES

GEF Financing Table

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
UNEP	GET	Nigeria	Biodiversity	BD STAR Allocation: IPs	Grant	891,931.00	80,274.00	972,205.00
UNEP	GET	Nigeria	Climate Change	CC STAR Allocation: IPs	Grant	891,931.00	80,274.00	972,205.00
UNEP	GET	Nigeria	Biodiversity	BD IP Matching Incentives	Grant	297,310.00	26,758.00	324,068.00

UNEP	GET	Nigeria	Climate Change	CC IP Matching Incentives	Grant	297,310.00	26,758.00	324,068.00
UNEP	GET	Nigeria	International Waters	International Waters: IW IP Contributions	Grant	3,587,725.00	322,895.00	3,910,620.00
Total GEF Resources ($)						**5,966,207.00**	**536,959.00**	**6,503,166.00**

Project Preparation Grant (PPG)

Was a Project Preparation Grant requested? true

PPG Amount ($) 150000

PPG Agency Fee ($) 13500

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	PPG($)	Agency Fee($)	Total PPG Funding($)
UNEP	GET	Nigeria	Biodiversity	BD STAR Allocation: IPs	25,500.00	2,295.00	27,795.00
UNEP	GET	Nigeria	Climate Change	CC STAR Allocation: IPs	25,500.00	2,295.00	27,795.00
UNEP	GET	Nigeria	Biodiversity	BD IP Matching Incentives	8,500.00	765.00	9,265.00
UNEP	GET	Nigeria	Climate Change	CC IP Matching Incentives	8,500.00	765.00	9,265.00
UNEP	GET	Nigeria	International Waters	International Waters: IW IP Contributions	82,000.00	7,380.00	89,380.00
Total PPG Amount ($)					**150,000.00**	**13,500.00**	**163,500.00**

Please provide Justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
UNEP	GET	Nigeria	Biodiversity	BD STAR Allocation	1,000,000.00
UNEP	GET	Nigeria	Climate Change	CC STAR Allocation	1,000,000.00
Total GEF Resources					**2,000,000.00**

Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
Plastics IP	GET	5,966,207.00	40983561
Total Project Cost		**5,966,207.00**	**40,983,561.00**

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	NESREA	In-kind	Recurrent expenditures	7480946
Recipient Country Government	NESREA CITEO	In-kind	Recurrent expenditures	8059749
Recipient Country Government	NESREA CITEO	Grant	Investment mobilized	2686583
Donor Agency	European Union	In-kind	Recurrent expenditures	4326000
Recipient Country Government	Federal Ministry of Environment	In-kind	Recurrent expenditures	5680000
Recipient Country Government	Standards Organisation of Nigeria (SON)	In-kind	Recurrent expenditures	200000
Private Sector	NBC and the Coca-Cola Company	In-kind	Recurrent expenditures	5740000
Private Sector	Seven-Up Bottling Company Ltd.	In-kind	Recurrent expenditures	5810283
Civil Society Organization	Food and Beverage Recycling Alliance (FBRA)	In-kind	Recurrent expenditures	1000000
Total Co-financing				**40,983,561.00**

Please describe the investment mobilized portion of the co-financing

Whilst originally co-financing was solely under NESREA, as a result of various consultations with key public and private sector, NESREA has secured additional co-financing letters from key partners, including the European Union, Nigeria Federal Ministry of

Environment, Standards Organization of Nigeria and the private sector – Nigerian Bottling Company Ltd (a member of Coca Cola), based on their planned activities on the reduction, reuse and recycling of plastic water bottles and sachets over the period of the project execution (2025-2030).

NESREA, provides two co-financing letters: one related to salaries for project support and representation, and another one to complement the EPR activities in the project. Other institutions, i.e. the Federal Ministry of Environment and SON provides salaries as co-financing for project support and representation, and in the case of SON particularly for the work to be done in norms and standards. Private organisations i.e. Coca-Cola, 7Up and FBRA provides co-financing in terms of initiatives to improve waste management, particularly collection and recycling, which complements the upstream project intervention, as well as on public awareness. In the case of the EU Delegation, the co-financing (4,000,000 EUR) supports the project business support program in terms of just transition and circular economy approaches.

ANNEX B: ENDORSEMENT

GEF Agency(ies) Certification

GEF Agency Coordinator	Date	Project Contact Person	Telephone	Email
GEF Agency Coordinator	6/27/2024	Victoria Luque Panadero	2540207621	victoria.luque@un.org
Project Coordinator	6/27/2024	Isabelle Vanderbeck	12027254201	isabelle.vanderbeck@un.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Please attach the Operational Focal Point endorsement letter(s) with this template.

Name of GEF OFP	Position	Ministry	Date (MM/DD/YYYY)
Stanley Jonah	Director	Federal Ministry of Environment	4/11/2023

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document. For the Integrated Programs' global/regional coordination child project, please include the program-wide results framework, inclusive of results specific to the coordination child project. For any country child project, please ensure that relevant program level indicators are included.

Outcome/Output	Indicators	Baseline	Targets and monitoring milestones	Means of verification	Risks and Assumptions	UNEP MTS outcomes	SDG target(s)
Objective: Reduce the consumption of single-use plastic water sachets, while ensuring accessible and safe drinking water	GEBs: 6.7 Greenhouse Gas Emissions Avoided Outside AFOLU sector (direct). Total estimated Greenhouse Gas Emissions avoided across the project lifetime:'	Few policies in place and enforced to tackle upstream and midstream stages of water supply and related packaging, which would result in avoided residual plastic waste and related	Indicator 6.7: 1,868,657 metric ton of CO2e Indicator 9.8: 350,078 metric tons Indicator 10: 54.69 gram of toxic equivalent gTEQ Indicator 11: 60,660 (F: 45,226 M: 15,435)	GEF Core Indicator reports (Inception, mid-point and end of project) Mid Term and Final Evaluation reports; PIR reports, quarterly reports; websites and public awareness resources; publications	Assumptions: - Continued support from city and national governments to the project - Improved knowledge on plastic material flow, environmental and health impacts of plastic pollution	2025 outcome 3b, 3c Direct outcomes : 3.2, 3.3, 3.5, 3.6, 3.7, 3.8, 3.9, 3.12, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a

	9.8 Avoided residual plastic waste 10 Persistent organic pollutants to air reduced. Total estimated Persistent Organic Pollutants to Air Reduced across the project lifetime 11 People benefiting from GEF-financed investments disaggregated by sex (count)	reduction of GHG and POPs. There are few and limited water business models based on reuse/zero packaging. Needs for technical assistance, training and knowledge exchange, access to market and access to finance Limited and insufficient collection, recycling and dumping of plastic packaging			and associated economic and social costs - Improved coordination on policy, finance, technology transfer, etc. at global, regional, national and city level Risks: - Policies are developed but not fully implemented or enforced - Failure of private sector to participate in the project, with low engagement from the large corporations and small medium-sized enterprises - The inter-city network cannot be sustained after the end of the project		
Component 1. Enabling regulatory and policy environment to develop solutions for accessible drinking water							
Outcome 1.1 Agreed regulatory frameworks, policies, and guidelines in place to transition towards a circular plastics economy in the water sector.	- Number of policies adopted, including e.g. bans on single-use plastic, extended producer responsibility, plastic taxes, incentives for sustainable design and use of alternative materials. - Number of plastic waste prevention measures (e.g., guidelines, action plans, etc.) integrated into broader policy frameworks/national plans.	14 legal/policy documents, among which: Federal policies exist for the packed water sector, but not connected to EPR system, nor for the packaging Green public procurement in relation to SUPs adopted by Federal Ministry of Environment, but lack of implementation and capacity. Provision of deposit-refund scheme for beverage bottles in law, but not implemented There is a bill in progress requiring minimum 30% recycled content in beverage packaging	- 3 selected policies developed, improved or prepared for consideration/submission by Y3 - 2 technical/feasibility studies conducted in support of policy decision by Y3	PSC meeting reports PIRs Progress reports Mid-term evaluation Policy gap analysis report	Ministerial commitment to endorse and implement policy recommendations **Assumptions:** - Adequate buy-in and support from city governments **Risks:** - City authorities fail to mobilise private sector partners during policy development and implementation - Lack of industry or key corporations' engagement - Relevant policies blocked by stakeholders that will be affected or lobbyists	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.7 12.a
Output 1.1.1 State of regulations and	- Policy gap Analysis	- Lack of coordinated gap analysis of	- 1 policy gap analysis produced by Y1 Q3	- Policy gap analysis report	**Risks:** - Policies are developed but not	3.2, 3.3, 3.5, 3.6,	6.3, 6a, 6.c

policies on water packaging assessed, including recommendations to inform the public policy making process by YR1 Q2.	- Number of policies and regulations prioritised for further action - Number of consultation meetings with federal authorities organised Gender specific indicator: - Level of consideration of gender perspectives and needs in the analysis - Percentage of women and men consulted and engaged in the analysis process	policies and needs related to water packaging and reuse business models - Insufficient knowledge on water supply practices based on reuse/zero packaging - There are gender disparities in decision-making positions across various sectors, including those related to water, sanitation, and the environment. According to the National Bureau of Statistics (NBS) and the UNDP, women's representation in decision-making roles in Nigeria is relatively low. For example, Women's representation in local government councils, which play a crucial role in managing water and sanitation services, was only 6.7% as of 2021 and SDG 5.5 is 4.5 % Share of seats in parliament held by women) for 2021	- 5 good practices analysed in benchmark by Y1 Q3 Gender specific target: - Gender perspectives and needs fully integrated into the analysis At least 40% women's participation in consultations and analysis process	- Consultation attendance records disaggregated by gender - Gender analysis report - Final analysis report with gender components	fully implemented or enforced - City authorities fail to mobilise private sector partners during policy development and implementation Risks Limited access to gender-disaggregated data Resistance to incorporating gender perspectives Limited capacity on gender mainstreaming Assumptions Availability of gender experts Commitment to gender equality Collaboration with women's organizations	3.8, 3.9, 3.13	12.5 12.7 12.a
Output 1.1.2 A comprehensive public policy framework and minimum 3 new/updated policies to transition to a circular plastics economy in the	- Number of policies adopted, including e.g. bans on single-use plastic, extended producer responsibility, plastic taxes, incentives for	- 14 legal documents, among which: - Federal policies exist for the packed water sector, but not	- 3 selected policies developed, improved or prepared for consideration/submission by Y3 - 2 technical/feasibility studies conducted in support of policy decision by Y3	- Policy briefs - Consultation reports - Documented evidence to show policies developed or approved at the city level (such as draft policy documents,	**Assumptions:** - Adequate buy-in and support from city governments - Commitment to gender equality Collaboration with women's organizations	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13,	6.3, 6a, 6.c 12.5 12.7 12.a

water sector developed	sustainable design and use of alternative materials. - No of intergovernmental consultation meetings - Number and percentage of women and men actively participating in consultations, workshops, events, training and committee meetings; at least 40% of each gender represented Gender specific indicator: - - Level of integration of gender perspectives in the policy framework - Percentage of women and men engaged in the policy development process - Percentage of sustainable policy instruments that have a specific gender approach and aim for gender impacts.	connected to EPR system, nor for the packaging - Green public procurement in relation to SUPs adopted by Federal Ministry of Environment, but lack of implementation and capacity. - Provision of deposit-refund scheme for beverage bottles in law, but not implemented - There is a bill in progress requiring minimum 30% recycled content in beverage packaging	- 5 Inter-governmental consultation meetings held by Y5 - Gender perspectives and needs fully mainstreamed in the policy framework - At least 40% women's participation in the policy development process - 100% of guidelines have gender inclusiveness integrated	press release, news, web stories) - Summary of results and learning from policy development - Technical/feasibility studies - - Gender analysis report - - Consultation reports - Draft policy framework with gender components	Support from relevant stakeholders **Risks:** - City authorities fail to mobilise private sector partners during policy development and implementation - Lack of industry or key corporations' engagement - Relevant policies blocked by stakeholders that will be affected or lobbyists - Limited gender expertise in the water and plastics sectors - Resistance to incorporating gender perspectives - Lack of gender-disaggregated data Assumptions:		
Outcome 1.2 At least 3 national, sub-national, or city-level plans and strategies to reduce pollution from water sachets based on circular solutions, incorporating a gender-sensitive and inclusive approach are developed.	- Number of plastic waste prevention measures (e.g., guidelines, action plans, etc.) integrated into broader policy frameworks/national plans.	- 2 existing sub-national plans (Lagos and Abia States), but loopholes in implementation.	- At least 3 new or updated sub-national plans and strategies developed and adopted incorporating a gender-sensitive and inclusive approach are developed by YR 3 Q1.	- Sub-national plans and strategies - PSC Meeting reports - PIRs and quarterly progress reports -	Ministerial commitment to endorse and implement policy recommendations **Assumptions:** - Adequate buy-in and support from city governments **Risks:** - City authorities fail to mobilise private sector partners during policy development and implementation - Lack of industry or key corporations' engagement - Relevant policies blocked by stakeholders that will be affected or lobbyists	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a

Output 1.2.1 At least 3 new or updated sub-national plans and strategies developed and adopted incorporating a gender-sensitive and inclusive approach are developed by YR 3 Q1	- Number of specific gender-sensitive actions included in plans - Number of advisory board meetings Gender specific indicator: - Percentage of women and men engaged in the planning process - Level of consideration of gender-specific needs and concerns in the plans/strategies	- 2 existing sub-national plans (Lagos and Abia States), but loopholes in implementation. - 2 coordination structures for the implementation of UNIDO project on plastics is States of Lagos and Abuja	- 1 review of existing plans and strategies at sub-national level by Y3 - 3 new/enhanced sub-national plans drafted and endorsed by Y4 - 3 advisory boards in place by Y4, with at least 2 meetings per year - 3 implementation plans by Y5 - At least 40% women's participation in the planning process - Gender-specific needs and concerns fully addressed in the plans/strategies	- Sub-national plans and strategies - Advisory board meeting reports - Consultation reports - Gender analysis report - Approved plans/strategies with gender components	**Assumptions:** - Adequate buy-in and support from city governments - Availability of gender experts - Collaboration with women's organizations **Risks:** - City authorities fail to mobilise private sector partners during policy development and implementation - Lack of industry or key corporations' engagement - Relevant policies blocked by stakeholders that will be affected or lobbyists Risks: - Lack of gender-disaggregated data - Limited capacity on gender mainstreaming	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Outcome 1.3 Strengthened capacity and institutional frameworks to implement/enforce policies and plans for circular solutions to plastic pollution in 6 Nigerian States	- Number of inter-governmental meeting - Number of stakeholders (disaggregated by occupation, age group, etc.) benefiting from capacity building (disaggregated by topic)	No inter-governmental committee in place to address plastic waste pollution No federal training workshops on the topic	- 5 Inter-governmental committee meetings - At least 100 people benefiting from federal capacity building workshops	- Inter-governmental meeting reports and recommendations - PSC Meeting reports - PIRs and quarterly progress reports -	-High level convening of intergovernmental meetings to ensure commitment of all relevant ministries and body (and participants) have decision making authority -Decisions of the meeting are then incorporated into relevant ministries	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Output 1.3.1 Inter-governmental committee established and operational by Y1 Q3	- Number of Terms of Reference - Number of inter-governmental meeting -	- No inter-governmental committee in place to address plastic waste pollution	- 1 Terms of Reference for inter-governmental committee by Y1 Q3 - 1 meeting per year, starting in Y1 Q3	- Terms of reference - Meetings reports - Guidelines reports - Federal authorities training programme	-High level convening of intergovernmental meetings to ensure commitment of all relevant ministries and body (and participants) have decision making authority -Decisions of the meeting are then incorporated into relevant ministries	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Output 1.3.2. Capacity building program developed and minimum 3 training workshops conducted	- Number of guidelines - Number of training workshops - Number of stakeholders (disaggregated by occupation, age group, etc.)	- 2 (Guidelines for Inspection and Requirements for Packaged Water Facility- NAFDAC;	- 2 guidelines drafted to fulfil the identified capacity building needs by Y2 - 1 training programme prepared,	- Training attendance records - Training evaluation reports	-Appropriate expertise secured for the development of the raining programme - Need to ensure the most appropriate participants all attend (both in	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a

	benefiting from capacity building (disaggregated by topic) - Percentage of women and men trained - Level of knowledge and skills gained by women and men	and EPR guidelines - NESREA) - No existing training programme and workshops	including 3 training workshops by Y4 - At least 100 people benefiting from federal capacity building workshops - At least 50% women participants in the training workshops - Equal knowledge and skills gained by women and men		terms of organization and level of authority - Appropriate women participants are included in training		
Component 2	**Public-private investments to ensure access to clean drinking water through circular solutions and eco-design**						
Outcome 2.1 Public-private partnerships (PPP) developed as a mechanism to help governments leverage private support and investment	- Number of reported commitments agreed and/or policy revisions endorsed and under process of implementation - Number of plastic waste prevention measures (e.g., guidelines, action plans, etc.) integrated into broader policy frameworks/national plans. - Number of stakeholders (disaggregated by occupation, age group, etc.) benefiting from capacity building (disaggregated by topic) - Amount of virgin fossil-based plastic waste avoided (MT) through upstream/midstream solutions pilots (disaggregated by type of solution – elimination and reduction, reuse/refill, alternative materials)	- No existing legal arrangement between NESREA and NAFDAC to enforce EPR - 1 NESREA-EPR initial business plan - No EPR training programme in place	- 1 legal text adopted on NAFDAC's role in implementing EPR - 1 updated business plan of NESREA-EPR system - At least 50 people benefiting from EPR training workshops - 175,039 MT virgin fossil-based plastic waste avoided	- Final adopted legal text on NAFDAC's role in implementing EPR - PSC Meeting reports - PIRs and quarterly progress reports -Mid-term evaluation	- NAFDAC's full engagement towards adoption of legal text - Need to ensure the most appropriate participants all attend (both in terms of organization and level of authority	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Output 2.1.1 Public-private partnerships (PPP) established and operationalized by YR2 Q2	- Number of formal agreements with NAFDAC on role in EPR - Number of electronic registry of	- No existing legal arrangement between NESREA and NAFDAC to enforce EPR	- 1 legal text adopted on NAFDAC's role in implementing EPR, coordinated with NESREA, by Y2 Q2 - 1 electronic registry of producers established by Y3	- Official gazette - Website (hosting the registry) - Guidelines report - Business plan	- NAFDAC's full engagement towards adoption of legal text - Capacity/expertise secured to develop EPR business plan	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a

	producers established - Number of operational guidelines - Number of business plan of NESREA-EPR system	- No existing registry of producers - 1 NESREA-EPR initial business plan - No existing annual reports of EPR funds expenditure	- 1 operational guideline produced for the registry by Y3 - 1 updated business plan of NESREA-EPR system - 4 NESREA annual reports on the use of funds, starting in Y2	- Annual reports			
Output 2.1.2 EPR capacity building programme established and at least 4 training workshops conducted	- Training program and number of training workshops on EPR - Percentage of women trained - Percentage of women conducting the training workshops - Number of respondents to the survey conducted to assess impacts of the information workshop on EPR (disaggregated by gender, occupation, etc.) Percentage of women participating in the EPR Working Group	- No EPR training programme in place	- 1 training programme conceived by Y1 Q4 - At least 4 training workshops conducted until project end - At least 50 people benefiting from EPR training workshops - At least 30% of women reached by the information workshop on EPR - At least 25% of women conducting the information workshop on EPR - At least 30% of women participating in the EPR Working Group	- 1 training programme report - Workshops reports, including presentations - Workshop attendance records - Survey results - EPR Working Group record - Stakeholder group participation records	- - Capacity/expertise secured to develop EPR training program (as is innovative approach) - - Need to ensure the most appropriate participants all attend (both in terms of organization and level of authority - Assumption: Women are interested in participating in EPR initiatives - Risk: Limited awareness or understanding of EPR concepts	**3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13**	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Outcome 2.2 Fiscal policies and incentives developed to support circular solutions for clean drinking water	- Number of policies adopted, including e.g. bans on single-use plastic, extended producer responsibility, plastic taxes, incentives for sustainable design and use of alternative materials.	No fiscal policies identified	- At least 1 fiscal policy drafted	- Final fiscal policy - PSC Meeting reports - PIRs and quarterly progress reports - Mid-term evaluation	Full governmental engagement/commitment to draft and move to adopt fiscal policy	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5 12.6 12.7 12.a
Output 2.2.1 Status of fiscal incentives in the water, packaging and entrepreneurship assessed sectors by Y2 Q4	- Number of fiscal policies assessed	- Need for clarity on the role fiscal policies to boost water delivery based on reuse/zero packaging	- 1 fiscal policies assessment report	- Fiscal policies assessment report	Relevant experts secured	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 2.2.2 Fiscal policies and incentives developed to	- Number of new/updated fiscal policies	No fiscal policies identified	- At least 1 fiscal policy drafted	- Policy draft	Full governmental engagement/commitment to draft and	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1

support circular solutions for clean drinking water					move to adopt fiscal policy		11.6 12.5, 12.6, 12.7, 12.a
Outcome 2.3 Private investment mobilized for circular solutions to enable eco-design practices by the water packaging sector.	- Number of financing dossiers are submitted - USD leveraged, including innovative finance resulting from the IP's work, and co-finance	- No funding dossiers submitted - 0 USD leveraged	- At least 3 business models funding dossiers submitted - At least 500,000 USD leveraged	- Business models report - Business registration records - PSC Meeting reports - PIRs and quarterly progress reports - Mid-term evaluation	Relevant expertise on Nigeria private sector to support activities Engagement/willingness of private sector	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 2.3.1 Private sector investment mechanism established, including 12 roundtable meetings and 3 investments on circular business models.	- Number of public and private finance institutions involved - Number of meetings with financing institutions - Number of business models developed - Number of business models that achieve access to funding - Amount of USD leveraged for circular business models - Women-led circular businesses models /initiatives (or businesses/initiatives employing a majority of women)	- No mapping and assessment of public and private finance institutions - No circular business models produced in the water sector - 1 good practice on green financing sector: Sustainable Use of Natural Resources and Energy Finance (SUNREF)	- 1 mapping of public and private finance institutions - 6 bankable business models elaborated - At least 12 meetings with financing institutions - Funding raised for at least 3 business models - At least 30% of the circular businesses' models women-led businesses/initiatives (or employing a majority of women) - At least 30% of participants involved in the design and implementation of circular businesses models are female	- Business models report - Mapping of finance institutions and mechanisms - Meetings reports - Funds transferred to businesses - - Business registration records - Employment records - Participation records in design and implementation processes	Relevant expertise on Nigeria private sector to support activities Engagement/willingness of private sector	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Component 3 Promoting circular solutions through pilots							
Outcome 3.1 Framework for improved design and sector standards for circular products to provide clean drinking water in place	- Number of technical guidelines and norms produced - Number of stakeholders (disaggregated by occupation, age group, etc.) benefiting from capacity building (disaggregated by topic)	- 0 packaging norms and standards in Nigeria - 0 people benefiting from workshop on norms	- 2 Nigerian norms/standards developed and adopted - At least 50 people benefiting from workshop on norms - 205,539 MT Increased in Material Effectively Recycled	- Business models report - Business registration records - PSC Meeting reports - PIRs and quarterly progress reports - Mid-term evaluation	Engagement/willingness of Standards Organisation of Nigeria (SON) as well as private sector and relevant organisations (e.g. the Raw Materials Research and Development Council - RMRDC)	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a

	- Increase in Material Effectively Recycled (MT)						
Output 3.1.1 At least 2 norms and standards adopted and implemented for water packaging.	- Number of norms/standards developed - Number of information workshops on norms - Number of stakeholders reached by workshop on norms (disaggregated by gender (as self-assessed), occupation, etc.).	- No existing benchmark on norms and standards - 0 packaging norms and standards in Nigeria	- 1 benchmark on norms and standards for water packaging - 1 consultation workshop on norms - 2 Nigerian norms/standards developed and adopted - 1 information workshop on norms - 1 Standard Operating Procedure (SOP) elaborated	- 1 benchmark report - Standards Organisation of Nigeria website (published norms) - Workshop reports, including presentations - SOP sheet	Engagement/willingness of Standards Organisation of Nigeria (SON) as well as private sector and relevant organisations (e.g. the Raw Materials Research and Development Council - RMRDC)	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Outcome 3.2 Strengthened circular systems through innovative business models to roll out sustainable alternatives (including reuse)	- Number of business model pilots implemented, monitored and reported - Number of follow up concepts for replication - Amount of virgin fossil-based plastic waste avoided (MT) through upstream/midstream solutions pilots (disaggregated by type of solution – elimination and reduction, reuse/refill, alternative materials)	- 5 community-based, pilot projects found - No concepts for replication - (tbd) Amount of virgin fossil-based plastic waste avoided (MT)	- At least 6 entrepreneurs/businesses pilots implemented, monitored and reported - At least 1 follow up concept for replication - 175,039 MT of virgin fossil-based plastic waste avoided	- Global best practices/benchmark report - Training material and meeting reports - Entrepreneurs/companies' proposals and reports - Eco-design improvement plans - PSC Meeting reports - PIRs and quarterly progress reports - Mid-term evaluation	- Entrepreneurs/companies' are fully engaged to participate in line with guidance -Strong guidance from lead BSO	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 3.2.1 Compilation of global best practices on upstream business solutions for water delivered by Y1 Q4	- Number of cases identified - Number of cases assessed in terms or replicability	- No benchmark available - 5 community-based projects identified in Nigeria	- 1 long-list of cases - At least 10 cases thorough description	- Benchmark report	-Strong guidance from lead BSO to support NESREA	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 3.2.2 Business support program established for innovative models based on reuse	- Number of business support organisations (BSO)benefitting from training programme - Number of people (disaggregated by gender (as self-assessed), occupation,	- No specific trainings found on water packaging - 1 national BSO identified, without specific expertise in the water packaging sector	- 1 training programme for business support organisation designed and implemented. - 1 Terms of Reference for the selection of pilot projects - 1 lessons learnt report for further support to businesses, as well as enabling policies.	- 1 training programme concept - 1 training programme report, including presentations - 1 Terms of Reference for call for projects - 1 lessons learnt report	-Strong guidance from lead BSO to support NESREA	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a

	etc.). benefitting from BSO training - Number of key recommendations for further support to businesses		- 1 strategy for the sustainability of the business support programme - At least 1 project concept ready for submission to funding				
Output 3.2.3 At least 4 entrepreneurs/companies supported to create/enhance water businesses based on reuse	- Number of proposals received - Number of proposals granted - Amount of USD granted to beneficiaries - Amount of virgin fossil-based plastic waste avoided (metric ton) through new water businesses based on reuse. Gender-specific indicator - Women-led water businesses based on reuse (or businesses employing a majority of women)	- No specific call for proposals found specifically to promote reuse/refil models in the water sector - 5 community-based projects identified in Nigeria	- 1 call for proposals launched - 4 progress reports submitted by beneficiaries - At least 30% of the businesses contributing to water reuse are women-led businesses (or employing a majority of women) - At least 30% of participants involved in the design and implementation of water businesses based on reuse are female	- Call for proposals - Progress reports - Business registration records - Employment records - Participation records in design and implementation processes	-Strong guidance from lead BSO to support NESREA - Entrepreneurs/companies' are fully engaged to participate in line with guidance	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 3.2.4 At least 2 eco-design practices implemented in the water packaging sector.	- Number of participating companies producing eco-design improvement plans - Number of measures implemented - Amount of USD invested by companies in eco-design meaures - Amount of virgin fossil-based plastic waste avoided (metric ton) per water packaging eco-design practice. Gender-specific indicator: Women-led / women participation on eco-design improvement plans	- No sectors-specific eco-design programme found - 1 eco-design practice found (50% rPET is bottles)	- Eco-design improvement plans for at least 2 companies - Implementation of selected measures, including company's investment - At least 1 of the eco-design improvement plans is led by women or with 40% women's participation	- Improvement plans - Implementation reports - Eco-design improvement plan documentation - Participation records	-Strong guidance from lead BSO to support NESREA - Entrepreneurs/companies' are fully engaged to participate in line with guidance	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Component 4 Advocacy and awareness raising							

Outcome 4.1 Knowledge sharing and learning activities developed to support awareness-raising, upscaling	- Number of Behaviour and Social Change interventions implemented (disaggregated by type: awareness raising, capacity building, educational, and communications activities, etc.) - Number of stakeholders (disaggregated by occupation, age group, etc.) reached by Behaviour and Social Change interventions (disaggregated by type: awareness raising, capacity building, educational, etc.) - Number of respondents (disaggregated by occupation, age, etc.) to surveys conducted to assess impacts of the Behaviour and Social Change interventions (disaggregated by gender, age group, occupation, etc.)	- All Behaviour and Social Change interventions at 0	- At least 1,000 respondents to surveys - At least 50 Behaviour and Social Change interventions - At least 1 million people reached by Behaviour and Social Change interventions	- Meetings reports, including presentations - Roundtable attendance records - Scientific papers - Communication materials - PSC Meeting reports - PIRs and quarterly progress reports Mid-term evaluation	Media/communication agency engaged with appropriate experience	3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 4.1.1 Communication campaign on sound drinking water practices designed by Y3 implemented by Y5.	- Number of reports on sociological research in relation to water and related packaging - Number of respondents (disaggregated by occupation, age, etc.) to sociological surveys to assess perceptions, practices and impacts of the Behavior and Social Change	- No sociological research found on water and packaging aspects - Communication campaigns are scattered and do not focus especifically on water sachets	- 1 sociological research framework approach - 1 report on results of research (ex-ante) - 1 communication campaign designed - 1 report on results of research (ex-post) - At least 20% of recommendations in the Behaviour and Social change strategy specifically target gender aspects	- Sociological research reports - Scientific papers - Communication materials	Media/communication agency engaged with appropriate experience	3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a

	interventions (disaggregated by gender, age group, occupation, etc.) - Number of Behavior and Social Change interventions implemented (disaggregated by type: awareness raising, capacity building, educational, campaign activities, communications, etc.) - Number of stakeholders (disaggregated by occupation, age group, etc.) reached by Behavior and Social Change interventions (disaggregated by type: awareness raising, capacity building, educational, etc.) *Gender-specific indicator:* - *Percentage of recommendations in the Behavior and Social change strategy that specifically target gender aspects* - Percentage of recommendations in the Behavior and Social change strategy that specifically target gender aspects. - Percentage of women and men with increased awareness about the health risks associated with drinking water practices. - Percentage of women and men who have adopted		- By Y5, at least 50% of women and men in targeted communities (in selected states) have increased awareness about the health risks associated with single-use water sachets. - By Y5, at least 40% of women and men in the target communities (in selected states) have adopted alternative safe drinking water practices. - By Y5, at least 60% of women and men in targeted communities (in selected states) have participated in the communication campaign activities				

	alternative safe drinking water practices. - Percentage of women and men who have participated in the communication campaign activities.						
Output 4.1.2 Multi-stakeholder roundtable on "less plastic in water" established and at least 4 meetings organized.	- Number of roundtable meetings - Number of permanent members of the roundtable (disaggregated by occupation, age group, etc.) - Number of stakeholders (disaggregated by occupation, age group, etc.) participating at roundtable meetings Gender-specific indicator: Percentage of women participating in multi-stakeholder roundtable	- 2 existing related structures: Nigeria Plastic Action Partnership (NPAP) and UNIDO project steering committee (Study on Plastics Value-Chain in Nigeria), but not focusing on water sachets.	- Identification of at least 30 potential members of the roundtable - At least 20 invitation letters to join the roundtable - At least 4 meetings reports - At least 40% of women participating in roundtable multi-stakeholder	- Meetings reports, including presentations - - Roundtable attendance records - Participant lists disaggregated by gender	- Full participation of key stakeholders in roundtables - -Assumption: Women are willing and able to participate in roundtables - Risk: Cultural or social barriers may limit women's participation	3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Outcome 4.2 A strategy for upscaling lessons learned, achievements, and barriers at the national level	- Number of reported commitments agreed and/or policy revisions endorsed and under process of implementation - Number of follow up concepts for replication	- No reported commitments - No follow up concepts	- At least 1 joint commitment (roadmap) - At least 1 project concept with identified potential donors/financing sources	- Roadmap for circular systems in the water sector - PSC Meeting reports - PIRs and quarterly progress reports - Mid-term evaluation	- Roadmap endorsed by the Multi-stakeholder roundtable - Broader PSC members ensure roadmap adopted and steps towards implementation are ensured	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Output 4.2.1 Roadmap for circular systems in the water sector adopted by Y5.	- Number of actions included in the national roadmap - Number of people reached out by the layman report	- No strategy related to water-packaging found	- 1st draft roadmap - Final version of the roadmap - 1 layman report - At least 1 project concept with identified potential donors/financing sources	- Roadmap reports - Layman report - Project concept	- -Roadmap endorsed by the Multi-stakeholder roundtable - -Broader PSC members ensure roadmap adopted and steps towards implementation are ensured	3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a
Component 5 National and Program-level Coordination, Knowledge Management and Communication							
Outcome 5.1. Effective National and Global Coordination including active participation and	- Number of Ministries, private sector and key stakeholder groups participate in	No national coordination for the project until it starts its Inception Phase	- 90% of key Ministries, private sector and key stakeholder groups participate in project coordination	- PSC Reports GP Annual Conference, working group and other Reports	- Commitment from PSC and Ministries	3.5[1] 3.11	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6,

contribution to Global Project meetings and working groups	project coordination - National priorities/experience contributes to Global Project reports and meetings		- 90% of GP reports reflect National priorities and experience				12.7, 12.a
Output 5.1.1 National Level Coordination mechanism established and implemented.	- PMU operational - Inception phase report with detailed workplan, budget and institutional arrangements - Members of the PSC participate actively in the meetings throughout project implementation Gender-specific indicator: % of PMU and Steering Committee member are women	No national coordination for the project. To build upon EA infrastructure	- PMU operational by Y1 Q1 - 1st PSC/Inception Meeting adopts PSC TOR, Inception Report, workplan and budget by Y1 Q2 - Minimum 5 PSC meetings and all members participate in at least 75% of the PSC meetings Gender-specific indicator: Minimum 40% of PMU and Steering Committee member are women	- Inception Report - PSC reports PMU progress reports PMU and Steering Committee membership records	- PMU recruitment completed with no delays - EA supports hosting and onboarding of PMU - PMU trained on UNEP GEF procedures - PSC members actively participate - Assumption: Qualified women are available and willing to serve on the PMU and Steering Committee -	3.5	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a 17.7 17.17 17.18
Output 5.1.2 Coordination and active participation and contribution to Global Project meetings and working groups	- Participation in IP Annual Conferences and key events - Participation in number of virtual events and working groups - PMU and national expert contributions to key reports and issues	Global Project to be implemented to ensure coordination between all 15 Child Projects under the IP Plastics	- Key project staff participate in min of 4 IP Annual Conferences and key events - PMU participate in min 75% of relevant virtual events and working groups - PMU and national experts provide contributions to min 75% of relevant Global Project reports	- IP Annual Conferences and key events reports - PMU progress reports	Requests received by GP with sufficient time to contribute	3.5 3.11	
Outcome 5.2 Increased National and Global knowledge and awareness on Circular Solutions to Single Use Plastic Packaging Pollution from the Food and Beverage Sector	- Number of knowledge products, activities and events created (disaggregated by type). - Number of stakeholders (disaggregated by gender (as self-assessed), occupation, age, etc.) contributing towards knowledge products (disaggregated by type) - Number of stakeholders (disaggregated by gender (as self-assessed), occupation, age,	Building upon communication and KM work of the EA and key partners Pending Global Project Knowledge Management and Communication strategy development	- Min 20 knowledge products, activities and events created (disaggregated by type). - Min 75% of all stakeholders contributing towards knowledge products (disaggregated by type) - Min 75% of all stakeholders (disaggregated by gender (as self-assessed), occupation, age, etc.) participated in knowledge products, activities, and events	- Communication and Knowledge Management (KM) strategy and workplan - Communication events reports - Web-site and social media - Articles, news items, best-practices and other KM reports PMU progress reports	- PMU has capacity on communication and KM - PSC and project partners actively participate in - GP responsive to aligning communication strategies Requests received by GP with sufficient time to contribute to meeting/reports	3.13[2] 3.11[3]	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a 17.7 17.17 17.18

	etc.) participated in knowledge products, activities, and events						
Output 5.2.1 Communication and Knowledge Management strategy developed and implemented for the project developed and implemented using Global Project and other relevant platforms	- Communication and KM detailed workplan (including platform/web-site) - Number of stakeholders engaged in knowledge sharing (m/f); - Number of best practices/project results/news shared - Number of knowledge management articles/reports etc. - No of events attended by project team Gender-specific indicator: Representation of women experts and contributors in the development and implementation of the Communication and Knowledge Management strategy	Building upon communication and KM work of the EA and key partners	- Communication and KM detailed workplan (including platform/web-site) adopted at Inception Meeting/1st PSC by Y1 Q2 - Min 75% of all stakeholders contribute to and disseminate KM products - Min 10 best practices/project results/news shared - Min 20 knowledge management articles/reports etc. - - Min 2 events attended by project team - At least 40% of the team developing and implementing the strategy are women experts and contributors	Communication and Knowledge Management (KM) strategy and workplan Communication events reports Web-site and social media Articles, news items, best-practices and other KM reports PMU progress reports - Project team composition records - Stakeholder engagement records - Strategy implementation reports	PMU has capacity on communication and KM PSC and project partners actively participate in - Assumption: There are qualified and interested women professionals available to contribute to the strategy development and implementation	3.13	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a 17.7 17.17 17.18
Output 5.2.2 Contribution to the Global Project Knowledge Management and Communication established	- Review/contribute to Global Project Knowledge Management and Communication strategy and workplan - Participate in Annual conferences, knowledge sharing sessions, webinars, capacity development activities - -Best practices and success stories prepared in English Gender-specific indicator Percentage of women contributing to the Global Project Knowledge Management and	Pending Global Project Knowledge Management and Communication strategy development	- Alignment to Global Project Knowledge Management and Communication strategy and workplan by Y1 Q2 - Participate in 75% of relevant Annual conferences, knowledge sharing sessions, webinars, capacity development activities - Min 10 best practices and success stories prepared in English uploaded on GP platform - At least 40% of contributors to the Global Project Knowledge Management and Communication efforts are women	- GP Knowledge Management and Communication strategy - GP Annual conferences, and other meeting reports Best practices and other KM reports Contributor lists and bios Event recordings and materials Global platform analytics	- GP responsive to aligning communication strategies Requests received by GP with sufficient time to contribute to meeting/reports	3.13 3.11	6.3, 6a, 6.c 14.1 11.6 12.5, 12.6, 12.7, 12.a 17.7 17.17 17.18

	Communication efforts						
Monitoring and Evaluation (M&E)							
M&E Outcome Efficient and timely project execution, monitoring and evaluation processes carried out, and corresponding improvement of project execution as appropriate.	- Project Implementation Review (PIR) to UNEP and GEF rating - Recommendations of the MTR reflected in revised results framework, workplan and budget	*No monitoring or evaluation until the project starts*	- Yearly PIR achieves rating of MS or above - 100% of recommendations from MTR addressed and reflected in revised results framework, workplan and budget	- PIR Reports - Evaluation reports PSC Reports	- EA and PMU have capacity, experience and training on UNEP projects and reporting EA & PSC committed to support the project	3.13	N/A
M&E Output 1: Documented monitoring and reporting process throughout the entire project execution life cycle ensuring successful project delivery.	- Inception Report with M&E activities, roles and responsibilities and templates agreed - Number of quarterly progress and financial reports submitted in a timely manner - Number of Project Implementation Review (PIR) to UNEP and GEF - Number of Co-financing Reports - Number of reports on GEF Core Indicators/GEBs and other core indicators Gender-specific indicator: - Number of progress reports include a gender section to review progress on gender-responsive specific indicators and targets	No monitoring reports or meetings have been organized before the project starts.	- Inception Report with M&E activities, roles and responsibilities and templates agreed by Y1 Q2 - 4 per year quarterly progress and financial reports submitted in a timely manner - Yearly Project Implementation Review (PIR) to UNEP and GEF - Yearly Co-financing Reports - Baseline, mid-point and final monitoring reports on GEF Core Indicators/GEBs and other core indicators Gender-specific indicator: - 100% of progress reports include a gender section to review progress on gender-responsive specific indicators and targets	Inception Report Quarterly progress reports Quarterly finance reports Yearly PIR and co-financing reports GEF Core Indicator reports - Project monitoring and evaluation reports - Gender analysis reports - Stakeholder feedback and consultations	EA and PMU have capacity, experience and training on UNEP GEF monitoring and reporting requirements	3.13	N/A
M&E Output 2: Independent evaluations to assess the progress, success, and effectiveness of the project undertaken and recommendations reflected in project implementation.	- Number of evaluation reports - Number of stakeholders engaged in evaluation process - Recommendations of the MTR reflected in revised results framework, workplan and budget	No evaluation reports have been produced before the project starts.	- Mid-Term Review completed by YR2 Q4 - Terminal Evaluation completed by YR5 Q2 - 100% of key stakeholders and partners engage in evaluation process - 100% of recommendations from MTR addressed and reflected in revised results framework, workplan and budget	Evaluation Reports PMU reports	- Evaluation consultant recruited and delivers on time EA & PSC committed to support the project	3.13	N/A

M&E Output 3: Regular contribution to the Global Project M&E Reporting	- Number of contributions to Integrated Program Annual Report, the Global Project's M&E kick-off meeting; Quarterly reports; Mid-term Evaluation and Terminal Evaluation	No reports have been produced before the GP project starts.	- Min 4 Integrated Program Annual Reports include contributions from PMU -PMU participate in GP M&E kick-off meeting - - PMU responds to all requests for contributions to contribute to mid-term and final evaluation and other reports as required	- GP Integrated Program Annual Reports - GP meeting reports Correspondence/e mails with GP	Requests received by GP with sufficient time to contribute	3.13	N/A

[1] 3.5 Institutional capacity to adopt and act on national and international commitments is enhanced.
[2] 3.13 Sound science, data and statistics, analysis, information and knowledge are generated and shared.
[3] 3.11 Global advocacy catalyses the phase-out of most polluting products and practices.

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount ($)		
	Budgeted Amount	Amount Spent To date	Amount Committed
PPG Design Expert (Plastic Expert)	25,000.00	25,000.00	
PPG Design Expert (Gender/KM/Coms Expert)	12,500.00	12,500.00	
Travel	15,000.00	15,000.00	
PPG Design Expert (GEF Design Specialist)	22,500.00	22,500.00	
National Coordinator	45,000.00	45,000.00	
Stakeholder Consultations (1 working workshop and one validation workshop)	30,000.00	30,000.00	
Total	**150,000.00**	**150,000.00**	**0.00**

ANNEX E: PROJECT MAP AND COORDINATES

Please provide geo-referenced information and map where the project interventions will take place

Location Name	Latitude	Longitude	GeoName ID
South East	6.07000	7.42981	12,217,928

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

Location Name	Latitude	Longitude	GeoName ID
South West	7.49058	4.10768	12,073,576

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

Location Name	Latitude	Longitude	GeoName ID
North West	11.842801	6.84283	12,217,931

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

Location Name	Latitude	Longitude	GeoName ID
South South	4.85146	6.39861	12,217,921

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

Location Name	Latitude	Longitude	GeoName ID
North East	10.40972	11.42906	12,217,922

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

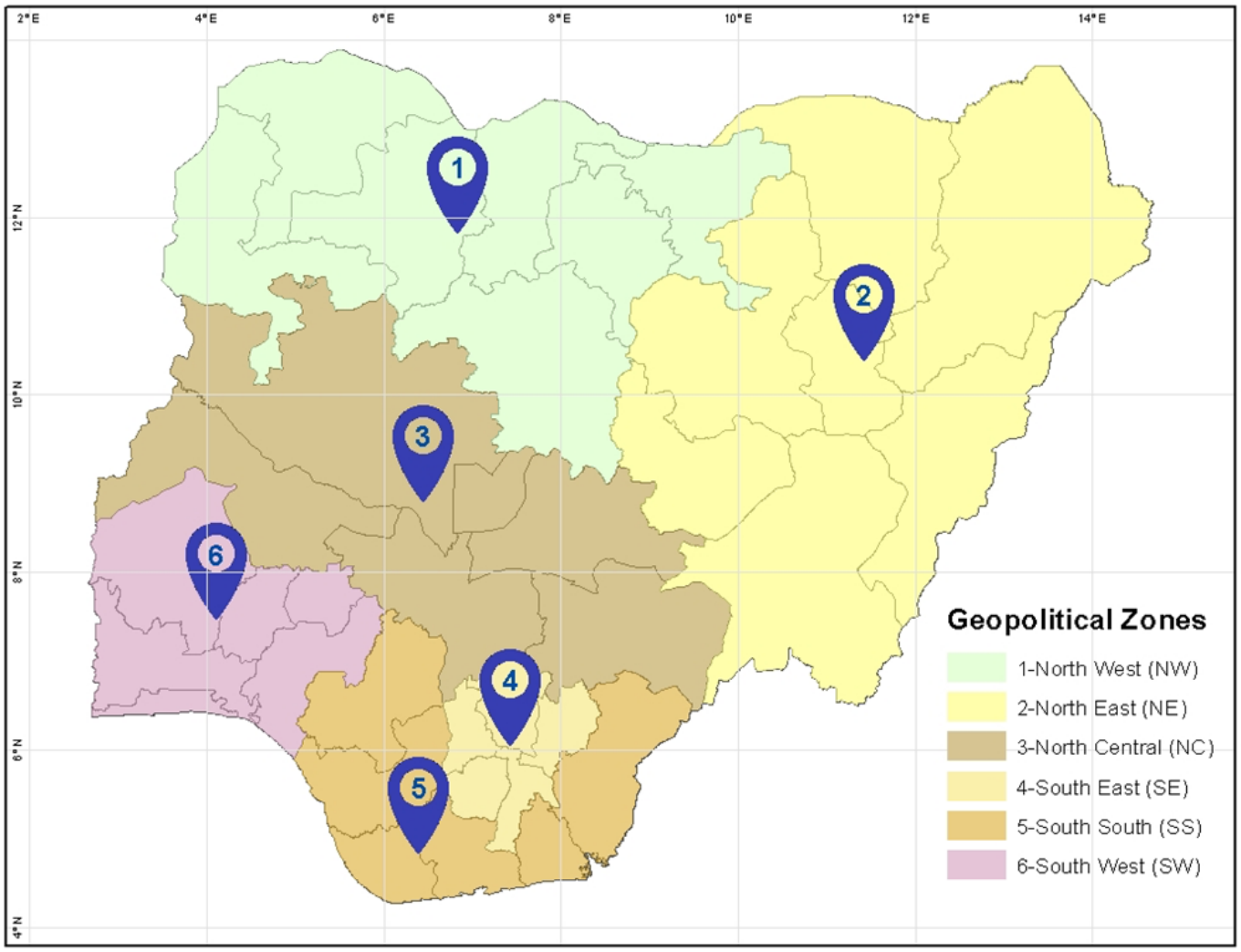
Location Name	Latitude	Longitude	GeoName ID
North Central	8.81959	6.44883	12,503,068

Location Description:

Activity Description:

The project will intervene nation-wide, in the 6 geopolitical zones. However, most of the meetings and activities will take place in Abuja and Lagos, given the political and economic importance. Component 1 will have specific activities in at least 3 Nigerian States, and capacity building will include the 6 geopolitical zones

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.



ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS DOCUMENTS INCLUDING RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

11193 - Plastic IP Nigeria - Annex F - SRIF

ANNEX G: BUDGET TABLE

Please upload the budget table here.

		BUDGET ALLOCATION BY PROJECT COMPONENT, M&E and PMC							BUDGET BY YEAR						Responsible Entity
BUDGET LINE JUSTIFICATION	**TOTAL**	**C1**	**C2**	**C3**	**C4**	**C5**	**M&E**	**PMC**	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**	**TOTAL**	**Executing Entity receiving funds from the GEF Agency**
		GEF (US$)	**GEF (US$)**	**GEF (US$)**	**GEF (US$)**	**GEF (US$)**	**GEF (US$)**	**GEF (US$)**	**US$**	**US$**	**US$**	**US$**	**US$**	**US$**	
PROJECT PERSONNEL COMPONENT															
Project Personnel														**405,002**	
Project Coordinator / Senior Technical Advisor	138,000	20,700	27,600	20,700	13,786	13,800	6,914	34,500	27,600	27,600	27,600	27,600	27,600	138,000	NESREA
Technical and scientific staff	90,002	18,000	18,000	18,000	9,002	13,500		13,500	19,840	17,440	18,640	17,040	17,040	90,002	NESREA
Communications, KM, systems and data management staff	67,500	13,500	13,500	13,500	8,100	10,800	8,100		13,500	13,500	13,500	13,500	13,500	67,500	NESREA
Stakeholder Engagement, capacity building and private sector staff	67,500	13,500	13,500	13,500	8,100	10,800	8,100		13,500	13,500	13,500	13,500	13,500	67,500	NESREA
Other staff	42,000	6,300	6,300	6,300	6,300	2,100		14,700	8,400	8,400	8,400	8,400	8,400	42,000	NESREA

Consultants w/m															**534,631**	
Policy and legislation experts	135,001	115,715			19,286				16,107	11,643	35,393	31,107	40,750	135,001	NESREA	
Thematic plastic technical and scientific experts	45,000		45,000						15,000	15,000	15,000			45,000	NESREA	
Financial mechanisms and sustainable financing expert(s)	60,790		60,790						12,158	12,158	12,158	12,158	12,158	60,790	NESREA	
Circular Economy expert(s)	22,500			22,500							11,250	11,250		22,500	NESREA	
M&E specialist	15,000					15,000			3,000	3,000	3,000	3,000	3,000	15,000	NESREA	
Other project consultants/experts	146,340	36,000	15,750	15,840	33,750	36,000	9,000		28,920	46,545	23,625	23,625	23,625	146,340	NESREA	
Evaluator (Mid-term)(Terminal)	110,000						110,000				45,000		65,000	110,000	NESREA	
Administrative Support														**42,000**		
Admin / Finance Support Staff	42,000							42,000	8,400	8,400	8,400	8,400	8,400	42,000	NESREA	
Travel														**150,342**		
Travel of Staff on official business	21,984	2,748	8,244	5,496			5,496		4,763	2,015	6,595	5,679	2,931	21,984	NESREA	
Travel for Global Project meetings	70,000					70,000			14,000	14,000	14,000	14,000	14,000	70,000	NESREA	
Travel of Consultants	58,358	2,748	18,244	8,041	4,325	25,000			13,371	10,623	15,458	11,209	7,697	58,358	NESREA	
SUB CONTRACT COMPONENT																
Transfers & Grants to Implementing Partners														**3,635,000**		
Sub-contract, UN Agency	175,000	15,000	15,000	15,000	15,000	15,000		100,000	35,000	35,000	35,000	35,000	35,000	175,000	NESREA	
Sub-contract, NGO	1,650,000			1,500,000	150,000				30,000	30,000	780,000	780,000	30,000	1,650,000	NESREA	
Sub-contract, GOV Institutions	310,000		310,000						103,333	103,333	103,333			310,000	NESREA	

Sub-contract, Local municipalties	1,500,000			1,500,000							750,000	750,000		1,500,000	NESREA
Contract Services														**776,100**	
Commercial Contract Company Services	720,400	67,000	38,000	215,400	400,000				150,567	158,067	182,967	142,800	86,000	720,400	NESREA
Commercial Contract Company Facilities	55,700	28,500	10,800	2,400	8,000	6,000			8,600	8,600	13,900	12,300	12,300	55,700	NESREA
TRAINING COMPONENT															
Training														**146,823**	
Training Personnel / Users	146,823	77,100	22,140	47,583					28,335	40,506	34,971	27,591	15,420	146,823	NESREA
Meetings														**169,050**	
Inception Workshop meeting	2,000						2,000		2,000					2,000	NESREA
Steering Committee and/or Working Group meetings	32,125					32,125			6,425	6,425	6,425	6,425	6,425	32,125	NESREA
Meeting National	134,925	89,950	19,275		25,700				11,565	11,565	37,265	37,265	37,265	134,925	NESREA
SUPPLIES COMMODITIES AND MATERIALS															
Supplies, Commodities and Materials														**24,259**	
Office Supplies and consumables	10,000							10,000	2,000	2,000	2,000	2,000	2,000	10,000	NESREA
Materials	14,259							14,259	14,259					14,259	NESREA
Equipment and Furniture														**25,000**	
Equipment	21,000							21,000	21,000					21,000	NESREA
Furniture	4,000							4,000	4,000					4,000	NESREA
MISCELLANEOUS COMPONENT															
Reporting costs														**43,000**	

(publications, maps, NL)															
Publications, Translations, Dissemination and reporting costs	28,000	3,000		5,000	5,000	15,000			8,000	6,000	3,000	3,000	8,000	28,000	NESREA
Audits	15,000							15,000	3,000	3,000	3,000	3,000	3,000	15,000	NESREA
Sundry (communications, postages)														**15,000**	
Communications (tel, e-mail, etc..)	15,000			5,000				10,000	2,000	2,000	4,500	4,500	2,000	15,000	NESREA
TOTAL	**5,966,207**	**509,761**	**642,143**	**3,414,260**	**706,349**	**265,125**	**149,610**	**278,959**	**628,644**	**610,321**	**2,227,881**	**2,004,349**	**495,012**	**5,966,207**	

Please explain any aspects of the budget as needed here

N/A

ANNEX I: RESPONSES TO PROJECT REVIEWS

From GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF.

N/A