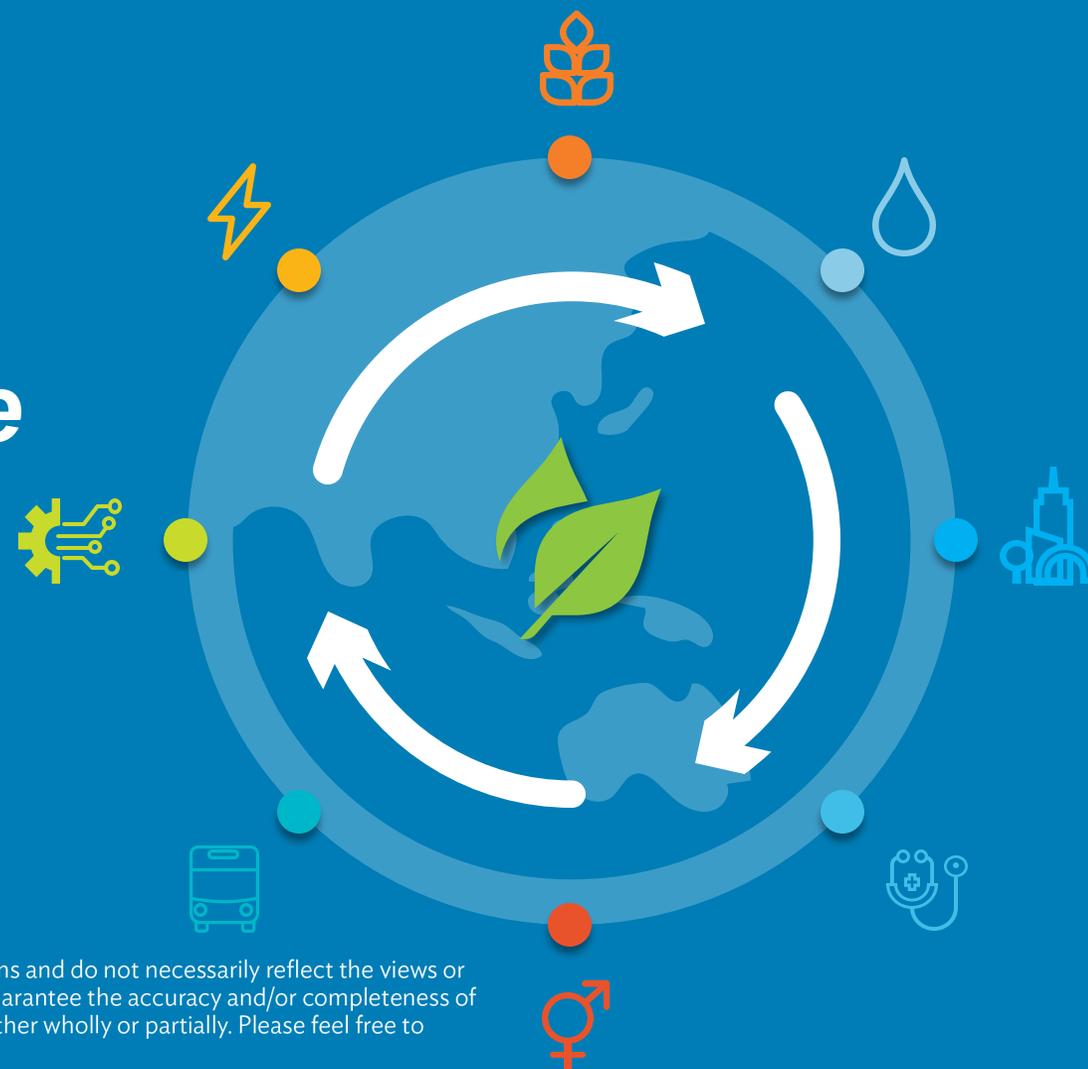


ADB CEWG Webinar Session 6

# *Eliminating the idea of waste with the TerraCycle Global Foundation*

22 September 2022, Thursday 1300 - 1400H GMT +8

via Zoom



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# CIRCULAR ECONOMY

## Eliminating the idea of waste

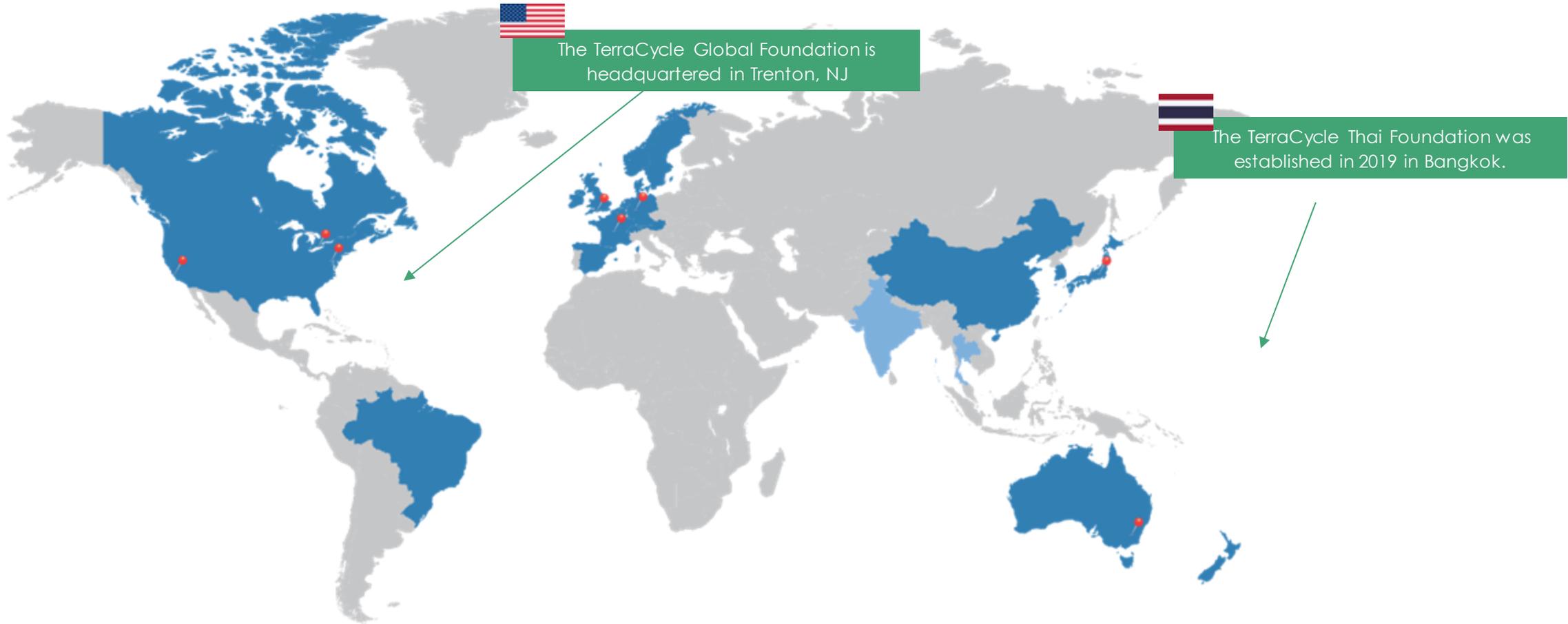
22 September 2022, Thursday 1300 - 1400H GMT +8  
**James Scott**





# GLOBAL MISSION: TO ELIMINATE THE IDEA OF WASTE®

The TerraCycle Global Foundation is a U.S. registered 501(c)(3) non-profit organization founded by TerraCycle, Inc, the world leader in the collection and recycling of traditionally non-recyclable materials. TerraCycle, Inc. operates in across 20 countries, creating innovative recycling and waste solutions.



OUR WORK IS MADE POSSIBLE BY THE FUNDING SUPPORT OF:



### LEGEND

- TerraCycle Inc. Markets
- TerraCycle Global Foundation Markets
- Loop Markets



# About TerraCycle and Tom Szaky



Tom Szaky on CNN

TerraCycle is a social enterprise on a mission to eliminate the idea of waste. Tom Szaky is the CEO and founder of TerraCycle (TC),

In 2001, TerraCycle started off with converted organic waste from the dining halls of Princeton University into fertilizer through the use of worms.

In 2007, TC began moving toward developing recycling solutions and collection systems designed to recycle products and packaging that is traditionally not recyclable through standard municipal waste facilities. We also designed the world's first recycling processes for cigarette butts, soiled diapers and chewing gum.



Received hundreds of awards and recognitions from:



Forbes

FORTUNE

Entrepreneur



and more

## THE ECONOMICS OF RECYCLING

What makes an item practically recyclable can be understood by this simple equation



*If the costs of logistics and processing are less than the value of the resulting material, that product will become practically recyclable.*

**When there is no financial incentive to recycle materials, waste management infrastructures are not developed. Without robust infrastructure, waste is mismanaged and ends up littered, landfilled, or polluting waterways.**



# The TerraCycle Thai Foundation

To reduce the flow of plastic waste from canals and rivers into our oceans

## The 4 Buckets of Success



### PREVENTION

We engage with the local community, government sector, and schools to help prevent waste from entering rivers.

### COLLECTION

Our river waste collection systems have proven to be one of the most cost-effective and high-performing river clean up systems in the world.

### RECYCLING

We recycled 100% of the collected waste.

Whatever cannot be recycled is converted into W2E.

### IMPACT & ROI

We support sponsors to drive public awareness and strong consumer engagement on the waste collection and recycling program.

# WHY THE CANALS?

**80% of the waste found in the oceans originates in the waterways of cities and towns**

- **80% of the ocean waste is plastic** that is transported from land to the sea via rivers or coastlines
- **The Chao Phraya river stretches through the whole of Bangkok** and captured a lot of plastic waste from the city
- **Canal cleanup > Ocean cleanup**  
By collecting plastics far upstream as possible, we prevent and reduce microplastics in the ocean



\*Microplastics are fragments smaller than 5 mm, either come directly from the products we use or are created as larger plastic objects break down in the environment



Lat Phrao Canal



Hua Lamphong Canal



Khlong Toei Canal



Garbage Island - Gulf of Thailand  
10 km length

**1,230,395 lbs to date**  
LIVE @LAT PHRAO SINCE JUNE 2020

**“weight equivalent to  
+21M water bottles”**

- Collected **+558,098 kilograms** of river waste in less than 2 years:
- Deployed **3x river plastic traps** (+65,000 kgs of waste/river plastic trap/year)
- Provided **safe and quality employment for 13 people** from the local community
- Benefitted **+7,000 households** alongside the canal with a cleaner environment
- Operating **5 days/week and creating awareness on waste to the Lat Phrao community**

***We are one of the highest performing operator for water-based waste collection in SEA!***



## RIVER WASTE COLLECTION & PROCESSING ECOSYSTEM

# Sorting waste and preparing for processing

MRC  
(Material Recovery Center)

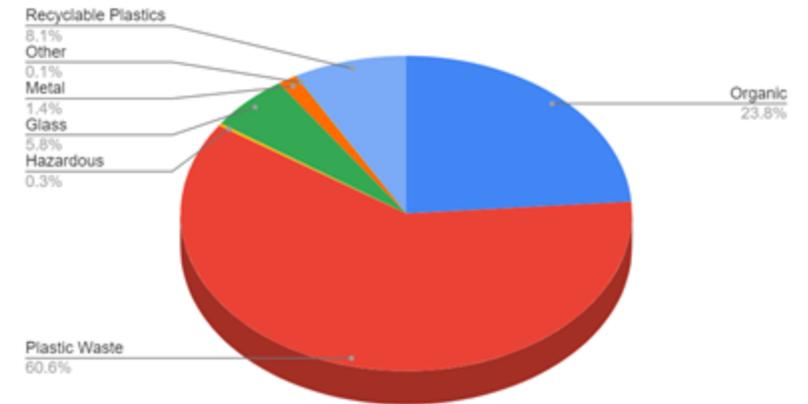


Photos taken of the Foundation's current Material Recovery Center in Bangkok

## “100% of waste is diverted from the Ocean and landfills”

At the Material Recovery Facility we:

- Sort materials based on type, color, and quality
- Compacted and baled for shipping
- Prepared the waste for processing



River waste breakdown by material type with river plastic traps

## WASTE COLLECTION SYSTEMS

We are constantly improving our collection system, reducing the cost of collection, & building a long lasting waste management infrastructure for the public.



Mock design of the Hanging-bins  
\*made from recycled materials



Lat Phrao is suitable for the hanging-bin system which is our method that collects the waste **before it enters the water.**

“Estimated collection volume from  
**200 hanging-bin = +250,000 kg /year\***”

SAMPLE OF OUR COLLECTION

# The collected waste from Lat Phrao canal



SAMPLE OF OUR COLLECTION

# The collected waste from Lat Phrao canal



SAMPLE OF OUR COLLECTION

## The collected waste from Lat Phrao canal





# Community Outreach, School Programs

In 2020 and 2021 we educated over 900 people on our project.



**Our goal is to empower people to create effective programs that create measurable impact with long term solutions.**

In 2022 we will be launching a new and improved Outreach program, School program, and recycling camp. We will begin with 5 schools and have plans to expand to 30 schools by the end of 2022



Our Program contributing partners





## Strong Partnerships with Government Sector, Educational Institutions, & Private Enterprise



*James, our ED in Thailand working with the Assistant Deputy Director of the Bangkok Municipal Administration*

The Foundation has close relationships with several governmental agencies in Thailand to address the plastic waste challenge.

- The **Bangkok Municipal Administration (BMA)** has been supporting the Foundation to transport its collected waste to local waste management companies for processing (recycling and waste to energy when recycling is not an option). The BMA has also been supporting the Foundation with collection infrastructure (i.e., boats) and event support.
- The **Department of Marine and Coastal Resources** has requested the Foundation to support improvements to the collection and processing for its river plastic clean-up projects beginning with Rayong province.



*DMCR recognized TerraCycle Thai Foundation's work on World Oceans Day 2020.*



Bangkok Metropolitan Administration



Department of Marine & Coastal Resources



Mahidol University





# CASE STUDY: 30% Sales increase on 1st Program Launch

Every Purchase = Offset 300 PET bottles off the Thai Canal

# PAÑPURI



PAÑPURI is partnering with TerraCycle Thai Foundation to drive **BEYOND THE RIVER** program; **divert 300 PET bottles directly off the Thai canal** for every purchase of the exclusive collection at retail and e-commerce available at a limited time - **currently extended the limited time due to a positive sales increase.**

Post kick-off, PAÑPURI is offsetting **50 PET bottles off the Thai canal** for every purchase of their health & beauty product.

This program is **amplified with a retail, online, and influencers marketing** to promote the sustainability initiatives starting from 1st October 2021.



*Influencer marketing, customer engagement:  
PANPURI official website/e-commerce*

## BASELINE SUPPLY CHAIN PRODUCTS

Recycling collected waste locally ensuring the waste is given a new life



Supports sustainability and communications value

## OTHER ASPECTS OF OUR MODEL



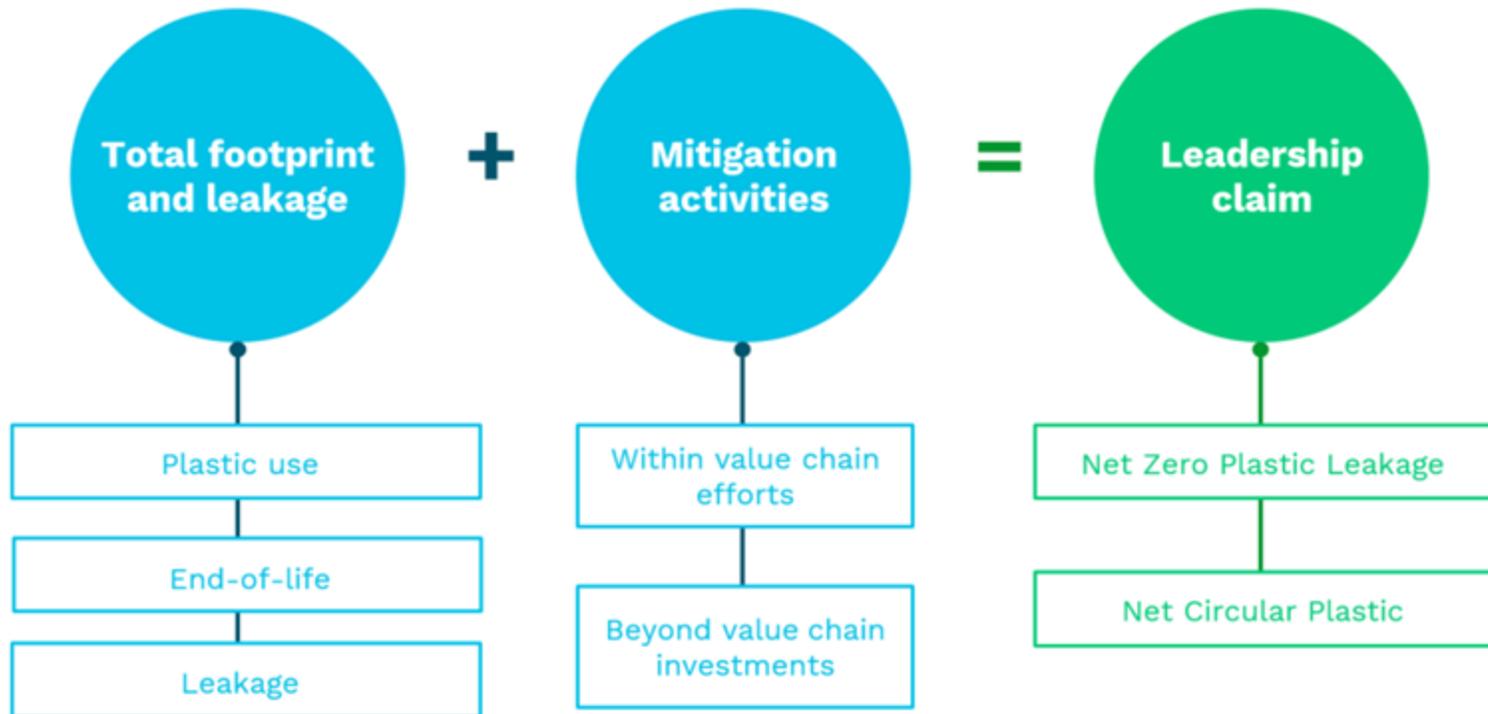
- ❖ Selling Ocean Plastic products to fund further collections from the environment
- ❖ Developing both artisanal, and commercial manufacturing for **products made out of our recycled material**
- ❖ Verra Certified Plastic credits

# Plastic Offsets Verra and RePurpose

Every Purchase = Offset 300 PET bottles off the Thai Canal



TerraCycle Foundation is a Certified Plastic and Carbon Credit Supplier



## HELP INCREASE THE AMOUNT OF WASTE COLLECTED



We currently have **3x river plastic traps** operating in Bangkok since June 2020.

Each river plastic trap collects: **+65,000 kg of waste directly from the water/year.**

We need **15 river plastic trap devices** to collect **1 million kg** of waste/year.

We can expand into 3 other canals : Lat Phrao/Bang sue/Phra Khanong.



## HELP CREATE MORE ADVANCED RECYCLING



### WASTE TO ENERGY

Currently, the material which cannot be recycled is converted into waste to energy.



### RECYCLING

We want to increase the percentage of material getting recycled.

- Help us build **our own processing and recycling center** which will increase the percentage of recyclability of certain materials collected.

## HELP EXPAND OUR SOCIAL IMPACT



We emphasize the need for greater recognition and support for waste pickers in order to advance the circular economy in Thailand.

- ❖ More jobs created within the community (**13 to 43 workers**)
- ❖ More households improved
- ❖ Help change behaviors
- ❖ Ripple effect within the community

## INCREASE EDUCATIONAL OUTREACH



Our work aims to further impact the people in the communities that we serve

- ❖ Implement community waste banks
- ❖ Implement waste banks in schools
- ❖ Prevention programs

# Achieving 12 Sustainable Development Goals

The TerraCycle Global Foundation aligns with and contributes to reaching many of the United Nations' Sustainable Development Goals.



Fair and stable employment for trashpickers to ensure a Living wage



People in the community have jobs and clean canals for the community, two benefits



Our products are made from 100% recycled material, and fully recyclable.



Clean the canal where communities and people live together



Devices Trap Design and development in Thailand. Establishing Recycling network



Picking up wastes 1-2 tons of per day, reducing the amount of waste and sewage in the canals.



Environmental Education Program and Waste Bank



Gender equality career employment



Prevent waste from going to Landfill. Reduce air pollution, bad smell from waste in the canal



558,270 Kg waste removed from waterways, reducing pollution into rivers and oceans.



Create sustainable work for the community



Cooperated with global organizations, brands and Terracycle in more than 20 countries around the world.

# Thank you!

James Scott  
Executive Director  
TerraCycle Thai Foundation

[james.scott@terracyclefoundation.org](mailto:james.scott@terracyclefoundation.org)

