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Following approval by the Ghana NPAP Steering Board on 22nd February 2022, this financing roadmap has been adopted and is hereby endorsed by the Financing Task Force co-chairs:

Ms. Juvaria Aumeerally  
Co-chair, Ghana NPAP Financing Task Force, Investment Manager, British International Investment (formerly CDC Group)

Ms. Gladys Osabutey  
Co-chair, Ghana NPAP Financing Task Force, Chief Economics Officer and Head UN System & Foundation Unit, Ministry of Finance
Rapid economic expansion coupled with poor waste management is creating a significant plastics pollution crisis in Ghana. With a population growing at 2.2% per annum and per capita consumption of plastics growing at 3.4% per annum, the country is facing an ever-increasing volume of plastic in municipal waste streams. This is exacerbated by inadequate waste management, a shortage of recycling facilities, and poor governance structures that fail to manage and reduce plastic waste. Although pockets of action to address this challenge are emerging, it remains exceptionally difficult to unlock financing for activities designed to tackle this crisis.

It’s estimated that Ghana generated about 0.84 million tonnes of plastic municipal solid waste (MSW) in 2020, with 9.5% of this plastic waste leaking into water bodies. Despite major commitments by government, industry and civil society, plastic leakage is projected to grow by 190% between 2020 and 2040 from approximately 78,000 tonnes per year to 228,000 tonnes per year. NPAP Ghana’s A Roadmap for Radical Reduction of Plastic Pollution provides an analysis of two systems change scenarios (SCS) to eradicate plastic pollution: a realistic scenario and an ambitious scenario. Figure 1 displays the plastic waste projections under the business-as-usual (BAU) and SCS models.

Under the NPAP SCS models, capital investment is estimated at $3 billion and $3.3 billion for the realistic and ambitious scenarios respectively. These estimates include investments in recycling plants, collection vehicles and landfills. Between 2020 and 2040, operating costs of $5.1 billion for the realistic scenario and $6.1 billion for the ambitious scenario are likely to be required to achieve the desired pollution reduction outcomes. These figures include expenditure on non-plastic waste.

Figure 1: Plastic waste projections under the BAU and SCS models from 2020 to 2040

Source: NPAP Ghana action roadmap
Assessment of the plastic value chain investment landscape

Overview of the current use of funds

To help promote sustainable and inclusive growth, the government of Ghana has incorporated the Sustainable Development Goals (SDGs) into several national development plans. Specifically, in 2020, the Ministry of Finance set aside $9.1 billion for the SDGs. The government of Ghana was the largest contributor, providing 72% of this total, with another 19% coming from central government funds, internally generated funds, statutory funds, and project funds. The remaining 9% was financed through development partners.

Despite this investment, there’s still a gap between Ghana’s aspirations and the financing that’s available. For Ghana to meet its SDG targets by 2030, estimates show that SDG expenditure should amount to $52 billion per year, resulting in a current SDG financing gap of $43 billion. The cumulative financing shortfall for circular economy-related SDGs is projected to amount to $193 billion by 2030, representing 44.7% of the anticipated total SDG gap (refer to Figure 2).

Source: Country financing roadmap for the SDGs: Ghana Insight Report, June 2021

Challenges impeding investments into more sustainable plastic operations

Despite encouraging examples of emergent action and innovation across the plastics value chain, new funding is not yet adequately flowing to potential projects. This is due, in part, to:

- A tough commercial investment landscape, including prohibitively high interest rates and high costs for downstream plastic waste management.
- Limited technical and institutional capacity for circular economy practices.
- A lack of diverse service providers in the waste management sector.
- Minimal funding for the informal economy, particularly for women- and youth-owned businesses due to their perceived high-risk status.
- Limited funding for R&D.
- Insufficient incentives for and regulation of the private sector to promote investment.

Recommendations identified in the national action roadmap to unlock financing

International best practice and the NPAP Ghana action roadmap indicate five initial actions are needed to address these financing challenges:

- Provide financial incentives to encourage circular economy business models and new innovations at low interest rates.
- Incentivize manufacturers to use recycled content.
- Develop and implement a comprehensive, transparent, and fair Extended Producer Responsibility (EPR) scheme to finance waste collection and recycling infrastructure.
- Provide favorable conditions for the development of end markets for recycled materials.
- Invest in waste-reduction processes and infrastructure.
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- Provide favorable conditions for the development of end markets for recycled materials.
- Invest in waste-reduction processes and infrastructure.

The NPAP Ghana Financing Task Force

NPAP Ghana’s Financing Task Force has developed this financing roadmap which outlines recommendations to unlock financing for the circular economy for plastics and attract investment in sustainable solutions. Furthermore, the Financing Task Force will play a vital role in identifying common objectives among organizations, bringing them together to achieve their shared goals.

Objectives

The Financing Task Force has five overarching objectives:

1. Map investable ventures and projects.
2. Identify gaps and barriers to sustainable financing.
3. Identify financing mechanisms that have proven successful for infrastructure and in other contexts.
4. Develop and launch a roadmap outlining the pathway to financing investable interventions.
5. Coordinate financing partners to deliver on the recommendations of the financing roadmap.
Membership
The Financing Task Force comprises 26 member organizations across government, the public and private sectors, multilateral organizations, and financial institutions.

Table 1: Financing Task Force Members

<table>
<thead>
<tr>
<th>Task Force members</th>
<th>1. Ministry of Finance</th>
<th>2. British International Investment (formerly CDC Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International organizations</td>
<td>13. United Kingdom Foreign Commonwealth Development Office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16. ABSA Group Ltd</td>
<td>17. Societe Generale</td>
</tr>
<tr>
<td></td>
<td>20. Venture Capital Trust Fund</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25. SESA Recycling</td>
<td>26. Jospong Group</td>
</tr>
</tbody>
</table>

Cross-cutting recommendations
The Financing Task Force has developed 12 recommendations to create a favorable funding ecosystem that addresses the financing challenges across the plastics value chain. These cross-cutting recommendations fall into three broad themes:

Theme 1: Government intervention is required to create financial incentives and setting enabling policy
Using financial incentives and structures to increase funding flows into the plastics value chain
- Setting smart policy for systemic change
  1. Ensure the effective management of the Plastic and Sanitation levy funds to support circular plastics-related MSMEs to scale their operations.
  2. Provide clear incentives for the use and manufacture of locally produced recyclates.

Theme 2: Financial institutions should collaborate to develop sustainable financing instruments
Using innovative financial instruments, structures, and partnerships to promote funding flows
- Develop a gender-responsive and inclusive framework and database for investable companies and investors.
- Increase recycling capacity and upstream innovation through partnerships that enhance technical and institutional capacity.

Theme 3: Upstream and downstream activities need sufficient scale to make investment worthwhile
Formalizing frameworks to create an enabling market
- Set up formal collection points and community buyback centers for more efficient collection and recycling.
- Commoditize recycled material.

Priority recommendations for short-term delivery
Five of these recommendations have been prioritized for short-term implementation, and a further three have been identified as necessary for immediate market development. These include:
- Recommendation 1: Ensure the effective management of the Plastic and Sanitation levy funds to support circular plastics-related MSMEs to scale their operations.
- Recommendation 2: Provide clear incentives for the use and manufacture of locally produced recyclates.
- Recommendation 3: Develop and implement an EPR policy for the full plastics value chain.
- Recommendation 4: Set minimum targets for the use of recycled material in certain industries.
- Recommendation 5: Introduce innovative financial instruments and investment structures for formal and informal workers and businesses.
Financial instruments that can be leveraged to unlock financing

### Development financing institutions (DFIs)

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Type</th>
<th>Financing options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|            | Private-sector loans | 1. Corporate loans  
|            |                   | 2. Growth finance for mid-caps  
|            |                   | 3. Project finance loans  
|            |                   | 4. Corporate hybrid debt  
|            | Intermediated loans | 1. Intermediated loans  
| Equity     | Venture debt | 1. InnovFin - EU Finance for Innovators  
|            | Investment in debt and equity funds | 1. Equity or debt funds (incl. mezzanine funds)  
|            |             | 2. Captive funds or investment platforms sponsored by national promotional banks/institutions  
|            |             | 3. Co-financing  
| Guarantees | Credit enhancement for project finance | 1. Project Bond Credit Enhancement  
|            | Guarantees in support of SMEs, mid-caps, and other objectives | 1. Risk-sharing guarantees (linked and de-linked)  
|            |             | 2. Supply chain (reverse factoring) guarantees  
|            |             | 3. Trade finance guarantees  
|            |             | 4. Micro-finance  
| Loans      | Green financing | 1. Debt credit financing  
| Equity     | Investment in debt and equity funds | 1. Share purchase  
|            |             | 2. Debt  
|            |             | 3. Combination of share purchase and debt  
|            | Credit enhancement | 1. Equity  
|            |                 | 2. Preference shares  
|            |                 | 3. Convertible debts with ratchets  

### Alternative sources of investments

<table>
<thead>
<tr>
<th>Fund type</th>
<th>Description</th>
<th>Potential funder examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philanthropy</td>
<td>Typical charitable fund</td>
<td>1. Bill &amp; Melinda Gates Foundation</td>
</tr>
</tbody>
</table>
| Commercial investors | Funding, grants and other support from the corporate sector | 1. Nestle  
|            |                        | 2. Coca-Cola  
|            |                        | 3. Dow  
|            |                        | 4. PepsiCo  
| Concessional capital | Typically grants and technical assistance or other forms of catalytic capital through ministries or development agencies (through official development assistance) | 1. KFW  
|            |                        | 2. GIZ  
|            |                        | 3. SNV  
|            |                        | 4. AFD  
|            |                        | 5. UNCDF  

### The role local financial institutions can play to unlock financing

The following recommendations to increase the participation of local financiers have been made by the local commercial banks on the Financing Task Force:

- Increasing the visibility of circular economy initiatives
- Government-backed credit enhancement guarantees
- Technical assistance
- Working with incubators and accelerators
- Government assistance in the ease of recovery of defaulted loans
- Using digitization to help make funding more inclusive

### Turning recommendations into action

To implement the Financing Roadmap’s short-, medium-, and long-term recommendations effectively, the Financing Task Force should:

- Develop a robust delivery plan by defining an implementation strategy, setting targets, and trajectories, and outlining the chain of delivery.
- Institute routines to monitor progress, diagnose problems, and establish a culture of accountability.
- Develop an effective and reliable data system to track the performance and impact of the recommendations outlined.

Ultimately, both public and private sectors must work together to facilitate a more conducive financing environment and increase investment flows for initiatives throughout the plastics value chain. By convening key government ministries, local and international financial institutions, development partners, and various industry players, the Financing Task Force aims to deliver on the 12 recommendations that form part of its action plan and continue to find ways of enabling a circular plastics economy in Ghana.
Overview of the NPAP Ghana’s action roadmap

Ghana has experienced significant economic growth and political stability over the last two decades. This has coincided with a substantial increase in the consumption of plastic products, especially single-use plastics, and, consequently, a rise in plastic waste. It’s estimated that Ghana generates around 0.84 million tonnes of post-consumer plastic waste each year— a total that’s rising annually by 5.4%.

This rapid growth in plastic waste is driven by a population that’s growing at 2.2% per annum and an increase in per capita plastic consumption of 3.4% per annum. In 2020, the national average MSW (municipal solid waste) generated in Ghana was estimated at 0.50kg per person, per day, of which 0.06kg is plastic, or 12% of all MSW generated. Ghana currently records a plastic waste collection rate of 49%. Managed plastic waste is estimated to be 23.8%, while 66.7% is mismanaged (26.2% dumped on land, 22.6% dumped at uncontrolled dumpsites and 17.9% burned openly) and 9.5% leaks into water bodies. As a result, about 1.8 million tonnes of plastics will be mismanaged per year by 2040 if urgent actions are not taken to address the root causes of plastic waste mismanagement.

In 2019, Ghana became the first African country to join the Global Action Plastics Partnership (GPAP), and the government announced the formation of Ghana’s National Plastics Action Partnership (NPAP). This coalition brings together government, public and private sector organizations, as well as civil society, to define a clear and sustainable pathway to address plastic pollution.

Waste is not a neutral, objective concept but rather determined by factors such as lifestyle, social structure, gender, class, and ethnicity. Plastic pollution affects diverse groups of women and men differently in terms of the opportunities, risks, exposure, and health outcomes it creates. Ghana’s linear plastics model offers employment opportunities to about 31% of women. Although predominantly in the informal economy, these women work in the lower echelons of the value chain. As Ghana transitions towards a circular economy to end plastic pollution, the growth of green industries represents a significant source of jobs and business opportunities for women and youth in emerging markets.
NPAP Ghana’s action roadmap provides an analysis of two costed system change scenarios (SCS) to end plastic pollution in Ghana: a realistic scenario and an ambitious scenario. Adapting either of these scenarios, when compared to the business-as-usual (BAU) scenario, will have a considerable positive impact on Ghana’s societal and environmental objectives. Using the SCS, the action roadmap recommends five interventions to combat plastic pollution by 2030.

Table 2: NPAP Ghana intervention areas and targets for 2040

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Realistic scenario</th>
<th>Ambitious scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce and substitute plastic usage</td>
<td>Reduce 30%</td>
<td>Reduce 40%</td>
</tr>
<tr>
<td></td>
<td>Substitute 10%</td>
<td>Substitute 13%</td>
</tr>
<tr>
<td>Redesign plastic products and packaging for reuse or high value recycling</td>
<td>Conversion of 38% multi-layer packaging, and 5% of multi-material household goods</td>
<td></td>
</tr>
<tr>
<td>Scale up collection</td>
<td>From 40% to 85%</td>
<td>From 49% to 100%</td>
</tr>
<tr>
<td>Increase recycling</td>
<td>From 10% to 32%</td>
<td>From 10% to 45%</td>
</tr>
<tr>
<td>Improve safe disposal</td>
<td>Build or expand controlled waste disposal facilities</td>
<td></td>
</tr>
</tbody>
</table>

Source: NPAP Ghana action roadmap

Without major intervention, plastic pollution will get worse

Using the NPAP model, it’s estimated that Ghana generated about 0.84 million tonnes of MSW plastics in 2020. The model estimates that 78,000 tonnes of plastic leaks into water bodies, including rivers, streams, lakes, and the ocean, representing about 9.5% of total plastic waste generated. Despite major commitments by government, industry, and civil society, plastic leakage is projected to grow by 190% between 2020 and 2040, from approximately 78,000 tonnes per year to 228,000 tonnes per year (see Figure 1).

Figure 3: Plastic waste projections under the BAU and SCS models from 2020 to 2040

Despite major commitments by government, industry, and civil society, plastic leakage is projected to grow by 190% between 2020 and 2040.
Transforming the plastics sector requires action that is both systemic and systematic. To combat plastics pollution, the action roadmap has identified four accelerators critical for achieving system change:

1. **Implement the existing National Plastics Management Policy and related legislative instruments.** Requires realigning the existing legal and institutional framework to support circular economy-based management of the plastics sector.

2. **Create longer-term financing instruments for projects at industry-friendly interest rates.** Current financing instruments are prohibitive to new businesses as interest rates are too high and funding periods too short term.

3. **Improve infrastructure by introducing household bins for plastic waste and incentivizing downstream waste segregation.** A well-designed public education programme and supporting activities that reward appropriate behaviors by households are essential.

4. **Develop an empowering environment for the development of end markets.** A reliable and profitable end market helps build a viable industry, overcoming the poor business outcomes and lack of added value for recyclers which negatively impact the waste management system.

Capital expenditures are estimated at $3 billion and $3.3 billion under the realistic and ambitious scenarios, respectively. These estimates include investments in recycling plants, collection vehicles and landfills. Between 2020 and 2040, operating costs of $5.1 billion for the realistic scenario, and $6.1 billion for the ambitious scenario are likely to be required to achieve the SCS. These figures include expenditure on non-plastic waste.

### Table 3: Estimate of capital expenditure for SCS interventions

<table>
<thead>
<tr>
<th></th>
<th>Realistic scenario ($ billion)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collection</td>
<td>Transfer</td>
<td>Sorting</td>
<td>Recycling</td>
<td>Disposal</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Plastic</td>
<td>0.04</td>
<td>0.05</td>
<td>0.16</td>
<td>0.76</td>
<td>0.22</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Non-plastic</td>
<td>0.13</td>
<td>0.27</td>
<td>0.06</td>
<td>-</td>
<td>1.34</td>
<td>1.79</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.17</td>
<td>0.32</td>
<td>0.22</td>
<td>0.76</td>
<td>1.56</td>
<td>3.02</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ambitious scenario ($ billion)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Collection</td>
<td>Transfer</td>
<td>Sorting</td>
<td>Recycling</td>
<td>Disposal</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Plastic</td>
<td>0.04</td>
<td>0.05</td>
<td>0.23</td>
<td>0.85</td>
<td>0.21</td>
<td>1.38</td>
<td></td>
</tr>
<tr>
<td>Non-plastic</td>
<td>0.14</td>
<td>0.27</td>
<td>0.13</td>
<td>-</td>
<td>1.41</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.18</td>
<td>0.33</td>
<td>0.36</td>
<td>0.86</td>
<td>1.62</td>
<td>3.33</td>
<td></td>
</tr>
</tbody>
</table>

Source: NPAP Ghana action roadmap

$3.3B

*Capital expenditures are estimated at $3 billion and $3.3 billion under the realistic and ambitious scenarios, respectively.*
Ghana’s increasing demand for plastic products

Ghana has experienced robust economic growth over the past two decades. It is Africa’s eighth largest economy, and its demographic profile benefits from high levels of education and human development, signaling high potential for future growth. Political stability and an investor-friendly legal and regulatory market make Ghana a strategic entry point to the West African market.

The country’s economic growth has also led to a substantial increase in the consumption of plastic products, thus generating an increase in plastic waste. Having attained middle-income status, the country finds itself in a delicate situation: economic development is fueling growth, but access to concessional funding from developmental organizations has declined due to Ghana’s improving economic status.

Consequently, the government has announced its aim to reduce the country’s dependence on foreign aid and to develop Ghana into a globally competitive nation through the ‘Ghana Beyond Aid agenda’.

As a demonstration of its commitment to its population’s wellbeing, the government of Ghana has incorporated the SDGs into various national development plans. The Ghana Beyond Aid Charter speaks to the aspirations of the SDGs, calling for a nation that is wealthy, inclusive, sustainable, empowered, and resilient.

The Ministry of Finance has included SDG budgeting as part of the national budgetary process, with $9.1 billion set aside for the SDGs in 2020. The government of Ghana was the largest contributor, providing 72% of this total (see Figure 4), with another 19% coming from central government funds, internally generated funds, statutory funds, and project funds. The remaining 9% was financed through development partners.
Despite the public sector dominating funding for the SDGs, there are several private sector initiatives emerging. One example is the formation of the CEO Advisory Group. The Group intends to establish two funds: the SDG Delivery Fund, which is expected to be a philanthropic commitment from the private sector, and the Green Fund, which will target sectors including renewable energy, forestry, transportation, and housing. The sizes of these funds are yet to be confirmed by the Group.

**For Ghana to meet its SDG goals by 2030, estimates suggest that expenditure on SDGs should average approximately $52 billion per year.**

**The SDG financing gap**

Despite the importance that has been placed on the SDGs, there's a clear gap between what Ghana hopes to achieve, and the funding and investment that's currently available. For Ghana to meet its SDG goals by 2030, estimates suggest that expenditure on SDGs should average approximately $52 billion per year, resulting in a current financing gap of $43 billion in 2021. The cumulative financing shortfall expected for circular economy plastics-related SDGs is projected to amount to $193 billion by 2030, representing 44.7% of the anticipated total SDG gap (refer to Figure 5).

**For Ghana to meet its SDG goals by 2030, estimates suggest that expenditure on SDGs should average approximately $52 billion per year.**

This highlights the acute need for more private sector investment in Ghana’s plastics sector, as government spending on plastics-related SDGs has decreased from $0.97 billion in 2019 to $0.94 billion in 2020. The next section provides case studies of companies that are attempting to address the plastics pollution crisis in Ghana and how sustainable solutions could be scaled across the country.
Plastic sector initiatives in Ghana

While the challenge of plastic pollution in Ghana has been well documented, the private sector’s role in addressing it has so far been limited. There are, however, encouraging examples of action and innovation emerging across the plastics value chain. Below is a list of some initiatives currently underway in Ghana across the plastics value chain:

Reduce and substitute – Bel-Aqua: Environmental sustainability has become a key priority for manufacturers with a high plastic footprint. As such, Blowchem Industries, the manufacturers of Bel-Aqua, has invested in an inhouse PET bottle-recycling plant to produce its own Bel-Aqua plastic bottles. This has enabled the company to increase profitability while also aiming to meet its PET recycling target of 50% in 2022.13

Re design plastics for recycling – ‘Same Voltic, New Twist’, Voltic GH Ltd: This initiative was rolled out in October 201914 as part of mineral-water brand Voltic’s goal to encourage consumer recycling. The company’s bottles contain 7% less plastic and are designed to be easily twisted and compacted after consumption, thereby allowing for more economical transportation by waste pickers to recycling facilities. The new Twist bottle creates a smaller volume of waste per bottle, encourages consumers to segregate used bottles for recycling and is easier to collect and recycle.

Increase current recycling capacity – ‘Sustainable Initiative’, Miniplast Ltd: Plastic waste proliferation is amplified by a lack of education for environmental sustainability, insufficient waste collection infrastructure and services, limited technology for recycling and the stigmatization of recycled products and waste workers. Miniplast launched a ‘Sustainable Initiative’ to help restrict further environmental degradation. It hopes to achieve this through three key focus areas: educating the public about recycling, improving universal economic opportunities by integrating women, young people, and people with disabilities into the system; and developing an efficient collection, recycling and manufacturing value chain that creates a financially and environmentally sustainable economy. This has led to thousands of tonnes of plastic waste being recycled annually and 86 new employment opportunities since October 2019.15

Improve and expand safe disposal – ‘Greater Accra Resilient and Integrated Development Project (GARID)’, World Bank: Accra, Ghana’s capital, is susceptible to regular flooding. This is in part due to the poor network of drains, an issue which is compounded by widespread and indiscriminate dumping of solid waste into the limited drainage network. GARID aims to reduce the amount of solid waste flowing into both the primary Odaw river channel and the ocean. The project is expected to reduce flood risk and improve solid waste management in the Odaw River Basin of the Greater Accra Region. It should also enhance access to basic infrastructure and services for targeted communities within the basin area. The project runs from 2019 to 2025.16

Although activity aimed at addressing the plastics pollution problem in Ghana is growing, financing is the major constraint inhibiting both the public and private sectors from doing more. The next section focuses on why existing financial models are inadequate, and the key factors impeding investment.
Financing of plastic sector initiatives

An overview of the current use of funds

The current funding landscape for plastics in Ghana is skewed toward public and development financing. Net Official Development Assistance received by Ghana, as a percentage of the national budget, has decreased from more than 20% in 2011, to less than 7.5% in 2019. In line with aspirations to decrease Ghana’s dependence on aid and to ensure the long-term sustainability of the country, attracting more private sector funding and investment is crucial. Targeted solutions and instruments are needed to close the funding gaps that exist at each stage of the plastics value chain. Ghana could recycle 0.52 million tonnes of plastic waste per year by 2040. Yet, current funding flows for the two SDGs related to increasing recycling currently have a collective financing gap of GH€11 billion.

Table 4 summarizes the plastics initiatives funded by international development partners in Ghana.

### Table 4: Initiatives funded by international development partners in Ghana

<table>
<thead>
<tr>
<th>Value Chain intervention</th>
<th>Example of initiative</th>
<th>Funders</th>
<th>Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce and substitute</td>
<td>Promoting the Environmentally Sound Management of Plastic Wastes and Achieving the Prevention and Minimization of the Generation of Plastic Wastes</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td></td>
<td><strong>Budget</strong> $15 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Objective</strong> To strengthen capacity to control transboundary movements of plastics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase recycling</td>
<td>Public-Private Partnerships</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td></td>
<td><strong>Budget</strong> $20 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Objective</strong> The government of Ghana and Zoomlion have built a recycling plant in Accra. The government provided the land, and Zoomlion invested $20 million for construction costs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve safe disposal</td>
<td>Universal Plastic Products and Recycling Limited (UPPR)</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td></td>
<td><strong>Budget</strong> $40 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Objective</strong> To create jobs and promote environmental sanitation by collecting old waste bins and used water sachets for recycling, thus reducing waste in the environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greater Accra Sustainable Sanitation and Livelihoods Improvement Programme (GASSLIP)</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td></td>
<td><strong>Budget</strong> $55.6 million</td>
<td></td>
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<tr>
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<td><strong>Objective</strong> To increase access to safe and sustainable sanitation by providing domestic and municipal level sanitation infrastructure, supporting skills development.</td>
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<td></td>
<td>Greater Accra Resilient and Integrated Development (GARID)</td>
<td></td>
<td>TBC</td>
</tr>
<tr>
<td></td>
<td><strong>Budget</strong> $220 million</td>
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<tr>
<td></td>
<td><strong>Objective</strong> To improve flood risk and solid waste management in the Odaw River Basin.</td>
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</tbody>
</table>

Net Official Development Assistance received by Ghana as a percentage of the national budget

- 20% 2011
- >7.5% 2019

A vibrant recycling industry in Ghana could recover nearly one million tonnes of plastic waste from the environment and landfills annually.

Nana Akufo-Addo
President of Ghana
Challenges impeding investment

Despite promising advances across the plastics value chain, new funding is not yet adequately flowing to potential projects. This is due, in part, to the following reasons:

1. A tough commercial investment environment
   - Commercial interest rates in Ghana are prohibitively high (i.e., greater than 20%), meaning that longer-term investment is often untenable.
   - The economics of waste management are not always favorable due to a combination of the high cost of downstream plastic waste management and limited government funding.
   - The collection and disposal sector has been dominated by one company – Zoomlion. Operational since 2006, Zoomlion is the largest waste management group in Ghana and currently manages 60 to 80% of waste (collection, disposal, and pre-recycling), with contracts either with various District Assemblies or actors in the private sector. The company operates recycling plants, manages most of Ghana’s landfill sites and targets 100% collection in all designated municipalities. To achieve this target, Zoomlion has recently invested in 500 waste-compaction trucks. Other activity to date includes:
     - Total investment in the sector of more than $1 billion.
     - Each regional site has the capacity to recycle 400 tonnes per day, of which 15% can be plastics recycling.

2. Minimal funding for the informal economy
   - Although a significant contributor to waste management in Ghana and other developing regions, the informal economy remains underfunded. Traditional financing mechanisms do not currently cater for this market, particularly for women and youth workers.
   - The limited funding of woman-owned businesses is due to two factors in particular: the perceived high risk of these businesses, plus stereotypes and negative socio-cultural norms in relation to owning assets. This affects women’s chances of using assets as collateral to secure business loans.

3. Lack of competition in the waste management sector
   - The collection and disposal sector has been dominated by one company – Zoomlion. Operational since 2006, Zoomlion is the largest waste management group in Ghana and currently manages 60 to 80% of waste (collection, disposal, and pre-recycling), with contracts either with various District Assemblies or actors in the private sector. The company operates recycling plants, manages most of Ghana’s landfill sites and targets 100% collection in all designated municipalities. To achieve this target, Zoomlion has recently invested in 500 waste-compaction trucks. Other activity to date includes:
     - Total investment in the sector of more than $1 billion.
     - Each regional site has the capacity to recycle 400 tonnes per day, of which 15% can be plastics recycling.

4. Building a recycling plant in each of Ghana’s 16 regions to process plastics and other materials.
5. The lack of competition, which creates high entry barriers and few opportunities to partner with the incumbent, may contribute to modest investment in this sector.
6. More competition should bring enhanced technical knowledge and expertise, lower the general cost of recycling and waste management, and improve the quality of services available.

Nirupama Pandey

Recommendations identified in the action roadmap to unlock financing

NPAP Ghana’s action roadmap identified five actions that address the current financing challenges across the plastics value chain and help create a favorable funding ecosystem:

1. Develop and implement a comprehensive, fair, and transparent EPR scheme. An appropriate EPR must: finance waste collection and recycling infrastructure, foster R&D of new materials, product delivery systems, and recycling technologies; promote product design that encourages reuse and recycling, and sufficiently compensate currently low-earning waste collectors, especially women and the elderly who are unable to compete with youth pickers, and thus cannot collect enough recyclables to earn decent incomes.
2. Provide financial incentives to encourage circular economy business models and new innovations. An example might be loans at low interest rates with long payback periods and terms that are acceptable to industry, especially MSMEs (Micro, Small and Medium Enterprises) and informal economy workers (in particular women and the youth who are disproportionately represented in the informal economy yet face more barriers to accessing finance).
3. Provide favorable conditions for the development of end markets for recycled materials by, for example, ensuring feedstock and encouraging marketing and sustainable business strategies for recycling plastic products.
4. Invest in waste-reduction processes and infrastructure to cut waste disposal volumes. Additional investment is required for community buyback centers prioritized for women, itinerant and elderly waste pickers, and for industrial hubs for recycling that incorporate demarcated areas for informal, women, and youth recyclers.

Recommendations identified in the action roadmap to unlock financing

NPAP Ghana Financing Roadmap

NPAP Ghana financing roadmap
Global plastics circular economy trends

The circular economy presents a multi-trillion-dollar economic opportunity that not only delivers on climate and sustainability goals but also provides new avenues for growth. Within the plastics and consumer-goods packaging sector, public pressure has led to increased regulation and accelerating innovation, resulting in a clear need for new sources of financing.

Private sector stakeholders

In 2017, there were no circular economy-focused debt and equity instruments. A mere four years later, there are now at least ten public equity funds that are financing the circular economy in some way. Within the plastics and consumer-goods packaging sector, public pressure has led to increased regulation and accelerating innovation, resulting in a clear need for new sources of financing.

Examples

- **Organization**: BlackRock, BNP Paribas, Credit Suisse
  - **Examples**: Circular economy-focused equity funds. Publishing thought leadership pieces and offering advisory services.
- **Organization**: Nestlé
  - **Examples**: Committed to cutting its use of virgin plastic in half by 2025 by reducing its use of plastic packaging by 100,000 tonnes and accelerating its adoption of recycled plastic.
- **Organization**: ASASE Foundation
  - **Examples**: The ASASE Foundation was started by two women to help empower other women by creating new income from collecting, sorting, and recycling plastic. They partner with AEPW in the Closing the Loop initiative.

While private financial sector investment in the circular economy has increased over recent years, research by Chatham House shows that 63% of this funding has benefited companies that have committed to transitioning to circular business models. Direct investment in plastics and packaging represents only 4% of the private financial sector investment and remains dominant only in the investment plans of corporates, governments, and development finance institutions (DFIs).

Government, the public sector, and the role of collaboration

Governments, central banks, and regulators can aid the financial sector’s efforts to boost the circular economy by setting sustainable policy, implementing financial costs for externalities, standardizing metrics to enhance transparency and demanding disclosure requirements for circular activities to enable finance flows.
Emerging country trends and opportunities

Emerging market circular economy trends tend to mirror those of more developed regions in that corporations and governments are increasingly moving towards a circular economy. However, there is an enabling finance landscape, and limited existing infrastructure. For example, this distinction between EPR schemes in Western Europe and emerging middle-income countries is that Western European countries such as Germany and Belgium have clear municipal responsibility for waste management, and a reliable housing register to cover the costs of such services. For emerging countries, the requisite regulation and financing often doesn’t exist. In such cases, waste collection must be financed through other means and supplemented by a largely informal workforce. Establishing an EPR system will encourage financially powerful multinationals who are part of the plastics value chain to invest in much-needed infrastructure.

These regional and global examples demonstrate the variety of interventions that can contribute to building a circular plastics economy. To unleash the upstream opportunities, reducing future plastic waste requires consumer goods companies to redesign packaging and delivery models and invest in supply chain innovation. To scale downstream opportunities, investment is required to create new markets for different types of recycled content, thereby scaling recycling capacity and increasing sorting capacity. To aid in this process, governments, the financial sector, and other industry players all have crucial roles: governments through setting up robust and targeted EPR systems, putting a price on externalities, standardizing prices for recyclates, and ensuring favorable fiscal regimes; industry players through reducing their plastic production and innovating new ways to package goods; and the financial sector in designing regionally and globally tailored financing solutions that align with a circular plastics economy.

Table 6: Circular economy trends identified across the public sector and through collaborative activity

<table>
<thead>
<tr>
<th>Trends</th>
<th>Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany, Belgium, India, Chile, South Africa, UK</td>
<td>EPR policies create incentive mechanisms, through target setting and fee charging, that prompt producers to improve the sustainability of their packaging and production processes, reducing their environmental impacts and promoting circular product design.</td>
</tr>
<tr>
<td>As You Saw</td>
<td>The Plastics Sbratins Investor Alliance has over 40 members with $2.5 trillion assets under management and is actively engaging companies to adopt circular economy principles that combat plastic pollution.</td>
</tr>
<tr>
<td>African Plastics Recycling Alliance</td>
<td>Launched to promote innovation and collaboration in Africa, this initiative includes large plastic producers across sub-Saharan Africa, such as Coca-Cola, Nestle, Diageo and Unilever.</td>
</tr>
</tbody>
</table>

Examples

In countries such as Germany and Belgium, EPR systems are run by dedicated producer responsibility organizations (PROs) which contract the waste collectors directly, thereby formalizing their relationship. EPR fees are determined by the recyclability of each material, promoting sustainable eco-design and disincentivizing free riding. In emerging economies, voluntary EPR systems have historically been established as pilot programmes with producers normally working together to implement the EPR system. More formal systems are now being implemented in countries such as India, Chile, and South Africa.

Table 7: Emergent circular economy activity in developing regions

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr Green Africa</td>
<td>Kenya</td>
<td>A tech-enabled plastics recycling company in Kenya is aiming to disrupt the informal and exploitative recycling sector. The company offers an in-house end-to-end process for recycling, buying directly from 2000 waste collectors, the majority of whom are informal workers and among the country’s most marginalized citizens.</td>
</tr>
<tr>
<td>Deepest and Unkvr</td>
<td></td>
<td>Provides a solution for the retail and hospitality industries’ consumption of single-use plastics. By providing a water filtration system, as well as economically viable and reusable single-use plastics alternatives, they’re driving change in these industries.</td>
</tr>
</tbody>
</table>

Examples

In South Africa, Koinpack uses a tech-enabled refill system of reusable packaging for consumers through its network of high-frequency stores. Brands are provided with an opportunity to sell zero-waste products, and consumers get more value for money because they can return their reusable containers.

In Indonesia, Zero Waste Store has started building reuse businesses that are driving systemic change towards a circular economy for plastics. Founded in 2019, it has already launched six ventures that are reducing plastics pollution.
NPAP Ghana’s Financing Task Force has an action plan to reduce plastic waste and encourage efforts to institute a sustainable circular economy. In addition, the Financing Task Force aims to play a vital role in identifying common objectives among organizations, bringing them together to accomplish their shared goals. By uniting diverse stakeholders, generating insights, developing action roadmaps, and matching ideas with financing. NPAP Ghana can achieve greater impact than otherwise individual, uncoordinated activity. Within the NPAP, the Financing Task Force is responsible for identifying sources of financing, matching financing to potential projects, increasing employment, developing innovative financing models, and helping implement high-potential solutions through increased investment, technical assistance, and other forms of financial support.

NPAP task forces

Each task force is responsible for a different thematic area of the action plan: policy, innovation, financing, behavioral change, metrics, and inclusion. The Steering Board, the Technical Committee of NPAP Ghana, and the NPAP Ghana Secretariat work closely with the task forces to implement the action plan.

For the purposes of NPAP Ghana, inclusion is a high priority. Throughout the financing roadmap, specific reference is made to the need to create a more inclusive environment for women and the youth in MSMEs. In addition, when referring to general waste management practices, the task force recognizes the need to include a broader range of marginalized groups, such as migrants, indigenous persons, the elderly, and the poor.

Table 8: The six NPAP task forces

<table>
<thead>
<tr>
<th>Task Force</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy</strong></td>
<td>Develop and implement policy, and regionalize the national action plan, industry standards, and EPR scheme.</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>Enable innovation and the incubation of new and emerging solutions through support, leadership, and incentives from government and industry.</td>
</tr>
<tr>
<td><strong>Investment &amp; Sustainable Financing</strong></td>
<td>Develop financing mechanisms for the five priority interventions: reduce and substitute, redesign, collect, recycle, and dispose.</td>
</tr>
<tr>
<td><strong>Public Awareness &amp; Behavioral Change</strong></td>
<td>Encourage positive consumer choices, waste behaviors and participation in reduction, reuse, and recycling programmes.</td>
</tr>
<tr>
<td><strong>Metrics</strong></td>
<td>Enable digital technologies and traceability mechanisms to monitor leakage, reuse, collection, disposal, etc., and to track progress at the national, city and company level.</td>
</tr>
<tr>
<td><strong>Gender and Social Inclusion</strong></td>
<td>Encourage and facilitate programmes to boost participation of marginalized and diverse groups in the plastics value chain, such as women, youth, and migrant workers.</td>
</tr>
</tbody>
</table>
The Financing Task Force

It is the mission of the Financing Task Force to facilitate new funding and accelerate capital deployment towards the action plan’s broader targets and actions. To represent the diversity of perspectives and expertise found throughout the financing landscape and the plastics value chain, members of the Financing Task Force were selected from a wide range of backgrounds, including government and government-backed financial institutions, local and international financial institutions, development partners and industry players in the collection, recycling, and manufacturing sectors.

The objectives of the Financing Task Force

The Financing Task Force has five overarching objectives:

1. Map investable ventures and projects
2. Identify gaps and barriers to sustainable financing
3. Identify financing mechanisms that have proven successful for infrastructure and other relevant projects in other contexts
4. Develop and launch a roadmap outlining the pathway to financing investible interventions
5. Coordinate financing partners to deliver on the recommendations and goals of the financing roadmap

For the financing roadmap to achieve its intended outcomes, it is essential that the Financing Task Force monitors progress. Establishing metrics for success is key to this, as they provide a method to evaluate whether Ghana is on track to achieve the goals of the action roadmap. Furthermore, the Financing Task Force will coordinate the actions of members towards the implementation of the roadmap’s recommendations.

Task Force Co-Chairs

Task Force Members

NPAP Ghana financing roadmap
In response to the financing challenges identified, the Financing Task Force has made 12 cross-cutting recommendations to help mobilize large-scale investment across the plastics value chain in Ghana from both the private and public sectors. These recommendations, discussed below, fall into three broad themes:

- **Theme 1:** Government intervention is required. The government of Ghana is well placed to affect positive change across the system by creating financial incentives and setting beneficial policy. These policy opportunities require inter-ministerial collaboration from several Ministries, such as Finance, Environment, Science, Technology, and Innovation; Trade and Industry; and Gender, Children and Social Protection, in order to maximize results.

- **Theme 2:** Financial institutions should collaborate to develop sustainable financing instruments for the plastics value chain, while the government can play a crucial role in de-risking the investment environment for plastics in Ghana. Overlapping with Theme 1, the government can supplement the efforts of the financial sector by offering guarantees that reassure investors.

- **Theme 3:** Waste management operations, both upstream and downstream need to attain sufficient scale to become bankable. To achieve this, frameworks should be formalized, and industry players should collaborate, facilitated, wherever possible, by the financial sector.

### A. Overview of recommendations

#### Theme 1: Government intervention through the creation of financial incentives and enabling policy

Using financial incentives and structures to increase funding flows into the plastics value chain

1. **Ensure the effective management of the Plastic and Sanitation levies to support circular plastics-related MSMEs and prioritize women- and youth-owned or led businesses to scale their operations.** This includes promoting R&D for both upstream and downstream operations as well as the developing and expanding waste management facilities.

2. **Provide clear incentives for the use and the manufacture of locally produced recyclates across all industries.** Examples include offering both formal and informal companies throughout the value chain tax and import breaks for using recyclates and circular business models. Similar incentives should be available for businesses manufacturing recyclates.

3. **Develop and implement an EPR policy for the full plastics value chain.** This policy is crucial for financing waste collection and recycling and can help compensate an informal economy that’s currently underfunded. It also ensures investment in infrastructure, R&D, and the development of new materials and delivery models.

4. **Establish clear quality standards and frameworks for the use of recyclates.** The process of developing these standards should be aligned with the International Organization for Standardization (ISO) to ensure worldwide consistency.

5. **Setting minimum targets for the use of recycled material in certain industries (aimed at large polluters, for example).** To make this tenable, a PET bottle-to-bottle recycling plant is required to provide feedstock for companies using recycled materials.
Theme 2: Financial institutions should collaborate to develop sustainable financing instruments for the plastics value chain

Using innovative financial instruments, investment structures, and financing partnerships to promote funding flows

1. Introduce innovative financial instruments and investment structures for formal and informal workers and businesses. This can reduce the risk exposure of local banks and other intermediaries, such as MSME funds. This would make investments in upstream and downstream circular economy projects and MSMEs more attractive.

2. Details of this recommendation are explained under section 4.b with specific and relevant examples provided under section 5.

3. The Financing Task Force is aware that further deliberations and considerations are needed to assess how they would be best suited for the Ghanaian investment landscape.

4. Develop a gender-responsive and inclusive framework for the identification of investable companies, which specifies the characteristics, investors, and debt providers look for in bankable projects. Investor companies willing to offer financing targeted at women- and youth-owned or led businesses should be identified. This framework will lead to the creation of a database where relevant companies and projects along the value chain can be matched with suitable investors for funding. Identifying investable upstream opportunities will be a crucial part of transitioning to a circular economy, as innovation, changing customer preferences and stricter legislation are rapidly transforming the plastics industry.

5. Increase recycling capacity and efficiency, and upstream innovations through partnerships that enhance technical and institutional capacity. Partnering with large brand manufacturers, established recyclers and other stakeholders in the value chain should increase the viability and sustainability of operations. This includes boosting the technical capacity of financial institutions and their offerings and working to ensure that these institutions can deliver on Recommendation 6.

6. Increase access to financing, especially for MSMEs led by women and young people.

7. Develop large manufacturers to partner with MSMEs and the informal economy. This will combine the technical skills and capacity of big business with local know-how to scale up upstream reuse, refill, and redesign models, and downstream recycling and collection efforts.

8. The above recommendations build on the five actions to unlock financing that are outlined in NPAP Ghana’s action roadmap. These are:

   - Develop and implement a comprehensive EPR scheme that fairly compensates for the services of informal actors, particularly women and the elderly.
   - Develop and implement an EPR policy for the full plastics value chain, and sufficiently compensates informal actors.
   - Increase recycling capacity and upstream innovations through partnerships that enhance technical and institutional capacity.
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9. The 12 recommendations have been assessed by the Financing Task Force for their applicability to Ghana. Below, the recommendations have been mapped to the five interventions identified by the NPAP Ghana’s action roadmap.

10. Direct influence

11. Indirect influence

Table 9: Summary of recommendations mapped to action roadmap interventions

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>1. Ensure the effective management of the Plastic and Sanitation levy funds</td>
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<td>2. Provide clear incentives for the use and manufacture of locally produced</td>
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<td>3. Develop and implement an EPR policy for the full plastics value chain,</td>
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<tr>
<td>4. Establish clear quality standards and frameworks for the use of recyclates</td>
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<td>5. Set minimum targets for the use of recycled material in certain industries</td>
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<tr>
<td>6. Introduce innovative financial instruments and investment structures for</td>
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<tr>
<td>7. Develop a gender-responsive and inclusive framework and database for</td>
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<tr>
<td>8. Increase recycling capacity and upstream innovations through partnerships</td>
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<tr>
<td>9. Set up formal collection points and community buyback centers for more</td>
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<tr>
<td>10. Commodityize recycled material.</td>
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<tr>
<td>11. Develop a collaborative mechanism for large waste management companies,</td>
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<tr>
<td>12. Incentivize large manufacturers to partner with MSMEs and the informal</td>
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</table>

Table 9: Summary of recommendations mapped to action roadmap interventions

(1=reduce and substitute; 2=redesign plastic items; 3=increase recycling; 4=scale up waste collection; 5=expand safe disposal)
The following three subsections provide more insight into the recommendations that the Task Force deems a priority over the short- to medium-term.

B. Priority recommendations for short-term delivery

The following section details the recommendations that are considered to have high impact and have achievable implementation in the short-term. As well as being noted in the following sections, a complete list of the parties responsible for actioning each recommendation is provided in the Section 7 appendix under tables eight to 10.

Recommendation 3 (Theme 1): Develop and implement an EPR policy for the full plastics value chain

The Financing Task Force members recognize that all stakeholders agree on the need for an EPR scheme to be promptly developed and implemented.

Members recommend launching a voluntary pilot scheme which is overseen by an independent producer responsibility organization (PRO). The PRO should have visibility of all stakeholders and their capacity and be able to administer the policy’s funds. Due to the polluter pay principle established in the National Sanitation Policy for managing material waste, it’s important to identify waste generators, analyze their contribution to plastic waste, and assess what steps are needed to reduce their plastic waste. This analysis may be carried out by the producers and manufacturers themselves or in partnership with formal and informal economy players.

The Policy Task Force, which will be established in 2022, will investigate the best way to roll out a full EPR policy. Currently, the Ministry of Environment, Science, Technology, and Innovation has been supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in running webinars aimed at understanding how best to successfully launch an EPR policy. The webinars have covered topics such as establishing a register for packing producers, managing financial flows and payments within an EPR scheme, and the design of a suitable framework for the EPR policy.

Recommendation 6 (Theme 2): Introduce innovative financial instruments and investment structures

The Task Force proposes new structures and routines to explore innovative methods of extending funding for both upstream and downstream activities. These methods include introducing a blended capital approach, exploring green bond issuances, intermediated lending and how credit enhancement guarantees can be used to enable the system. It’s also essential to attract private capital in the form of equity to make this ecosystem more sustainable.

Through intermediated lending, international development banks provide funds to local commercial banks and other intermediaries, such as MSME funds, so they can lend to high-risk ventures at financially sustainable rates. British International Investment (formerly CDC Group) is currently involved in such an arrangement in the agriculture sector. CaBlank, also a Task Force member, has similar exposure in the renewable energy sector. The Task Force is also investigating whether equivalent structures can be extended to other financial services institutions, such as venture capital providers.

Another means of stimulating investment is through the provision of funds by the government to local banks for onward lending to players along the value chain, including start-ups run by women and young people. In such an arrangement, credit risk is shared between government and the banks, lowering the cost borne by the latter. Currently, the government uses such a structure to assist industries severely hit by COVID-19. For the plastics economy, this could reassure investors that the first-loss risk is shared.

It’s crucial that Ghana also seeks equity investments from other regional players. Encouraging regional market entrants can improve competition, lower waste management costs, and improve service quality. Equity investment could come from many impact funds operating both regionally and internationally, further building and increasing the technical capacity necessary for the transition to a circular economy.

The Task Force notes that the lack of microfinance institutions in waste management and recycling is a significant barrier to the sector’s improvement, particularly in the informal economy. Furthermore, understanding how to lend to this market, without clear processes around how funds are loaned, requires more analysis and thought. For the informal economy, investigation shows that the key issue is less about access to formalized financing instruments and more about creating sustainable and equitable access to the market. Most informal actors are involved in the collection phase, so additional effort is needed to include them in more of the plastics value chain, particularly upstream phases. This can be achieved, at least in part, through the NPAP stakeholder network, as well as the implementation of a number of the Task Force’s collaboration-focused recommendations.

Recommendation 7 (Theme 2): Develop a gender-responsive and inclusive framework and database for the identification and development of investable companies

The Policy Task Force, which will be established in 2022, will investigate the best way to roll out a full EPR policy.

Creating a framework is the first step, enabling prospective companies and projects to assess the attributes of bankable investments. The next step would be to create a database that helps link fund seekers and investors to make these investments happen.

There has been an increased appetite for circular economy projects regionally and globally, and this can be harnessed to facilitate the financing of R&D and the expansion of the plastic waste sector.

Task Force members believe that such a database should be owned by NPAP Ghana’s Secretariat (or similar function) and should:

- List all financial institutions that could fund local projects. These stakeholders could encompass entities such as international financial institutions, the Alliance to End Plastic Waste (AEPW), development institutions, and grant-giving foundations.
- Assess local companies and projects for inclusion in the database. The survey should include a special focus on identifying businesses owned and led by marginalized groups, particularly women and young people.
- Consider what financial instruments can be used within Ghana based on experience, best practice and the relevant legislation that exists or will be enacted.
**Recommendation 9 (Theme 3): Set up formal collection points for more efficient collection and recycling**

Formal collection points will assist in aggregating collection and recycling efforts. To create them, funds need to be made available to recyclers. Task Force members emphasize that fund providers must be more flexible with the types of funding they offer and the requirements to access it. For example, they must understand that many fund seekers, particularly women, and young people of limited means in the informal economy, might not meet the usual expectations around credit history and the like.

Innovative financial instruments, such as credit enhancement guarantees (refer to Recommendation 6 above), could be used to good effect. The EU, for instance, provides such guarantees through its ESFD+ instruments. Further sources of guarantees need to be identified and assessed for viability.

Furthermore, such financing should not only be available for formal collection points but also for the construction of community buyback centers. Building these centers in the heart of communities in which people live will cut down on transport costs incurred by formal and informal actors and boost recycling rates.

**Recommendation 10 (Theme 3): Comoditize recycled material**

Governments across the world are enacting legislation aimed at tackling plastic pollution. Mechanisms to aid in the reduction of plastic pollution will also require recycled plastics to become a factor in efficient global commodity markets.

There are several factors helping the global drive to commoditize recycled plastics markets. These include growing market participation, legislation enforcing the transition from virgin material usage and taxes levied on companies who persist with old, linear ways of operating.

To achieve commoditization, it’s necessary to establish standards for recycled plastics in collaboration with the intended off-takers, who may be large global manufacturers or small-scale companies in the value chain, and to set targets for recycled content in plastic products, in line with Recommendations 4 and 5.

Consideration should be given to the following questions:
- What legislation is being instituted in Ghana to make this market efficient?
- To what extent have avenues to formalize the relationship between large manufacturers and the informal economy through performance contracts been explored?
- How much progress has been made towards the standardization of recycled materials?
- Are there sufficient frameworks and sorting facilities to ensure that standardization can happen?
- How can companies incentivize locally sourced recycled plastic content and manufacturing?

The government should set up a fund solely for this purpose, either through a new legislative instrument or the reallocation of funds from the defunct Plastics Recycling Fund (Act 863) and the Sanitation and Pollution Levy (2021, Act 1064). Implementing this recommendation quickly and effectively will serve as a catalyst for the timely roll-out of circular economy-focused projects and provide the private sector with the confidence that the taxes they pay are being put to good use.

The Financing Task Force also advocates additional actions to be implemented in the short- to medium-term, if pursued with commitment by the relevant stakeholders and overseen by the Policy Task Force.

**C. Recommendations required for immediate market development**

Further to the prioritized recommendations above, the Financing Task Force also advocates additional actions to develop an enabling market. These recommendations can be implemented in the short- to medium-term, if pursued with commitment by the relevant stakeholders and overseen by the Policy Task Force.

**Recommendation 1 (Theme 1): Ensure the effective management of the Plastic and Sanitation Levy funds to support circular plastics related MSMEs, and prioritize women- and youth-owned or led businesses to scale their operations**

The Plastic and Sanitation Levy funds can bolster women- and youth-led and owned businesses, bridge the sector’s financing gap and encourage the growth of green and circular economy-focused jobs.

**Recommendation 2 (Theme 1): Provide clear incentives for the use and manufacture of locally produced recyclates**

Importing recyclates from international markets would be detrimental to the creation of an end-to-end market, and if these recyclates were used in single-use plastics, it would further compound the current pollution problem.

To incentivize investment in the sector, the government should introduce tax breaks and import duty exemptions for businesses engaged in upstream plastic activities. These measures should be aimed specifically at downstream players to incentivize more collection and recycling for upstream use. Additional upstream incentives should only be permitted for companies of a certain size (for example, companies with revenues under a specific threshold in order to benefit MSMEs rather than multinational companies) or companies that meet other specific criteria, such as being women-owned or having a clear SDG or socio-economic mandate. Larger businesses are likely to already have sustainability and corporate social responsibility (CSR) strategies that include goals to reduce virgin plastics use, and targeted incentives may skew competition in the value chain even further.

The Financing Task Force and NPAP Ghana Secretariat recommend the following approach, which should be instituted and overseen by organizations such as MESTI, for providing incentives for the use and manufacture of locally produced recyclates:

1. Mandate a graduated minimum for locally sourced recycled content aimed at achieving 100% recycled plastic use by 2040 for consumer-packaged goods.
2. Impose a graduated levy on virgin plastics that increases over time to incentivize locally sourced recycled plastics.
3. Provide tax holidays of five to 10 years for investors in scaled waste collection, processing, or recycling facilities.
4. Institute national recognition awards for companies that achieve key benchmarks. Examples could include locally sourced recycled plastic content use, reducing plastic usage through innovation or substitution (such as replacing plastic bottles with glass for table water in hospitality), and verifiable investment in plastic waste collection, processing and recycling facilities or initiatives.
**Recommendation 5 (Theme 1): Setting minimum targets for the use of recycled material in certain industries (aimed at large polluters)**

For this recommendation to be effective, a local PET bottle-to-bottle recycling plant is needed to provide recycled feedstock for onward use by the local PET-consuming manufacturing industries. Given no such company or facility currently exists, as an interim measure, the government could identify a local aggregator who can export used PET bottles to an international recycler and prioritize the importation of these recycled bottles for use by local manufacturers. Priority should be given to the establishment of a local PET bottle-to-bottle recycling operation to ensure a sustainable and competitive local recycling and reuse market. Ghana may also be able to reduce plastic pollution and the related costs of recycling by increasing the use of glass packaging where appropriate. With targeted investment to improve local capacity, and the known economies of scale that exist in the glass industry, refillable glass bottles can become a viable alternative to plastics in some channels.

**Recommendation 4 (Theme 1): Establishing clear quality standards and frameworks for the use of recycled material**

The Task Force suggest a two-pronged approach to implement this recommendation:

1. Establish a clear policy framework and technical standards for recycled plastics which are aligned to international best practice.
2. As part of the design process, standards for the use of recycled plastics need to be aligned with the International Organization for Standardization (ISO), as is the case with rPET, for example.
3. Support ongoing efforts to establish regional plastic recycling standards, expanding market opportunities for Ghana-based recyclers.

**Requirement of SAP (Theme 3): Increase recycling capacity and upstream innovations through partnerships that enhance technical and institutional capacity**

The International Finance Corporation (IFC) is working with financial sponsors to co-develop projects that reduce plastic pollution. In Nigeria, IFC advised a waste management project which sought to use recycled content upstream and adopt new circular business models.

To engage in similar business opportunities, the IFC requires a sponsor. The sponsor should have the experience and technical know-how to make the business venture bankable. Once bankable, IFC will invest the necessary capital as per their investment mandate. This kind of co-development partnership could be beneficial for the Ghanaian plastics industry as most projects aren’t currently bankable.

Financial institutions also need to develop their capacity to promote circular businesses and projects. For example, by supporting alternative delivery models or refit solutions that directly reduce plastic waste at source. This model has worked in other countries, such as the United States and Indonesia. Ghana could replicate and scale up these initiatives for its local context.

**Recommendation 11 (Theme 3): Develop a collaborative mechanism that allows large waste management companies, MSMEs and the broader informal economy to work together equitably**

Leveraging the capacity of the solid waste management industry could help reduce the financing required to allow smaller enterprises to grow. There are companies already collecting waste from the municipalities who have invested in equipment and human resources. Partnering with them through the local authorities under a local zoning framework could enable some quick wins and bolster collaboration throughout the downstream collection network. More work is required to develop a framework that ensures these partnerships are formed equitably. Currently, there are turf disputes concerning collectors entering areas not demarcated for their waste collection and larger companies are sometimes unable to access hard-to-reach collection areas.

**Recommendation 12 (Theme 3): Incentivize large manufacturers to partner with MSMEs and the broader informal economy**

Incentivizing and mandating large manufacturers to transition their business models and prioritize recycled content consumption in line with Recommendation 5 may help operationalize cross-sector partnerships. Increased demand would make collaborating with smaller-scale, formal and informal MSMEs and actors vital to ensure sufficient feedstock. As a consequence, demand for these smaller enterprises will be boosted, enabling them to scale their operations.

A regional example of entities partnering with other stakeholders is Wecyclers. A recycling company founded in Nigeria, Wecyclers operates a rewards-for-recycling platform that incentivizes people from low-income communities to benefit from recyclable waste. Aimed at informal collectors, subscribers are rewarded with points per kg of waste collected which can be redeemed for food and household items. In Ghana, and thanks in part to the coordination efforts of the NPAP, SAP operates a rewards-for-recycling platform that incentivizes people from low-income communities to benefit from recyclable waste. Aimed at informal collectors, subscribers are rewarded with points per kg of waste collected which can be redeemed for food and household items. In Ghana, and thanks in part to the coordination efforts of the NPAP, SAP partners with MSMEs and the broader informal economy. NPAP Ghana connected SAP with stakeholders across the plastics value chain, including waste picker organizations, MSMEs, multinational corporations and local authorities. Together, these stakeholders are designing a smart software system to connect waste collectors with potential buyers and recyclers. This software will link over 2,000 waste collectors across Ghana with local and international buyers, giving them greater access to the market and ensuring transparency so that they receive fair wages for their services.
Financial instruments that can be leveraged to unlock financing

A. Financial instruments that may apply to Ghana

Development Finance Institutions (DFIs)

In this section, we explore some of the facilities that DFIs, such as the European Investment Bank (EIB), British International Investment (formerly CDC Group), World Bank, Africa Development Bank (AfDB), Alliance To End Plastic Waste (AEPW) and the International Finance Corporation (IFC) offer clients. Ghana’s emerging plastics industry is strongly encouraged to enhance the government’s already stretched funds with these instruments as a means of achieving a circular economy.

Table 10: Summary of financial instruments offered by DFIs such as the EIB

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Type</th>
<th>Financing options</th>
<th>Eligibility</th>
<th>Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td>Loans for the private sector</td>
<td>Corporate loans</td>
<td>1. Project must align with the six priorities of the EIB (Climate and environmental sustainability, Innovation and skills, Infrastructure, Small and medium-sized enterprises, Cohesion, and Development)</td>
<td>1. Waste management companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Growth finance for mid-caps</td>
<td>2. Large corporates or groups</td>
<td>2. Recycling companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Project finance loans</td>
<td>3. Mid-caps</td>
<td>3. Plastics consuming industries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corporate hybrid debt</td>
<td>4. Special purpose vehicles for project finance (including PPPs and concessions)</td>
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<td></td>
<td></td>
<td></td>
<td>5. Investment costs (typically over a period of up to three years, but can be longer)</td>
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<td></td>
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<td></td>
<td>6. The EIB typically covers up to 50% of a project’s total cost</td>
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<td></td>
<td></td>
<td></td>
<td>7. Loans typically start at €25 million although in certain cases the EIB will consider lower amounts</td>
<td></td>
</tr>
<tr>
<td>Intermediated lending</td>
<td>Intermediated lending</td>
<td>Micro-enterprises</td>
<td>1. SMEs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SMEs and mid-caps</td>
<td>2. Large corporates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>National public sector agencies, departments, institutions, and ministries</td>
<td>3. Investors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional or local authorities</td>
<td>4. Venture capital firms</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>Venture debt</td>
<td>InnovFin - EU Finance for Innovators</td>
<td>1. SMEs and mid-caps</td>
<td>1. SMEs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>European Growth Financing Facility (part of EFSI)</td>
<td>2. Investments in research &amp; development</td>
<td>2. Mid-caps</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. A period of up to three years</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Minimum commitment of €7.5 million, covering a maximum of 50% of the total investment cost</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5. Companies must be able to demonstrate sound corporate governance, viable business plans and sustainable capital structures</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>6. Project must align with the priorities list of the EIB</td>
<td></td>
</tr>
</tbody>
</table>
**Table 10 Continued**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Type</th>
<th>Financing options</th>
<th>Eligibility</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment in debt and equity funds</td>
<td>Equity or debt funds (incl. mezzanine funds)</td>
<td>1. Growth capital funds 2. Venture capital funds 3. Microfinance funds 4. Social impact funds 5. Selective or granular debt funds 6. The EIB’s investment size can range from between €5 and €100 million 7. The EIB can also co-invest in investee companies if they are financed and managed by the fund the EIB has invested in</td>
<td>1. Venture capital firms 2. Micro-finance funds 3. National development banks 4. National promotional institutions such as GIZ</td>
<td></td>
</tr>
<tr>
<td>Investment in infrastructure and environmental funds</td>
<td>Co-investments</td>
<td>1. Private funds 2. Captive funds or investment platforms sponsored by public sector entities 3. Project must align with the priorities list of the EIB 4. The EIB’s investment size is between €25 and €60 million, but can reach €200 million under certain conditions 5. The EIB shall not hold the largest commitment in a fund and will not invest in open-ended (evergreen) funds unless there is a predetermined exit route for EIB’s investment 6. The EIB can also co-invest in investee companies if they are financed and managed by the fund the EIB has invested in. Both novice and experienced investment teams can qualify</td>
<td>1. Infrastructure and environmental funds such as GIZ</td>
<td></td>
</tr>
<tr>
<td>Credit enhancement for project finance</td>
<td>Project Bond Credit Enhancement 2. Senior Debt Credit Enhancement</td>
<td>1. Special purpose vehicles for project finance (including PPPs and concessions) 2. The credit enhancement product is designed for project finance in infrastructure projects 3. The bank will analyze the project’s eligibility, its economic and social viability, procurement, and concession agreement (if applicable) and credit risks, plus the financial and legal aspects of the bond issuance. 4. An appropriate financial infrastructure is required, including rating agency coverage (for Project Bond Credit Enhancement) and suitable legal precedents/frameworks. 5. Maximum size around €200 million or 20% of the nominal of credit-enhanced senior bonds</td>
<td>1. Large corporations</td>
<td></td>
</tr>
<tr>
<td>Guarantees in support of SMEs, mid-caps, and other objectives</td>
<td>Risk-sharing guarantees (linked and de-linked) 2. Supply chain (reverse factoring) guarantees 3. Trade finance guarantees 4. Micro-finance</td>
<td>1. Commercial banks 2. National promotional banks and institutions 3. Other financial institutions 4. Project must align with the priorities list of the EIB. The project can either be a. Pre-existent, where the guarantee comes with the obligation to create a new portfolio of loans at a pre-defined volume (a de-linked structure), or b. Created during an agreed ramp-up period (usually two to three years) or in place until the portfolio reaches a pre-defined volume (a linked structure)</td>
<td>1. Local commercial banks 2. Venture capital firms 3. SMEs</td>
<td></td>
</tr>
</tbody>
</table>

**Local financing institutions**

This section highlights products that are worth exploring and are offered by local financial institutions who are members of the Task Force.

**Table 11: Summary of financial instruments offered by some local financial institutions**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Type</th>
<th>Financing options</th>
<th>Eligibility</th>
<th>Institution</th>
<th>Portfolio size</th>
<th>Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Equity 1. Entrepreneurs must hold equity in the business 2. Invest in entrepreneurs with experience and a tested business strategy that will yield sustainable growth and profitability 3. Invest in start-ups, early stage, and growth companies, between $1m and $10m and a total employee count of not more than 250. 4. Have market leadership potential or can become a first-quarantae player within the investment period</td>
<td>Preference shares 2. Convertible debentures with ratchets</td>
<td>Oasis Capital Ghana Limited N/A</td>
<td>1. SMEs 2. Recycling companies 3. Waste Management companies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Alternative sources of investment

As well as the afore-mentioned sources of finance, circular economy initiatives can be financed through alternative routes. These are outlined in the following table.

Table 12: Summary of alternative sources of investment

<table>
<thead>
<tr>
<th>Funds Type</th>
<th>Description</th>
<th>Funders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philanthropy</td>
<td>Typical charitable fund</td>
<td>Gates Foundation</td>
</tr>
<tr>
<td>Commercial investors</td>
<td>Funding, grants, and other support from the corporate sector</td>
<td>Coca-Cola, PepsiCo, Dow, Nestle</td>
</tr>
<tr>
<td>Concessional capital</td>
<td>Typically grants and technical assistance or other form of catalytic capital through ministries or development agencies (through official development assistance)</td>
<td>KfW, giz, SNV, AFD, AfD, GIZ</td>
</tr>
</tbody>
</table>

CalBank has made extensive use of DFI funding over the years. In addition to offering credit enhancement guarantees, the bank also extends several other facilities, credit lines and loans (with a five- to 10-year horizon) in the green and renewable energy spaces. In the case of credit enhancement guarantees, the bank advances the full loan amount while the guarantee acts as collateral in the event of default. The bank also encourages lending to women led MSMEs in the renewable energy space. CalBank has a $32 million facility available for green financing and lends directly to private sector players, mostly through financing for working capital and capital expenditure.

Fidelity Bank also has extensive experience working with DFIs and using credit enhancement guarantees to invest in alternative energy.

Although there’s a growing appetite for local commercial banks to invest in the circular economy, access to collateral to de-risk loans and the formalization of MSMEs to help reduce risk remain among the biggest barriers.

The following recommendations to increase the participation of local financiers have been made by local commercial banks on the Financing Task Force:

- **Increase visibility of circular economy initiatives:** Currently, there’s limited visibility of bankable initiatives in the plastics sector. Creating greater awareness of opportunities could generate more interest from local financiers. Platforms such as NPAP Ghana can help showcase initiatives, through, for example, Recommendation 7.

- **Government-backed credit enhancement guarantees:** The government can extend credit enhancement guarantees through its agencies and can aid in de-risking investment in the sector. This can raise the appeal of investing and spread the risk. Furthermore, a roadmap that helps the government disburse loans would be beneficial.

- **Technical assistance:** Capacity building is a key requirement for financial institutions in Ghana’s transition to a circular economy. Financial institutions need to understand how to identify and mitigate the specific risks involved in investing in this emerging arena. The government can play a valuable role in this regard by, for example, providing consultancy support for an initial assessment of bankable companies. Similar support was previously offered to the agriculture sector as part of the Ghana Agriculture Sector Investment Programme (GASIP).

- **Work with incubators and accelerators:** Banks can finance circular economy initiatives through partnerships with incubators and accelerators, which in turn provide the technical assistance needed by businesses, particularly MSMEs, to scale and formalize their operations.

- **Ease of recovery:** The government can aid recovery by reviewing current legislation and creating faster mechanisms for banks to recover defaulted loans.

- **Digital inclusion:** Local banks, working with the government and other key players in the financing industry, such as credit bureaus, must make information accessible digitally.

B. The role local financial institutions can play

CalBank has a $32 million facility available for green financing and lends directly to private sector players, mostly through financing for working capital and capital expenditure.

For example, linking national smart identification cards to other relevant information, such as credit history, will boost access to funding for informal economy stakeholders.

For example, linking national smart identification cards to other relevant information, such as credit history, will boost access to funding for informal economy stakeholders.
Implementing the financing roadmap recommendations

To implement the roadmap’s short, medium, and longer-term recommendations effectively, the Financing Task Force will develop a robust delivery plan, institute delivery routines, and define data to track performance against the ultimate goal of unlocking financing for the plastics value chain in Ghana. The below section focuses on each of these three elements.

Figure 6: The three elements of an effective delivery plan

1. Well-defined strategy
2. Planning for results and delivery
3. Targets and trajectories
1. Delivery planning

A good delivery plan will outline the appropriate success indicators for each recommendation, assessing the Task Force’s progress against individual targets. It should include the following.

- **Strategy**: A delivery plan must clearly outline the strategies for achieving each recommendation. Strategies should be prioritized, and the Task Force must determine which strategies are most critical for success at every stage of delivery. A strategy leader should be assigned to oversee the implementation of each strategy.

- **Targets and trajectories**: A good delivery plan must make a clear connection between inputs (strategies) and outcomes (targets). A target translates a strategy into a numerical figure that’s moveable, measurable, and meaningful, while a trajectory is a series of interim targets that plot the planned path of the target between now and the target date. Trajectories can be used to estimate expected impact, which can aid monitoring and course corrections during implementation.

- **Delivery chains**: A delivery chain is the map of people and organizations and the relationships between them through which a given strategy will be implemented. It answers two questions:
  1. From the senior leader to the front line, who is involved in making sure a plan becomes a reality?
  2. How will they work together to make it happen?

Delivery chains are essential for planning (assigning responsibility for implementation at each stage and ensuring relationships with influential actors are developed), diagnosing issues and collecting implementation feedback.

- **Data and performance monitoring**: An effective and reliable data system is critical for tracking the impact that the recommendations from the financing roadmap have on unlocking financing for circular economy initiatives in Ghana.

2. Routines

Routines are the engine that drives delivery. Without regularly scheduled events that assess if delivery is on track, implementation will stall or fall off the agenda. Routines provide an important platform to:

- **Monitor performance**: understand if a system is on track to deliver its vision.
- **Diagnose and address problems**: identify surface issues that are inhibiting progress, analyze data to pinpoint causes and decide how to overcome challenges.
- **Establish a culture of accountability**: hold people to account for implementation progress.

To ensure that the Financing Task Force can drive implementation of the financing roadmap recommendations, the following routines should be considered:

- **Monthly updates**: these meetings can be used to review implementation progress, identify and solve problems, and agree on next steps.
- **Quarterly stocktakes**: these meetings can be used to review progress across all priorities. Stocktakes ensure that stakeholders responsible for implementation are accountable for performance. They also provide a platform to escalate challenges that may need to be addressed by a broader group.

3. Data and performance monitoring

An effective and reliable data system is critical for tracking the impact that the recommendations from the financing roadmap have on unlocking financing for circular economy initiatives in Ghana.

Figure 7: Elements of a good data system

![Data System Diagram](image)

- **Collect data**
- **Analyze data**
- **Report and explain the data**

Elements of a good data system:

1. Identify success metrics + leading indicators
2. Collect data
3. Analyze data
4. Data-driven action
5.快- able to access relevant data regularly and in real time.
7. Accurate – gives confidence that the data reflects what’s happening on the ground.
8. Cleared – provides understandable insight with unambiguous implications for everyone in the plastics value chain.
10. Transparent – presents reliable and publicly available data.

Although delivery in any field is challenging, with sufficient commitment from Financing Task Force members, the financing roadmap provides a sound platform for moving beyond ideation and strategy into transformative change that can finance an emerging circular economy in Ghana.
To mitigate the increase in plastic waste generated as a consequence of COVID-19 and to enable sustainable plastic recycling, a number of adjustments to policies and public and private sector commitments need to be made, including demand-side policy measures.

When the first few cases of COVID-19 were identified in late 2019, few could have anticipated the lasting effects a pandemic would have on the global economy. These effects have included persistent lockdowns and increased consumption of plastic products such as personal protection equipment (PPE). Plastic pollution has been significantly impacted by COVID-19 as the explosion in the use of plastics products, including face masks, multiplies the likelihood of more waste entering water bodies.

In addition, there is a correlation between the price of crude oil and the cost of recycling. As the crude oil price fell during the early part of 2019, the price of virgin material (an oil by-product) decreased, disincentivizing the use of more expensive recycled plastic.58 When crude oil prices are low, it’s less likely that potential producers of recycled plastics will invest in capacity, and plastic manufacturers will have little incentive to use more recycled plastic content in their production.

To mitigate the increase in plastic waste generated as a consequence of COVID-19 and to enable sustainable plastic recycling, a number of adjustments to policies and public and private sector commitments need to be made, including demand-side policy measures. The Task Force recommendations acknowledge this, specifically by prioritizing the development of a market for recycling and recycled content. More analysis is required to assess the effects of COVID-19 on the plastics economy in Ghana, but the Task Force recognizes that these effects are likely to slow progress towards the NPAP’s goals. In order to succeed, collaboration and stakeholder commitment are more important than ever.
### Table 12: Summary of prioritized cross-cutting recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>What does success look like in a year?</th>
<th>Who are the main stakeholders?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation 3:</strong> Develop and implement an EPR policy for the full plastics value chain</td>
<td>Details of a voluntary EPR programme are developed and launched. The intent is to move from a voluntary policy to a mandatory one after private sector interest is assessed and capacity for managing and implementing the EPR policy is built.</td>
<td>Key actor(s) in Task Force: MESTI. Other stakeholders: Informal economy collectors, Recyclers, Manufacturers and importers, Ministry of Trade and Industry, Ministry of Finance.</td>
</tr>
<tr>
<td><strong>Recommendation 6:</strong> Introduce innovative financial instruments and investment structures</td>
<td>Financiers will have taken active steps to build technical capacity in order to effectively operate within the circular economy. In conjunction with Recommendation 7, financiers have better oversight of the types of projects that are in development and can assess their suitability.</td>
<td>Key actor(s) in Task Force: Private sector banks (CalBank, etc.), Development institutions (EIB, AEPW, IFC, etc.). Other stakeholders: Ministry of Finance, MESTI, Venture capital providers, Impact funds.</td>
</tr>
<tr>
<td><strong>Recommendation 7:</strong> Develop a gender-responsive and inclusive framework and database for the identification and development of investable companies</td>
<td>Companies and projects requiring investment can be paired with investors through this central database.</td>
<td>Key actor(s) in Task Force: Alliance To End Plastic Waste. Other stakeholders: Impact funds, MSMEs through the value chain, Development banks.</td>
</tr>
<tr>
<td><strong>Recommendation 9:</strong> Set up formal collection points for more efficient collection and recycling</td>
<td>In conjunction with Recommendation 6, innovative financial instruments have been developed that target informal economy players. Furthermore, investigations have been conducted to determine which community hubs would be suitable for collection points and community buyback centers.</td>
<td>Key actor(s) in Task Force: Informal economy collectors, Recyclers. Other stakeholders: Large manufacturers.</td>
</tr>
<tr>
<td><strong>Recommendation 10:</strong> Commoditize recycled material</td>
<td>Policy is in place and standards are communicated to actors in the value chain. Large manufacturers have formal contracts with collectors for feedstock off-take.</td>
<td>Key actor(s) in Task Force: MESTI, Ministry of Finance. Other stakeholders: Ministry of Trade and Industry, Informal collectors, Large manufacturers.</td>
</tr>
</tbody>
</table>
Table 13: Summary of prioritized cross-cutting recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>What does success look like in a year?</th>
<th>Who are the main stakeholders?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation 1: Ensure the effective management of the Plastic and Sanitation levy funds to support circular plastics-related MSMEs and prioritize women- and youth-owned or led businesses to scale their operations</td>
<td>The funds collected by the Plastic and Sanitation levy funds are reallocated into a functional fund that serves the plastics value chain. Details of the various eligible beneficiaries are identified and communicated to the plastics value chain.</td>
<td>Key actor(s) in Task Force: MESTI Ministry of Finance Other stakeholders: All stakeholders of the plastics value chain</td>
</tr>
<tr>
<td>Recommendation 2: Provide clear incentives for the use and manufacture of locally produced recyclates</td>
<td>Incentives are established and communicated to the potential beneficiaries. Mandated recommendations, levies and recognition for first movers are in place to bolster the use of locally produced recyclates.</td>
<td>Key actor(s) in Task Force: MESTI Ministry of Finance Other stakeholders: Informal economy collectors MSMEs Ministry of Trade and Industry Large manufacturers</td>
</tr>
<tr>
<td>Recommendation 5: Setting standards for the use of recycled material in certain industries (aimed at large polluters)</td>
<td>Government has formulated a policy and identified a local aggregator who can lead progress in PET bottle recycling. The desired recycling standards are communicated to the value chain.</td>
<td>Key actor(s) in Task Force: MESTI Other stakeholders: Large manufacturers (GRIPE, etc.) Recyclers Informal economy collectors</td>
</tr>
</tbody>
</table>

Table 14: Summary of cross-cutting recommendations for longer term implementation

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>What does success look like in a year?</th>
<th>Who are the main stakeholders?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation 4: Establishing clear quality standards and frameworks for the use of recycled material</td>
<td>Standards are agreed upon and are aligned to the International Organization for Standardization (ISO), as is the case for rPET, for example.</td>
<td>Key actor(s) in Task Force: MESTI Other stakeholders: Ministry of Trade and Industry Manufacturers and importers (e.g., GRIPE) Recyclers</td>
</tr>
<tr>
<td>Recommendation 8: Increase recycling capacity and upstream innovations through partnerships that enhance technical and institutional capacity</td>
<td>Partnerships can be identified through the database established with Alliance To End Plastic Waste, and through this, development banks such as IFC have a pathway to develop capacity within the value chain.</td>
<td>Key actor(s) in Task Force: Development banks (e.g., IFC) AEPW Other stakeholders: MSMEs Large manufacturers (e.g., GRIPE)</td>
</tr>
<tr>
<td>Recommendation 11: Develop a collaborative mechanism that can allow large waste management companies, MSMEs and the broader informal economy to work together equitably</td>
<td>A framework to guide how these partnerships can be equitably formed is developed to combat turf disputes.</td>
<td>Key actor(s) in Task Force: Large manufacturers (GRIPE, etc.) Other stakeholders: Informal economy collectors Recyclers Waste management companies MSMEs</td>
</tr>
<tr>
<td>Recommendation 12: Incentivize large manufacturers to partner with MSMEs and the broader informal economy</td>
<td>More partnerships and accomplishments, such as the SAP software success, are fostered through the NPAP network.</td>
<td>Key actor(s) in Task Force: NPAP Ghana (coordination only) Other stakeholders: All stakeholders across the plastics value chain</td>
</tr>
</tbody>
</table>
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NPAP Ghana financing roadmap
Public funding includes government of Ghana funds, central government funds, internally generated funds, statutory funds, and project funds. The segments of funding have been grouped under these broad categories to enhance the comparison between the allocation of the funding sources.

This section is a summary of the relevant points of NPAP Ghana’s action roadmap: Ghana Plastics Action Partnership, 2021. A Roadmap for the Reduction of Plastic Pollution in Ghana


GhanaWeb, 2021. Ghana’s economy ranked 8th biggest in Africa


In addition to desktop research, interviews were conducted with Financing Task Force members to inform the insights in this section.


SDN, BlackRock. BlackRock Circular Economy Fund Class A2 USD, November 2021 Factsheet 2021

BNP Paribas. BNP Paribas Easy ECPI Circular Economy Leaders, October 2021 Factsheet 2021


BnP Paribas. BNP Paribas Easy ECPI Circular Economy Leaders, October 2021 Factsheet 2021

In this context, a housing register helps form the basis of identifying the households in a particular area and being able to attribute waste management costs to identifiable houses and users.


Schröder and Roes. Financing an inclusive Circular Economy: De-risking investments for circular business models and the SDGs. 2020

Econisia – Zero Waste Living Lab

GASIP is a programme by the Ministry of Food and Agriculture designed to provide the framework and institutional basis for long term engagement and supplementary financing for scaling investments in value chains in Ghana. The overall goal of GASIP is to contribute to sustainable poverty reduction in rural Ghana through enhancing agribusinesses profitability and climate resilience.


Therefore, to fund banks and appropriate funds such that they use the finance to support corporate, SMEs, start-up etc, lending

Table 9 displays EIB specific products.

Information provided in this column speaks to WHO and WHAT is eligible to be financed by the EIB

In 2021, the Government of Ghana was the beneficiary of a support facility of €170 million from the EIB for the new National Development Bank of Ghana. The facility represents the largest engagement in Ghana by the bank and the most significant support for a national development institution in Africa. Once operational, the National Development Bank of Ghana will increase access to long-term finance and boost job creation in key sectors, including agribusiness, manufacturing, ICT, tourism, and other services across Ghana

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Econisia – Zero Waste Living Lab


Koinpack – Zero Waste Living Lab

To assess the suitability of each of the 12 recommendations identified, the Financing Task Force used a 2x2 prioritization matrix, ranking each recommendation across the degree of implementation difficulty, and the level of expected impact.

GIZ is an international development agency headquartered in Germany with experience in international development cooperation, and specific expertise in the development and rollout of EPR programmes
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