



# **REPORT OF THE FIRST NATIONAL PET FORUM & EXHIBITION**

**Strengthening the PET value chain in Kenya for a Clean and Healthy Environment**

**9th November 2018, KICC, Nairobi, Kenya**

## TABLE OF CONTENTS

LIST OF ACRONYMS	2
INTRODUCTION	3
FORUM OBJECTIVES	3
OVERVIEW ON PET WASTE MANAGEMENT IN KENYA	4
OPENING	6
EXPERTS' INPUT AND PANEL DISCUSSIONS	10
The Strategic Sector Cooperation (SSC)	10
CHALLENGES IN THE PLASTICS VALUE CHAIN	11
KENYA PET RECYCLING COMPANY (PETCO)	11
PETCO's Business Model	11
MR. GREEN AFRICA	13
CLEAN GREEN KENYA	14
From Plastic Waste to Construction Material	14
INPUT FROM INDUSTRY	15
Contribution on experiences and challenges in PET Waste Management	15
Awareness	17
Policy	17
Finance	17
Innovation	18
Take Back Scheme	20
Key Challenges	20
Strategies to overcome challenges	20
Opportunities	21
COLLECTION OF PET PLASTIC IN KENYA	22
Challenges	22
Solution	22
Strategies	22
INFORMATION & DATA	24
Key insights and remarks:	24
KEY TAKE AWAY POINTS AND CONCLUSION	25
IN THE NEWS	26
FULL FORUM VIDEO	26
THE DAY IN PICTURES	27
EVENT PARTNERS	28

## LIST OF ACRONYMS

UN - United Nations.

EPR - Extended Producer Responsibility.

FOC - Framework of Cooperation.

NEMA - National Environment Management Authority.

PET - Polyethylene Terephthalate.

NGOs - Non-governmental Organisations.

KAM - Kenya Association of Manufacturers.

PETCO - Kenya Pet Recycling Company.

EMCA - Environmental Management and Coordination Act.

SSC - The Strategic Sector Cooperation (SSC).

P4G - Partnering for Green Growth and the Global Goals 2030.

NTSA - National Transport and Safety Authority.

KAWR - Kenya Association of Waste Recyclers.

GISP - Green Economy strategy and implementation Plan.



## INTRODUCTION

Polyethylene Terephthalate (PET) is popularly used for packaging food and beverages, pharmaceutical and personal care products due to its inert and shatterproof nature. PET is also light weight and is therefore easier to transport. Despite its positive properties, public concern has been raised regarding pollution associated with improper disposal of PET bottles due to its non-bio degradable nature especially when littered indiscriminately on land and in water bodies. **PET however, is 100% recyclable and is ranked the most recycled plastic in the world, but current data shows that globally only 15% of PET is being recycled.**

A partnership between KAM, the Ministry of Environment and Forestry (ME&F) and the National Environment Management Authority (NEMA) was established. It was envisioned that through this partnership, both the Public and Private sector would support each other in the management of PET in Kenya.

The 1<sup>st</sup> National PET forum and Exhibition designed to help stakeholders to understand the PET value chain in Kenya in a broader perspective took place on 9<sup>th</sup> November 2018 at the KICC, Nairobi. The forum involved a high level policy dialogue on the challenges and potentials within the management of PET in Kenya. The high level dialogue discussed challenges of PET management and proposed appropriate interventions. It drew membership from PET resin importers, PET collectors, PET transporters, PET Users, PET Manufacturers and PET Recyclers and featured exhibitions of alternative uses of PET and recyclers.

To promote this initiative, raise awareness around the possible models for EPR, Take Back Schemes and Recycling, this one day **1<sup>st</sup> National PET Forum and Exhibition** was organised under the theme *Strengthening the PET value chain in Kenya for a Clean and Healthy Environment.*

## FORUM OBJECTIVES

1. Sensitization on the importance of the Framework of Cooperation (FoC) between the Ministry and KAM with particular emphasis on the implementation of the take back scheme.
2. Understand the PET problem globally and locally and the initiatives required to address the challenge.
3. Strengthening engagement frameworks & fostering collaborations between various stakeholder.
4. To explore the existing policy gaps on PET waste management.
5. Explore research needs for the PET subsector.
6. Sharing experiences regarding PET waste management focusing on: Current status, Policy, Research and development, Opportunities, Best practices & Stakeholder analysis.

## OVERVIEW ON PET WASTE MANAGEMENT IN KENYA

There has been a number of interventions in Kenya on PET waste management from both, the Private Sector and the Government.

Some of the key policies and legislation guiding waste management in Kenya include:

- Constitution of Kenya 2010
- Kenya Vision 2030
- Sessional Paper 10 of 2014 on Environmental Policy
- EMCA Cap 387 and the waste management regulations (2006).
- National Solid Waste Management Strategy 2012
- Gazette notice 2356 of 28<sup>th</sup> February 2018 banning the production, import and use of polythene bags
- Framework of Cooperation between ME&F, NEMA and KAM on establishment of Take Back Schemes for PET bottles.
- Green Economy strategy and implementation Plan (GISP) 2016-2020

Existing climate change plans such as National Climate Change Response Strategy, 2010, National Climate Change Action Plan, 2013-2017, National Climate Change Action Plan, 2018-2022, National Adaptation Plan, 2015-2030, Mitigation Technical Analysis Report 2018-2022 and the Adaptation Technical Analysis Report 2018 -2022 extensively address the issue of plastic waste management.

*Full notes by Dr. Ayub Macharia [here](#)*



# Opening Session

## OPENING

Representing the Cabinet Secretary Ministry of Environment and Forestry Hon. Keriako Tobiko, Mr Mohammed Elmi the Chief Administrative Secretary who officially opened the session thanked the conveners of the event and expressed the Ministry's support to programs such as this that contribute in ending the plastic waste Menace.

On behalf of the Director General NEMA, Mr. Mamo B. Mamo said that NEMA is concerned as it sees a rise in littering of PET bottles. Building on the successful implementation of the single use plastic carrier bags management in Kenya, he is quite hopeful that we will handle the issue of PET management when all stakeholders like KAM, Ministry of Environment and NEMA to fully implement the frame work cooperation. The framework of cooperation is an agreement between KAM, Ministry of Environment and NEMA to bring together stakeholders in the PET value chain, to set up an EPR scheme that will help the country get rid of the PET waste menace. The forum was an important step towards implementing this framework as it seeks to engage sector players and the general public. [Full speech here](#)

He said that PET is likely to pose negative impact to the environment if not well managed, through:

- Their inability to decompose this affecting soil quality
- The enormous littering of PET bottles in various parts of the country with negative aesthetic value
- The blockage of sewerage and water drainage infrastructure, causing floods during the rainy season and the resultant remediation costs.
- Public health costs - plastics serve as breeding grounds for mosquitoes and other vectors
- Pollution of coastal and marine environment and the resultant cost on tourism, marine food and health.
- Air pollution when disposed of by open burning.

Kenya Association of Manufacturers Chairman Mr. Sachin Gudka expressed his pleasure in taking part in the First National PET forum. He thanked the Ministry of Environment and Forestry for seeing the value of organizing such a forum to engage on PET management, a topic being discussed not only nationally but one that has taken center stage globally.

Mr. Gudka stated that PET's popularity as a packing material for industry emanates from its favorable properties which include:

- Lightness - this is key for both the consumer and product transport and logistical arrangements
- Safety - PET is not only hygienic but also shatterproof and safe with children for example
- Recyclable - the bottle can be re-used and the plastic itself is recyclable for many cycles

- Lower carbon and ecological footprint in its life cycle in comparison with some of its alternatives

Nonetheless, industry recognizes this packaging material's negative effects on the environment, the majority of which relate to post-consumer waste and littering.

"If we are to continue enjoying the great benefits of using PET, we must as a society also take responsibility for the disposal and recycling of the material to avoid the negative impact on the environment", he said.

Some of the solutions he highlighted to address this problem include:

1. Educate the public on the importance of maintaining a clean environment, and the significance of individual actions to this cause. The European experience was cited where despite using up to ten times more plastic per capita, social consensus ensures rubbish is properly disposed of.
2. Both the national and county governments should improve on waste management in general, in addition to addressing plastic waste. More so, as the country continues to urbanize, with consumers obtaining more and more food and drink from shops as opposed to the field and farm.
3. Industry has a role to play, by complimenting the role of government and consumers. "We too have a responsibility for this environment we operate in and to our consumers. Environment and sustainability are no longer luxuries that only large companies must consider, but a requirement for each and every institution."

Under the Framework of Co-operation and through the PET sub-sector KAM has been able to enhance awareness creation amongst its members and the public, build relevant alliances and partnerships and gather information and knowledge that KAM believes will drive the process forward. Some examples of industry initiatives include:

- Promotion of recycling and anti-littering through various media channels
- KAM and its members have been involved in clean-up drives in partnership with various county governments and partners
- Youth engagement activities such as;
  1. KAM partnership with Dandora Hip-Hop City under the stewardship of a renowned Kenyan artist Juliani. This is a community-based initiative that is working to keep Dandora free of PET litter. KAM continues to explore similar initiatives with youth groups across the country by incorporating community-based initiatives geared toward strengthening waste management.

- KAM has initiated an environmental competition focused on PET, with the Wildlife Clubs of Kenya that will be rolling out in early 2019.
- KAM has signed agreements with the National Transport and Safety Authority (NTSA), and the Kenya Association of Waste Recyclers (KAWR). These are intended to address the prevalent practice of roadside littering. The KAWR is committed to putting members to task on their role in the collection of PET deposited at designated collection sites.
- KAM has also engaged the Council of Governors and is especially keen to work with them on how to make the collection business easier to conduct within and across counties and in particular the transportation of waste PET across counties

Mr. Gudka concluded by emphasizing the importance clear policy and regulation for the plastics sector that will enable investment in new recycling technologies and systems leading to the creation of jobs and enriching the manufacturing contribution to the economy in line with the governments BIG4 Agenda.



# Experts' Input and Panel Discussions

## EXPERTS' INPUT AND PANEL DISCUSSIONS

### The Strategic Sector Cooperation (SSC)

The session was introduced by Mr. Jacob Fink Ferdinand, The Growth Counsellor at the Danish Ministry of Foreign Affairs, Embassy of Kenya. He highlighted the importance of cooperation between stakeholders; governments, consumers, manufacturers (private sector) in tackling the waste problem in the country. He shared best practices from Denmark and some of the programs that the Danish government is involved in in Kenya to contribute in the establishment of better waste management such as the [P4G](#) platform.

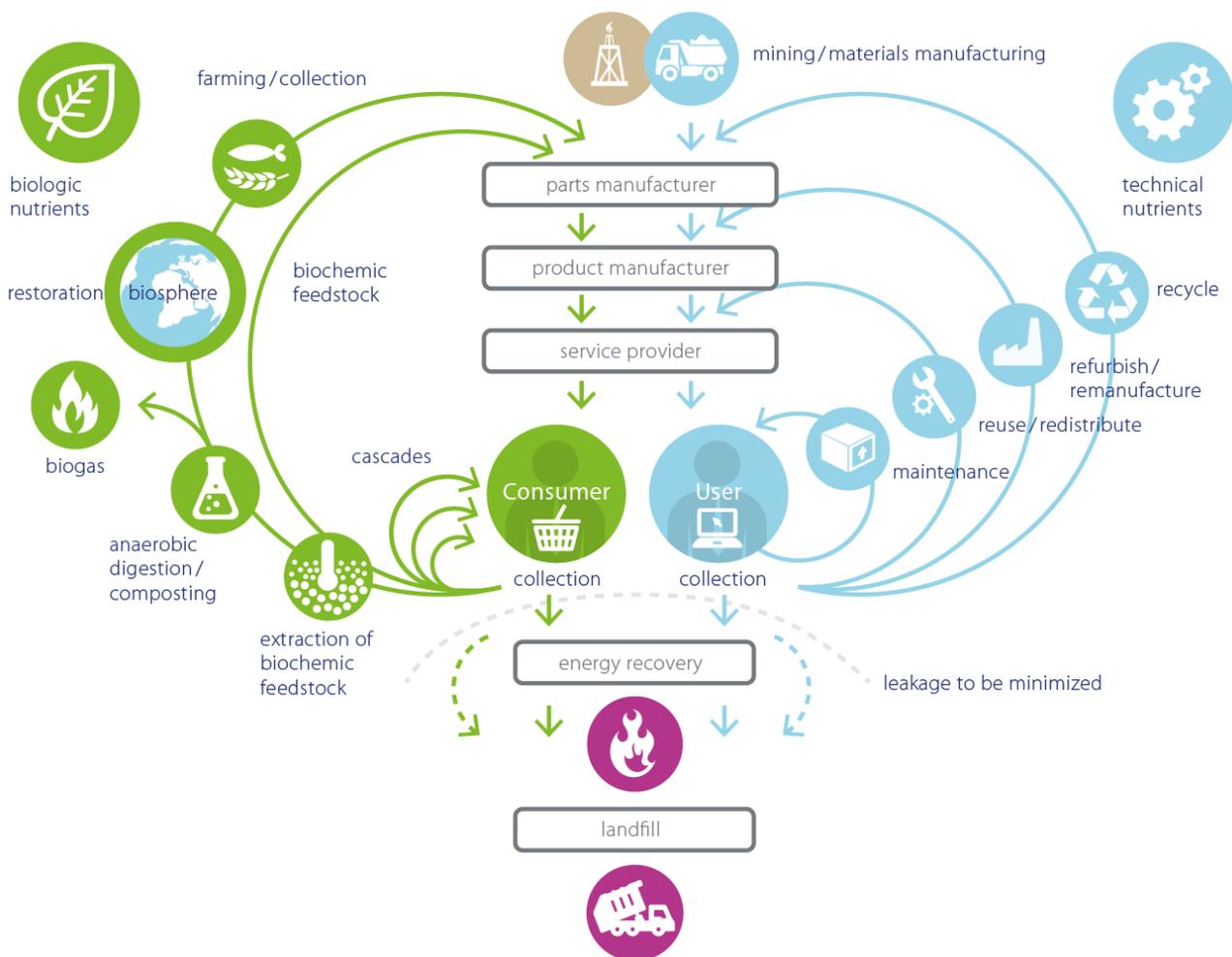


Figure 1: Circular Economy Butterfly model

[Full Presentation here](#)

## CHALLENGES IN THE PLASTICS VALUE CHAIN

This session was facilitated by Mr. Bernard Merx, a Social entrepreneur, Co - founder Waste Free Oceans, Honorary President Plastics Recyclers Europe and the Board of Directors Member PLASTIX Denmark. He is a plastics recycling expert and assists companies to find pragmatic solutions for improved sustainability in the international rubber and plastics industry Specialties: plastics recycling, compounding, converting project management.

In a few slides, Bernard shared his experience, opportunities and challenges in managing PET Waste across Europe. He highlighted the fact that people are willing to bring their waste close to a collection point (even if it has no value, as it is part of education, but will then not separate. This material will therefore go to incineration instead of recycling). Products that have a value (like deposit) are NOT in those bins he said. Public services are not very flexible to cope with peak moments (like festivals, or weekend extra preventive collections). In Copenhagen and New York, PET bottles have a value attached to them so consumers tend to sort them hence the ease to recycle. The Netherlands does not have value on the 500ml PET bottle hence it ends up in most cases as litter.

[Full Presentation here](#)

## KENYA PET RECYCLING COMPANY (PETCO)

Speaking at the forum, Ms. Joyce Gachugi, CEO PETCO Kenya explained the PETCO model and who PETCO is. PETCO is an industry led extended producer responsibility (EPR) organization. It was established in December 2017 by guarantee. Its mission is to make sure that there is an ongoing monetary value for post-consumer PET in order to grow the collection and recycling of PET bottles into the future. It is financed by way of voluntary EPR fee and Grants-in-Aid.

### PETCO's Business Model



Figure 2: The PETCO Value Chain

PETCO's model is centred around two key activities:

- a) Subsidy Mechanism
- b) Consumer Awareness

**PETCO Recognises:**

That, recycling is a commodity business exposed significant cycles;

- That, in order to sustain & grow PET bottle collection, there is a need to create constant demand;
- That, recyclers need support during adverse economic cycles;
- That, funds are needed from industry to support recyclers.

**EVERY BOTTLE  
MAKES A DIFFERENCE**



[Full Presentation here](#)

## MR. GREEN AFRICA

Ms. Stephanie Atika, the Head of Supply Chain at Mr. Green Africa described the company’s human-centred business model that illustrates shared value at its best. Mr. Green Africa incentivises marginalised waste pickers & base of the pyramid stakeholders by offering premium prices and added benefits, to provide a continuous supply of valuable recyclables which in turn creates pathways out of poverty for them, while simultaneously creating a positive environmental impact. The company then processes the recyclable material into valuable raw material and feeds it back into plastic manufacturers’ supply chain to enable them to achieve their circular economy goals, and benefit from raw material cost savings.

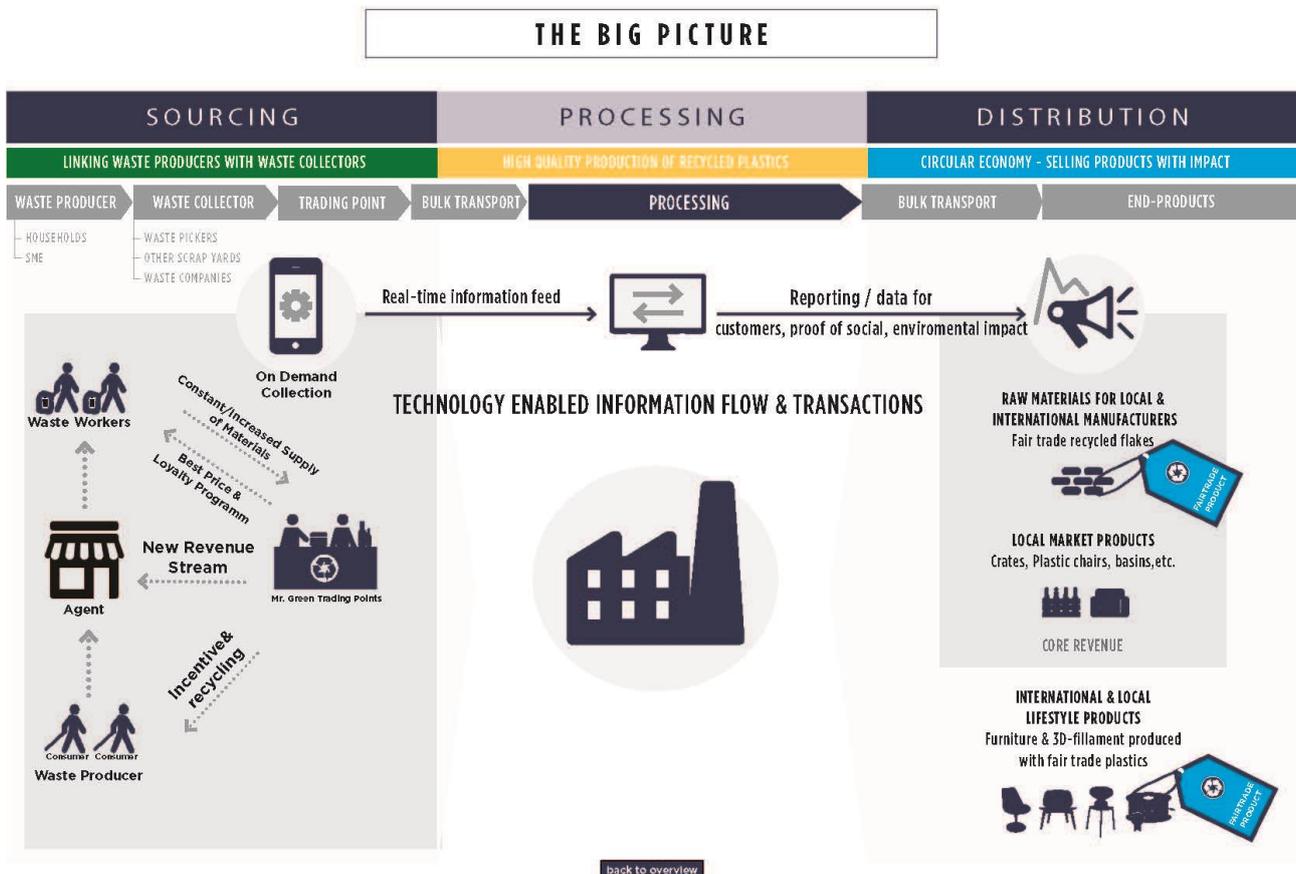


Figure 3: Mr. Greens Model illustrated

[Full Presentation here](#)

## CLEAN GREEN KENYA

### From Plastic Waste to Construction Material

CGK (Clean Green Kenya) was initiated by three companies active in the plastic value chain (RAMCO, King Plastic and Alternative Energy Solutions Ltd). CGK aims to conduce coordinated efforts between value chain actors in different waste streams (starting with plastic) that lead to “circular economy” models and give plastic manufacturers the concrete opportunity to operationalize their Extended Producer Responsibility (EPR) in the plastic value chain.

CGK has teamed up with a consortium of consultants working for a “Climate Tech Business Diffusion Programme” of the Worldbank/InfoDev in Kenya. This programme aims to facilitate international business model diffusion by adapting validated products, services and operating models to new markets in other geographies (such as Kenya), as part of its Global Climate Technology Programme.

Facilitated by CGK and WB consultants, a group of private sector frontrunners have put their minds together to rethink the plastic recycling chain in Nairobi. A number of co-creation sessions focused on mapping the value chain, identifying the major weaknesses and proposing innovative business solutions. The group formed a taskforce and jointly decided to first focus on value addition of recycled plastics, as this can give a boost to the performance of the whole value chain.

The project aims to boost the performance of the plastic waste value chain by establishing market driven linkages between the plastic waste sector and the construction sector. It will have a phased approach, starting with a pilot of 6 months to prepare the ground for the second phase, during which the consortium of companies will scale their businesses into an “One Stop Shop” of high quality waste based construction materials.

In the pilot phase the companies in the taskforce agree to cooperate and provide mutual support towards a feasible scale up model of their companies, by:

- Prototyping and/or fine-tuning new technologies & designs for value addition;
- Developing joint marketing & awareness campaigns for the introduction of existing and new waste based products to various corporate customer segments within the construction market of Nairobi;
- Developing joint lobby & advocacy efforts towards industry and government;
- Validating the business case and business model for the scaling of this portfolio of waste based construction products (PP/PE based and PET based);
- Developing a finance proposition and acquire financiers for the scale up venture (subsidy, investment, loans).

[Full Presentation here](#)

## INPUT FROM INDUSTRY

### Contribution on experiences and challenges in PET Waste Management

This was carried out in four groups that actively provided insights and contributed with experiences and challenges in PET Waste Management. The participants were comprised of sector players such as; Producers, Users, Collectors & Transporters and Recyclers.

The objective of this session was to capture the main Challenges in PET Waste Management; strategies to overcome challenges and opportunities in the following areas:

1. Take Back Scheme
2. Collection
3. Awareness
4. Data/Information

#### Moderated by

- Karin Boomsma, Sustainable Inclusive Business
- Faith Temba, KAM (PET subsector)
- Llyord Gitau, Sustainable Inclusive Business
- Gurpreet Kaur Kenth, Megh Group & T3

The sessions established the following:

# Awareness



## Awareness

### Policy

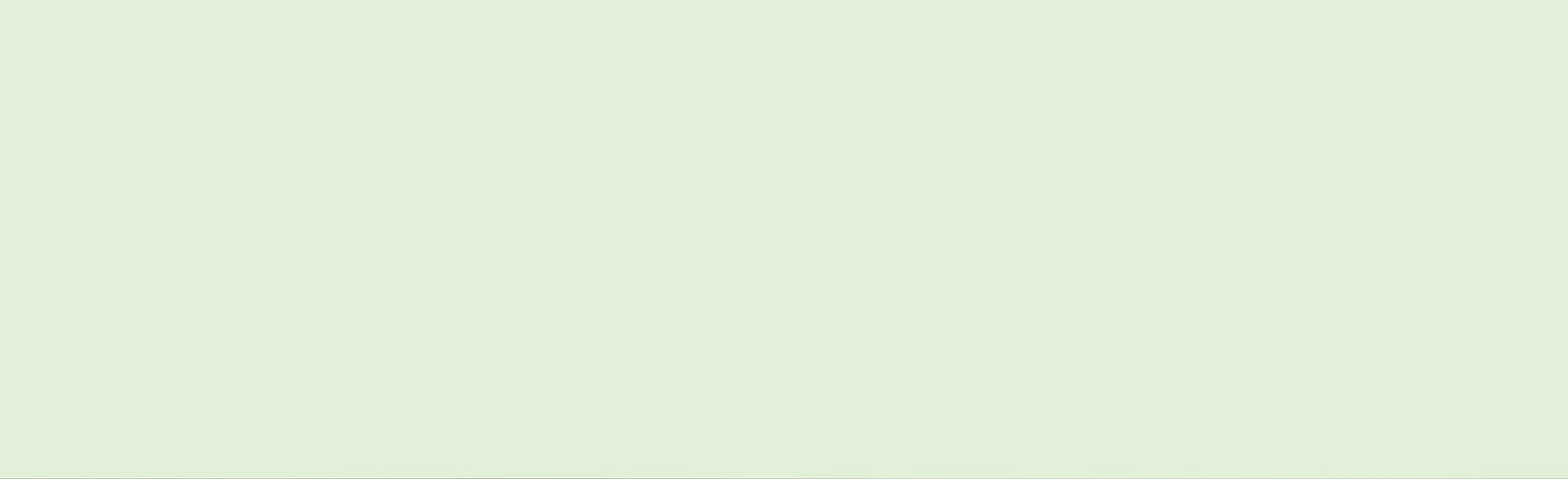
1. Align National policies on PET and Waste Management with County policies: The delegates expressed concern that the National Waste Management policies and those of county governments are not aligned. The proposal is to have a national policy framework on waste disposal and management that covers PET adopted by the 47 County governments.
2. Engage all stakeholders in policy development and establish proper communication channels to reach all sector players: The sector players expressed their frustration at policy makers for not involving them in the making of policies that affect the plastic and PET value chain. They strongly recommend that policy makers involve them.
3. Embed waste management into the school curriculum: A revision of the current school curriculum to incorporate a compulsory subject or unit in Environmental management that teaches pupils good waste management practices is important.
4. Create consumer awareness (on the negative effects of PET to the environment, the same way we do with cigarettes) to stimulate behavioural change: This would involve a requirement to all PET manufacturers and users to label the bottles in legible words such as '*improper disposal of this bottle could lead to the death of fish in the ocean*'

### Finance

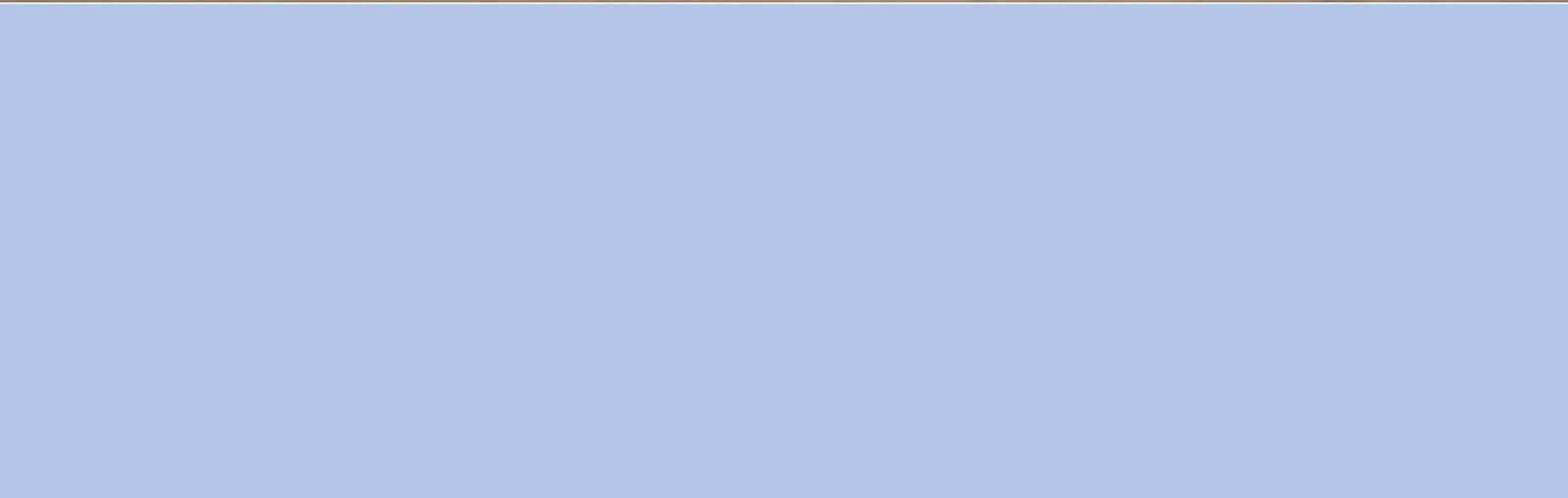
1. Incentivise the take back schemes and create value in PET waste: It was observed that it is easier to throw away a PET bottle than it is a glass bottle because a glass bottle has value attached to it. This should be done for PET too.
2. Create PPPs on management of waste, that include collection and recycling: Partnerships between governments, private sector and other stakeholders could lead to a sustainable solution to the PET waste menace that includes collection, sorting, recycling/upcycling. The private sector could provide the money while governments create an enabling environment.
3. Directing National and County funds to create campaigns and awareness on the negative effects of PET to the environment and how to manage it: Campaigns championed by governments e.g. fight against polio etc. have been tremendously successful. Governments should support similar programs.
4. Subsidies or exemption of duty for importation of recycling machinery: Setting up recycling facilities is expensive since most equipment is imported. Government can introduce tax rebates or subsidies to importers of these machinery.
5. Incentivise businesses that use recycled PET.

## *Innovation*

1. Use the civil society and county governments to raise awareness on existing innovations that rid us off PET waste.
2. Publicise waste management solutions and innovations through media. Additionally, use social media to raise awareness on waste management and the negative impact of poor disposal of waste.
3. Introduce a knowledge and resource centre, online and offline, where the public can access knowledge and information on waste management and sustainable solutions to PET waste management.
4. Create school and community competitions on waste management to encourage young people to get involved.
5. Create a waste management innovation and solutions award. This is to motivate and recognise those whose efforts are towards creating solutions to the plastic waste menace.
6. Empower institutions of higher learning to research on solutions and alternatives.
7. Create school programs, e.g. PETs for books programs that encourage school going children to reuse or bring PET to a collection centre in exchange for pencils, pens or books.
8. Use art, music and theatre to sensitise communities.



# Take Back Scheme



## Take Back Scheme

### *Key Challenges*

1. Lack of designated collection points / follow up on customers is difficult especially if they are widely distributed (user and producers).
2. Cost of setting up the schemes (producers).
3. No monetary/incentive on take back scheme (user). Users of PET (customers) should be incentivised to take it back to the shop or collection point after use.
4. Lack of enforcement of existing policies and laws on waste management and lack of laws specifically on PET (all stakeholders).
5. Lack of awareness (manufacturers and the general public) across the value chain on the PET waste management.
6. Perception that PET waste management is associated with street families.
7. Only big players involved as it is difficult for small payers to set up EPR.

### *Strategies to overcome challenges*

1. Engagement with the government to develop favourable policies - government should not leave this up to industries.
2. Development of strategic plans on take back scheme.
3. Development of reward systems to incentivise stakeholders to participate.
4. Transfer of technologies. There is great opportunity for multinationals and development partners to transfer and share their technologies on waste management and recycling.
5. Create a market for products made from recycled plastics to make take back profitable.
6. Introduction of levy especially on producers importing plastics to ensure there is level playing field for local manufacturers and plastic importers.
7. Public awareness through education and other media platforms towards extended personal responsibility/ extended private responsibility/ independent EPR.
8. Government to declare environment pollution as a national disaster.
9. Support to the Identification and establishment of clear designation of collection points.
10. Developing enforcement of EPR to county governments.
11. Reduce number of licenses required by businesses in the recycling industry.
12. Give responsibilities and money to the counties to waste management.
13. Funding from:
  - a. Government
  - b. Industry
  - c. Retail
  - d. NGOs
  - e. UN etc.

## Opportunities

14. Public Private Partnerships in developing requisite infrastructure to collect and recycle PET.
15. Technology and innovation
16. Devolution.
17. Leverage on existing schemes and scale up New products.
18. New businesses business in the waste management sector
19. Reverse vending machines.
20. Implementing the EPR
21. Big 4 Agenda, e.g. construction materials
22. Mobile applications. Development of mobile applications to ease collection and manage of PET waste.
23. Employment opportunities.

## COLLECTION OF PET PLASTIC IN KENYA

### Challenges

1. Lack of collection points
2. Inadequate awareness about recycling and segregation
3. People don't know the impact of throwing PET in the environment.
4. Transportation costs are too high.
5. A lot of permits and licensing is required to collect and transport plastic waste.
6. There is no segregation of garbage at household levels and at the dumpsites.
7. Public participation is low in the development of waste management policies.
8. Health safety risk when the bottles are thrown in the environment and reused by other people.
9. Levies and duties paid are not directed towards PET waste management.
10. Low government involvement on the ground and in the field.
11. Mixed polymers in some PET manufacturing in Kenya. Burnt PET bottles release harmful gases which contribute to global warming.
12. Little information on recycling firms and lack of awareness on PETCO model.
13. Government regulation on waste management between counties - most recycling facilities are in Nairobi.

### Solution

1. Set up collection points with clear labelling and indication of what waste goes where.
2. Awareness creation in counties.
3. Consolidate licenses, lowering the cost of waste management and segregation.
4. Industrial symbiosis - connect individuals and collectors to recyclers.
5. Pilot a collection centre with a particular county and see how it works. Replicate this all over Kenya.
6. County governments should provide the correct garbage collection trucks to waste collectors.
7. Have communal bins in every public area within the country.
8. More government involvement in PET collection and enhanced coordination with the private sector.

### Strategies

1. Offer incentives to segregate waste.
2. Government policies supporting collection of PET.
3. Government to ensure that taxes paid for waste management are used for this purpose thereby gaining trust of the public to pay more for the same cause.

4. Have in place policy that ensures manufacturers use some content of recycled materials in their production process e.g. have recycled resin in beverage packaging.
5. Arresting and imposing heavy taxes on people seeing dumping and littering.
6. Recycling industries should be subsidized and tax free to make it a more attractive to investors.
7. Have EPR systems that are fully enforced.
8. Have in place and enforce national solid waste management policy.
9. Subsidize the transport of PET waste to recycling facilities as this means cleaning up the environment, giving jobs and uplifting the economy.
10. More media presence through sharing of recyclers and collectors' solutions.

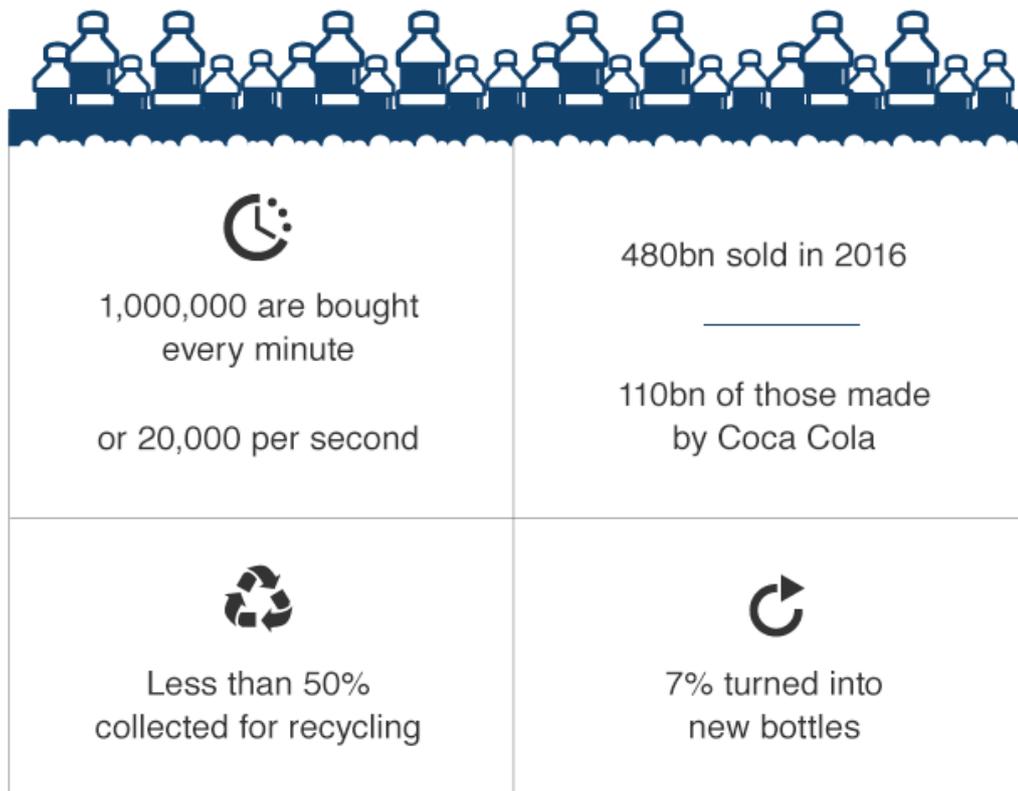
## INFORMATION & DATA

### Key insights and remarks:

1. Need for DATA on total quantity of PET produced, imported, (collected and (prep) recycled and exported PET for recycling.
2. Mapping of the value chain to determine number of producers and amounts produced up till dumpsite.
3. Impose a tax on raw materials for PET manufacture to encourage recycling.
4. Develop communication mechanism of data sharing from various stakeholders for easy access for producers, Users, Collectors, Recyclers. Partnerships.
5. Set up county offices to collect data and interact with Recyclers including on the local market prices for PET.
6. Consumer awareness campaign based on survey and insights on key needs in information.
7. Mapping and sharing / communicating the good examples and opportunities through media avenues.

## Drinks bottles

### A rising tide of plastic



Source: Euromonitor

BBC

Figure 4: PET Facts

## KEY TAKE AWAY POINTS AND CONCLUSION

1. The Framework of Cooperation (FOC) document and the progress made so far was expounded at length by the Ministry of Environment and Forestry and KAM focusing on the need for coordination.
2. The take back scheme being championed by PETCO Kenya was explained to the members at length and participants encouraged to join the scheme and participate actively.
3. The Netherlands Embassy had sponsored an expert to facilitate the meeting and share experiences of successful take back schemes from across the world. The expert explained that there exists many take-back schemes globally. However, he clarified that the most effective take back schemes are the deposit model based. In this case the customer leaves a deposit upon purchase of a product using the PET bottle and gets the deposit back in exchange of the returned PET bottle. He explained that the leader in PET deposit scheme was Denmark and Kenya could use this as a benchmark.
4. Concerns were raised about the lack of legislation to guide Extended Producer Responsibility (EPR) and take back schemes which would also contribute to a level playing field. EPR and take back schemes needed to be rooted in appropriate legislation. The Ministry was encouraged to hasten development of appropriate policy, legislation and guidelines to support EPR and take back schemes.
5. There were concerns raised about high cost of charges in movement of waste across counties. These payments make waste recycling very expensive and could serve as a barrier to EPR and take back schemes. The Ministry was tasked to coordinate County level policies to ensure support for recycling.
6. Public awareness for behaviour change was singled out as critical in ensuring success of EPR and take back schemes for waste management. All stakeholders were encouraged to invest generously to public education and awareness.
7. Concerns were raised about the number of take-back schemes will be developed for PET bottles in Kenya. Stakeholders felt that multiple take back schemes may not work since there maybe laggards. Appropriate legislation was necessary to create harmony and compulsion towards a common goal.
8. Stakeholders within the recycling sector felt that the country was losing resources due to lack of waste segregation. They recommended sorting at the source of waste generation should be enforced to upscale tonnage of recyclable waste.
9. Recycling firms complained that they required more effort and energy to recycle PET bottles that were coloured and those with sticky labels. For coloured bottles, they argued that converting them to fabric was not easy as they were hard to dye. For the labels, they advocated for those which could easily be removed.
10. There were exhibitions during the event that highlighted the potential of the PET recycling industry to support country's Big 4 agenda e.g. development of construction materials such as pavement and floor tiles. If the government deliberately advocated for construction materials made from recycled plastics, there would be increased recovery of waste from our environment. PET waste management could also spur a new industry in recycling that would create jobs in the manufacturing sector.
11. There's need to engage all manufacturers, users and importers to adopt EPR schemes. KEBs data base provides a list of over 1500 brands majority of whom are not affiliated with KAM. (Concern was raised that 75% plastic stakeholders are not bound by any scheme)

## IN THE NEWS

Source	Link
Standard News	<a href="https://www.standardmedia.co.ke/business/article/2001302240/state-encourages-reuse-of-plastic-bottles">https://www.standardmedia.co.ke/business/article/2001302240/state-encourages-reuse-of-plastic-bottles</a>
Standard News	<a href="https://www.standardmedia.co.ke/ktnnews/video/2000163847/national-pet-forum-and-exhibition-set-to-increase-awareness-on-proper-management-of-waste-bottles">https://www.standardmedia.co.ke/ktnnews/video/2000163847/national-pet-forum-and-exhibition-set-to-increase-awareness-on-proper-management-of-waste-bottles</a>
KAM	<a href="http://kam.co.ke/kam-ceos-brief-9th-november-2018/national-pet-forum-exhibition/">http://kam.co.ke/kam-ceos-brief-9th-november-2018/national-pet-forum-exhibition/</a>
Ministry of Environment & Forestry	<a href="http://www.environment.go.ke/?p=5635">http://www.environment.go.ke/?p=5635</a>
Business Daily	<a href="https://www.businessdailyafrica.com/analysis/letters/Recycling-of-plastic-waste-is-achievable/4307714-4841360-j8e7tz/index.html">https://www.businessdailyafrica.com/analysis/letters/Recycling-of-plastic-waste-is-achievable/4307714-4841360-j8e7tz/index.html</a>

## FULL FORUM VIDEO



## THE DAY IN PICTURES



*Mr. Mohammed Elmi, CAS, Ministry of Environment*



*Mr. Sachin Gudka, Chairman KAM*



*Mr. Bernard Merx Co – founder Waste Free Oceans*



*Mr. Mohammed Elmi responds to journalists*



*Delegates engage the panel during a Q&A session*

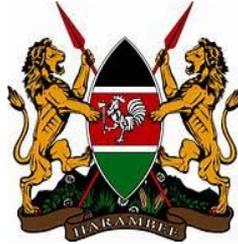


*Mr. Mohammed Elmi visits the NEMA desk*



*Exhibitors showcase their innovation, using PET waste as 3D printing filament*

## EVENT PARTNERS



### MINISTRY OF ENVIRONMENT AND FORESTRY



Kingdom of the Netherlands



*We appreciate the contribution and input of:*

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