

# Annual Report 2023

## The Circulate Initiative



The  
Circulate  
Initiative

OUR MISSION

**Solve the ocean plastic pollution challenge and build circular and equitable economies across emerging markets.**



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# Foreword

As we reflect on the past year's achievements and look ahead to the challenges and opportunities before us, it is clear that our work is more critical than ever in the fight against ocean plastic pollution and the advancement of circular and equitable economies worldwide.

The state of play is both alarming and hopeful. On one hand, if we continue with business-as-usual, plastics leakage into the environment will increase by 50% by 2040, reaching 30 million tonnes per year,<sup>1</sup> causing devastating impacts to ecosystems and communities worldwide.

Yet, amid these challenges, the circular economy provides a pathway to change our relationship with plastics and reduce plastic pollution by 80% by 2040,<sup>2</sup> creating thousands of jobs in the process.

At The Circulate Initiative, we continue to tackle plastic pollution by centering our efforts on advancing inclusive, responsible sourcing of recycled plastics, building knowledge on financing circular solutions, addressing data gaps on topics including climate change and pricing transparency, and creating opportunities for greater collaboration.

I'm delighted that we made significant progress in these areas during the year:

## Improving the lives of informal workers

Informal waste workers play a pivotal role in plastic recycling supply chains and are at the heart of our work on responsible sourcing, which we launched in 2023. Our multi-year Responsible Sourcing Initiative aims to improve the lives of over 50,000 waste workers and secure the commitment of global brands, investors, recyclers, and aggregators to adopt a harmonized framework for responsible sourcing.

Through this initiative, we are collaborating with partners in Kenya, Viet Nam, India, and Indonesia to understand the local context and develop tailored approaches to enhance human rights practices while increasing the supply of responsibly sourced recycled plastics.

In launching the Responsible Sourcing Initiative in 2023, we hosted a multi-stakeholder convening in India and an event at INC-3\* to facilitate collective discussion on topics including barriers to responsible sourcing and social inclusion for waste workers.

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**Our multi-year Responsible Sourcing Initiative aims to improve the lives of over 50,000 waste workers and secure the commitment of global brands, investors, recyclers, and aggregators to adopt a harmonized framework for responsible sourcing.**

\*INC-2 and INC-3 refers to the second and third session of the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment.

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To date, more than 1,000+ key decision-makers have turned to our award-winning Plastics Circularity Investment Tracker to better understand private capital flows.

## Insights on bridging the financing gap

Collaboration from both the public and private sectors is essential to mobilize finances to address the global plastic pollution crisis, yet the first step is understanding the existing funding and investment opportunities.

To date, more than 1,000 key decision-makers have turned to our award-winning Plastics Circularity Investment Tracker to better understand private capital flows. The tracker provides data and insights on the location, source, and scale of private investments in the plastics circular economy, revealing significant gaps in investment, particularly in emerging economies.

Through our partnership with organizations such as the World Economic Forum (WEF), in 2023, we contributed our insights through a series of webinars and an official side event at INC-2\* on the opportunities and challenges of investing in the plastics circular economy.

## Addressing critical data gaps on a regional and city level

Accurate information and data form a critical foundation to inform decision-making, design solutions, and measure progress. In 2023, we expanded our Plastic Lifecycle Assessment Calculator for the Environment and Society (PLACES) to provide market-specific data on the climate impact of plastic waste management across six markets in South and Southeast Asia.

Recognizing cities as significant sources of plastic pollution and a key to systems change, Urban Ocean® continued to expand its peer network of cities to share best practices and capacity development around waste management, resilience, and circular practices. [Circularity in cities: A comparative tool to inform prevention of plastic pollution](#) was published, comparing data from six participating cities utilizing the Circularity Assessment Protocol (CAP) reports. This important city-level data continues to contribute towards building an effective network of circular cities worldwide.



## Creating global networks to accelerate circularity

In 2023, The Circulate Initiative joined forces with Lonely Whale to convene NextWave Plastics, a consortium of multinational companies committed to reducing plastic pollution and establishing socially responsible, sustainable ocean-bound plastics supply chains.

This year, we expanded the consortium's geographic reach into the Caribbean, Central America, and Southeast Asia with new members joining the consortium from these regions.

As NextWave enters its sixth year, we look forward to driving concrete impacts as we strive towards our goal to divert a minimum of 25,000 tonnes of plastics from entering the ocean by the end of 2025.

As we reflect on these accomplishments, it is essential to recognize the broader context of our work. As negotiations on the global plastics pollution treaty are expected to enter their final phase in 2024, The Circulate Initiative and our partners continue to contribute to discussions that will shape its direction, underscoring the importance of our work in advancing circularity on a global scale.

I would like to extend my deepest gratitude to our partners, supporters, and the dedicated team at The Circulate Initiative for their commitment to our shared mission. Together, we have made significant strides towards a future where plastic pollution is a thing of the past and circular and equitable economies flourish.



**Michael Sadowski**

Executive Director

The Circulate Initiative

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**As negotiations on the global plastics treaty are expected to enter their final phase in 2024, The Circulate Initiative and our partners continue to contribute to discussions that will shape its direction, underscoring the importance of our work in advancing circularity on a global scale.**

# Our approach

The Circulate Initiative is a non-profit organization that was established in 2019 to solve the ocean plastic pollution challenge and build circular and equitable economies across emerging markets.

We deliver cutting-edge research and high-impact programs and partnerships to address system-level barriers in the circular economy and drive collective action with corporations, investors, and policy-makers.



## PROGRAMS & PARTNERSHIPS

We work with a variety of global, regional, and local partners to develop and implement programs that address systemic barriers in the plastics circular economy. Our programs address distinct challenges in the sector, from building robust and responsible supply chains to advancing circularity in cities.



## RESEARCH & TOOLS

We leverage our expertise and network of strategic partners to develop research, analysis, and tools that identify gaps and opportunities to address the plastic pollution problem. These insights inform decision-making, helping stakeholders prioritize strategies, establish targets, scale impactful solutions, and measure outcomes.

# Highlights in 2023



**Launched the Responsible Sourcing Initiative**, a global, multi-year program designed to improve the livelihoods of an estimated 50,000 informal waste workers and secure the commitment of global brands, investors, recyclers, and aggregators to adopt a harmonized framework for responsible sourcing.

# 100+

**organizations from across the value chain** represented at thematic convenings and key partners onboarded



**Released a new, global edition of the award-winning Plastics Circularity Investment Tracker**, the world's first tool to track the scale of private investments into the plastics circular economy.

# 1,000+

**financial decision-makers** have accessed the tracker to date



**Joined hands with Lonely Whale to convene NextWave Plastics**, a consortium of multinational companies with the goal of diverting 25,000 metric tonnes of ocean-bound plastic by 2025.

# 3

**new members joined NextWave**, expanding global geographic reach across the Caribbean, Central America, and Southeast Asia



**Expanded the scope of the Plastic Lifecycle Assessment Calculator for the Environment and Society (PLACES)**, deepening understanding of the climate impact of plastic waste management practices across six countries in Asia.

# 500+

**stakeholders have utilized PLACES** since its launch



# Advancing socially responsible supply chains and empowering informal waste workers

Informal waste workers play an essential role in the global waste management economy, contributing to almost 60% of global plastic recycling.<sup>3</sup> Despite their contribution, the majority of informal waste workers face routine exploitation, their experience shaped by persistent marginalization, lack of social safety nets, vulnerability to human rights abuses, and insufficient incomes.

As action against the plastic crisis gains momentum, there is a significant opportunity to create a more inclusive ecosystem where the livelihoods and wellbeing of informal waste workers are taken into consideration.



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All workers in the informal economy should have access to equal opportunities, rights, and protections. The Circulate Initiative, in its efforts to build an inclusive recycled plastic supply chain, can help to ensure these workers have a seat at the table, their voices and needs are heard, and that the entire ecosystem recognizes their contributions to tackling climate challenges like plastic pollution.



**Sonia Dias**, Global Waste Specialist at Women in Informal Employment: Globalizing and Organizing (WIEGO)

## The Responsible Sourcing Initiative

In 2023, we launched the [Responsible Sourcing Initiative](#), a multi-year program that mobilizes stakeholders across the plastic waste value chain to ensure that plastic waste supply chains not only support recycled plastics but also safeguard human rights and promote environmental sustainability.

Supported by partners including Circulate Capital, First Mile, HP Inc., Minderoo Foundation, Tearfund, The Coca-Cola Company, and UNDP Viet Nam, the initiative will address the policies and practices that should be implemented in emerging markets to ensure ethical working conditions and improve the lives of informal waste workers.

### OUR PATHWAY TO RESPONSIBLE SUPPLY CHAINS FOR RECYCLED PLASTICS



#### Align

Align brands, recyclers, aggregators, and waste worker associations in adopting an actionable framework built on a shared understanding of responsible sourcing, best practice implementation, success metrics, and how progress will be tracked.

01



#### Identify and invest

Identify and invest in projects in India, Indonesia, Kenya, and Viet Nam to improve human rights practices and increase the supply of responsibly sourced recycled plastics.

02



#### Implement

Provide training to stakeholders on implementing responsible sourcing practices based on a harmonized framework across the value chain.

03



#### Measure & monitor

Measure and monitor impact and disseminate findings from local projects to replicate success in other markets.

04



Long My waste treatment area in Quy Nhon, Binh Dinh, Viet Nam

## Responsible Sourcing Initiative officially launches in Viet Nam

In early 2024, HP Inc. was announced as the Responsible Sourcing Initiative brand partner in Viet Nam, supporting The Circulate Initiative and implementation partner UNDP Viet Nam, in collaboration with aggregators and recycling companies, to identify and invest in solutions that improve the working conditions and livelihoods of informal waste workers in the country.

“

**Together, our collective behavior can create more effective change than individual action. We are excited to join the Responsible Sourcing Initiative, working closely with local partners to identify opportunities to strengthen ethical supply chains for recycled plastics in Viet Nam and help the planet, people, and communities.**



**Hayley Whatarau**, Global Human Rights Manager, HP Inc.

## Responsible Sourcing Initiative Annual Convening, Bengaluru

From May 17 to 19, 2023, over 70 participants representing brands, recyclers, aggregators, and waste worker advocates gathered in Bengaluru, India, at the Responsible Sourcing Initiative Annual Convening. The event was centered on sharing perspectives and best practices on responsible sourcing, including thematic breakout sessions and site visits.

### The event was designed to:

- ▶ Provide an opportunity for waste worker advocates, recyclers, aggregators, and brands to learn from each other regarding how to incorporate human rights into responsible recycled plastics value chains.
- ▶ Secure alignment on key elements of responsible sourcing frameworks and practices that serve as a foundation for future methodologies.
- ▶ Prioritize actions and agree on the Responsible Sourcing Initiative roadmap that can be implemented over the next three years.



Responsible Sourcing Initiative Annual Convening, Bengaluru



Responsible Sourcing Initiative Annual Convening, Bengaluru



Saahas Zero Waste Material Recovery Facility, Bengaluru

Attendees came away with three central takeaways:

- ▶ **We must first build trust with waste workers** by listening to and understanding their perspectives.
- ▶ **We need to collaborate with stakeholders across the value chain** to translate shared values into solutions to transform the plastics supply chain.
- ▶ **The pathway to responsible sourcing begins with understanding and leveraging the current inequitable distribution of power within the system**, and recognizing the economic realities of creating a responsible recycling sector.



#### ECO-BUSINESS

[To win the battle against plastic pollution, voices of Asia's waste pickers must be recognised](#)

“Due to the diversity of the workforce, any solution to uplift waste pickers must recognize their specific challenges and needs – and this can only happen when they are empowered to put their views forward.”

**Annerieke Douma**, Director of Programs, The Circulate Initiative



#### KEY OUTCOME

**100+**  
**organizations**

**from across the value chain** represented at thematic convenings and **key partners onboarded** in the launch year of the Responsible Sourcing Initiative.



#### FAIR PLANET

### The quiet heroes of the plastic crisis

“Knowledge sharing and peer-to-peer learning are integral components of the project and The Circulate Initiative seeks to assess impact and disseminate insights from local initiatives to replicate successes in other markets.”

## VOICES: Empowering waste workers on the path to a just transition

Against the backdrop of INC-3, The Circulate Initiative partnered with UN-Habitat to host an event that showcased the crucial role waste workers play in tackling the global plastic waste challenge and explored mechanisms for their integration in the plastics recycling value chain.

Kicking off with a movie screening spotlighting the journeys, challenges, and aspirations of waste workers from Viet Nam, South Africa, India, and Nigeria, the event featured a panel of experts, including representatives from The Coca-Cola Company (representing the Fair Circularity Initiative), African Reclaimers Organisation, Alliance of Indian Wastepickers, Thyajya Shramika Sangha, and International Alliance of Waste Pickers.

Cecilia Andersson, Head, Waste Team, Urban Basic Services, UN-Habitat, and Lucía Fernández, Acting General Secretary, International Alliance of Waste Pickers, delivered the opening and closing remarks.



**Read the blog:** [From one voice to many: Reflections from INC-3](#)

Annerieke Douma

## Nguyen Thi Thanh Thuy

(Binh Dinh, Viet Nam, 2023)

**My name is Nguyen Thi Thanh Thuy.** *The landfill is where I have lived since I was a child. As the trash has brought me an income to support my family and myself to this day, there is never a day when I am not at the landfill.*

*In the past, it was very tiring having to work in the landfill in the scorching heat without protective gear. I encounter difficulties in this job when I buy and pick up trash (such as aluminum, plastic things) but cannot resell them later. There were times when there was no place to collect trash, and I did not know what to do. There were times when I sold trash to businesses but they went bankrupt, they ran away with no money left and I lost almost all of my properties.*

*But things have been going well lately. As the trash at Long My landfill is classified at the source, it is now more comfortable to go to the landfill because there is just one place, not different places like it used to be.*

*We hope that the State will pay more attention to women who collect waste and provide us with regular health check-ups. The second thing is that we hope to receive specialized masks, gloves and shoes to ensure safety.*

 [Watch the video](#)



## Kumuda

(Bengaluru, India, 2023)

**My name is Kumuda.** Twenty years ago I had a small scrap shop, but I did not have enough experience to run it back then, therefore we were running at a loss. To tide by [sic], I began waste picking. For four years I worked as a waste picker and I used to earn only one hundred or two hundred rupees every day (US\$1.20 to 2.40) as the rate of recyclables was also very low back then.

With the support of Hasiru Dala we got the waste picker card which gave me an identity and helped me work with the municipality (Bruhat Bengaluru Mahanagara Palike) to run this dry waste collection center. For the last seven years, I have been working as an operator at the dry waste collection center and in a position to provide a salary to 25 people.

Now I can do data entry, math and mark attendance of all employees. All my workers are ladies and I want to help them educate their kids. I will reach out to the government through Hasiru Dala and see how educational support can be provided for the kids.

 [Watch the video](#)





# Sharing knowledge on the financing gap in the plastics circular economy

Nearly US\$ 17 trillion in public and private funding<sup>4</sup> is needed between 2025 and 2040 to reduce annual mismanaged plastic volumes by 90% relative to 2019 levels. Multiple sources and types of capital will be crucial, given the different stages of development and different investment needs of solutions to tackle plastic pollution.

Private investment will play a crucial role in addressing the vast financing gap, but innovative approaches to financing circularity, robust data insights on the capital landscape, and a conducive policy environment are needed to encourage investment.



## IMPACTALPHA

### Catalyzing private capital for solutions to the plastic pollution crisis

“The Circulate Initiative’s research points to the essential role that governments, global corporations, and multilateral cooperation – like the development of the global plastics treaty – must play to fill the financing gap that is standing in the way of creating a sustainable circular economy.”

## Global edition of the Plastics Circularity Investment Tracker

[The Plastic Circularity Investment Tracker](#) is the world's first tool to track the scale of private investments into the plastics circular economy globally. First introduced in March 2023 with data from deals in emerging markets, the global edition of the Investment Tracker was launched in November 2023.

Based on data from over 3,700 deals occurring in 91 countries between 2018 and the first six months of 2023, in the accompanying report, [Key findings from the global edition of the Plastics Circularity Investment Tracker](#), we share unique insights into investments channeled to different solutions across the plastics value chain, their scale, and the regions where the investments are taking place.

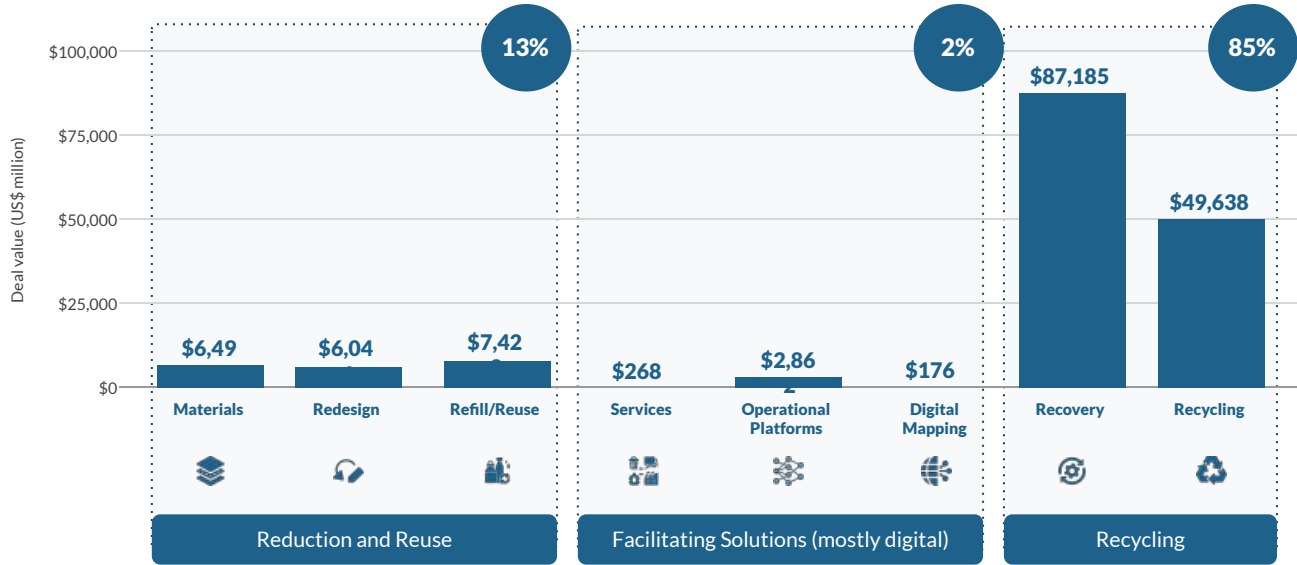
The Investment Tracker enables key decision-makers to better understand the extent of the financing gap in plastics circularity and identify opportunities to scale solutions to unlock the full potential of a circular economy.

### KEY FINDINGS

- ✓ US\$ 160 billion in private investments in plastics circularity globally.
- ✓ 89% of investments in Europe and North America, despite the crisis being more severe in emerging markets.
- ✓ Asia accounted for 8% (US\$ 12 billion) of plastics circularity investments, Latin America and the Caribbean recorded less than US\$ 2 billion, and Africa accounted for only 0.09% (US\$ 150 million) of total deal value.
- ✓ 85% of investments went to recycling and recovery, while reuse and refill models received less than 5%.
- ✓ 69% of the total deal value came from banks and corporates.
- ✓ The top ten deals, each over US\$ 2 billion, collectively accounted for 30% of the total deal value.



### Investments targeted at downstream recovery and recycling solutions



The Plastics Circularity Investment Tracker was recognized as “ESG assessment tool of the year – investment decision and insights” at the prestigious 2023 Sustainable Investment Awards, organized by Environmental Finance.



#### PACKAGING INSIGHTS

### [The Circulate Initiative launches Plastics Circularity Investment Tracker to tackle ocean pollution](#)

“In the absence of consistent and reliable information on investments or a track record of deals, investors are unaware of the size of the opportunity and businesses across the plastics value chain miss out on potential capital to drive solutions forward.”

**Umesh Madhavan**, Research Director, The Circulate Initiative



#### KEY OUTCOME

**1,000+**

**financial decision-makers** accessed the award-winning Plastics Circularity Investment Tracker to understand private capital flows into relevant solutions

## Contributing to global knowledge sharing on financing plastics circularity

The ongoing negotiations for the international legally binding instrument (ILBI) provide an unprecedented opportunity for governments to accelerate efforts to combat plastic pollution. At INC-2, The Circulate Initiative contributed insights on the opportunities and challenges for financing the circular economy for plastics through events with key partners.

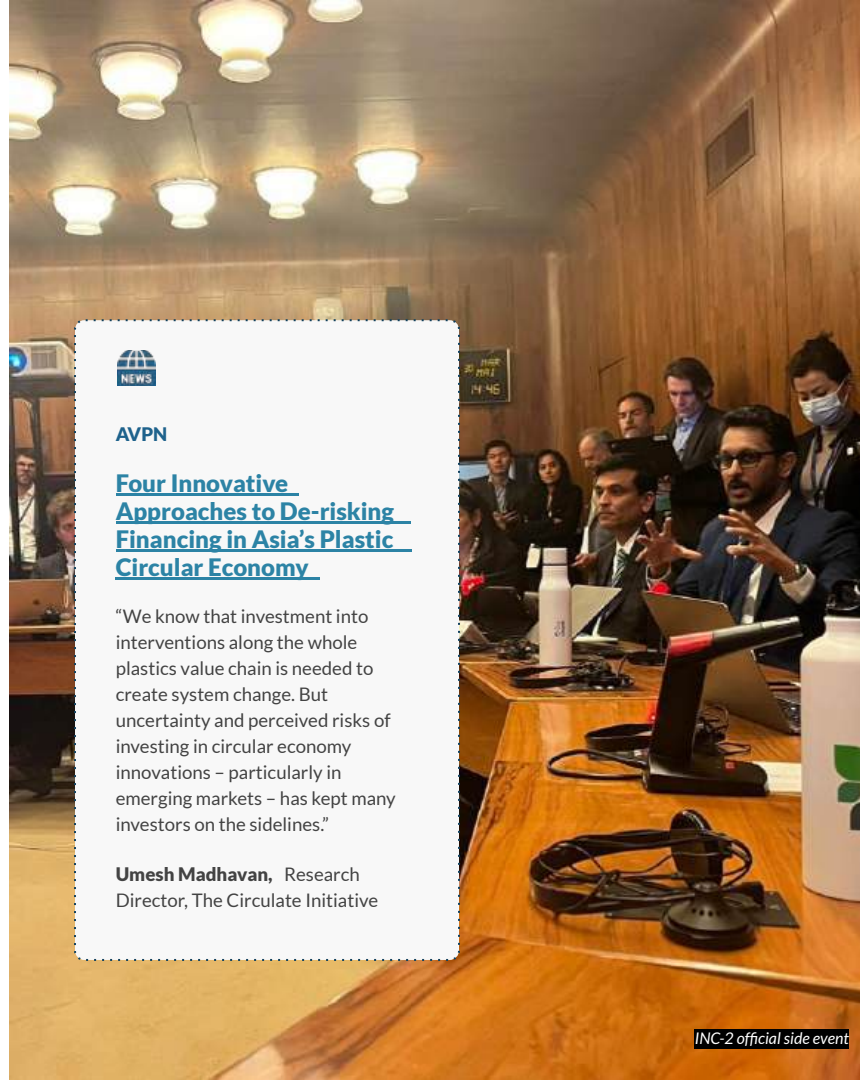


AVPN

### Four Innovative Approaches to De-risking Financing in Asia's Plastic Circular Economy

“We know that investment into interventions along the whole plastics value chain is needed to create system change. But uncertainty and perceived risks of investing in circular economy innovations – particularly in emerging markets – has kept many investors on the sidelines.”

**Umesh Madhavan**, Research  
Director, The Circulate Initiative



## Towards an international treaty on plastics pollution: Reflections on selected issues

On May 26, 2023, The Circulate Initiative’s Research Director, Umesh Madhavan, joined industry leaders at an event hosted by the Organisation for Economic Co-operation and Development (OECD), “Towards an international treaty on plastics pollution: Reflections on selected issues,” to share insights into the current investment landscape in plastics circularity and the need for a conducive policy environment to mobilize capital.



**Mobilizing resources to support action to end plastic pollution: Costs, investment needs, and mechanisms to leverage public and private finance**

The Circulate Initiative partnered with the OECD, Reloop, and The World Bank to host an official thematic side event at INC-2 on May 30, 2023. Research Director Umesh Madhavan joined a panel of experts to discuss mechanisms to leverage public and private sector finance and options for establishing stronger financial collaboration and assistance mechanisms to end plastic pollution effectively.

 **Read the blog:** [Five takeaways from the INC-2 discussions](#), Umesh Madhavan



**KEY OUTCOME**

**Key insights**

**in private investments in plastics circularity** made globally between January 2018 and June 2023 were shared to inform Member States and observers of the INC process.

## Webinars to share insights on opportunities to unlock financing for plastics circularity

### Regional insights on financing a plastics circular economy in emerging markets

The Circulate Initiative and World Economic Forum (WEF) collaborated on a series of webinars that provided regional insights and success stories on financing a plastics circular economy, focusing on Southeast Asia, Latin America, and Africa.

The series brought together diverse voices and stakeholders from the private and public sectors to further understand the interplay and interdependency between the two sectors and the role of policy in catalyzing private sector investment. The series showcased the importance of multi-stakeholder action and collaboration to advance capital flows towards a sustainable circular economy for plastics.

Building on the [case study publication](#), the series delved further into each region's unique landscape in relation to plastic pollution.

*"We are seeing that the private sector has led the way [for investments in plastics recycling in the circular economy], but increasingly we are starting to see governments and sovereign activities catching up, overtaking."*



**James Baker**, Senior Circular Economy Specialist (Plastic Wastes), Asian Development Bank

*"The plastics industry in Latin America is currently undergoing a significant transformation. We are witnessing a notable shift in consumer awareness regarding the plastic problem, leading to a growing demand for solutions from businesses."*



**Christian Urazan**, Associate Partner, Circulate Capital

*"When it comes to scale up and infrastructure-building in many markets [in Africa], it's important that we have the flexibility and ability to adjust and utilize funds to leapfrog to a circular system rather than trying to transition away from a linear system."*



**Keiran Smith**, Group Chief Executive Officer, Mr. Green Africa

## Unlocking finance to advance a circular economy for plastics: Insights and tools for financial decision-makers

On November 7, 2023, The Circulate Initiative, WEF, and UNEP FI collaborated on a webinar to explore the pivotal role that banks and financial institutions can play in redirecting financial flows to plastics circularity solutions to unlock investment opportunities and create positive impact.

The session uncovered successful case studies, tools, and insights to inform Member States, decision-makers, investors, and business executives as they look to move the needle on their sustainable investment agenda and in preparation for the INC negotiations.

*"The most important message we want to get across is we want to align financial flows from all sources, including public and private, with the overarching objectives of the ILBI. This would also give a strong signal that public and private finance actors would be expected to reorient the financial flows... and to the Member States that they would be required to provide the enabling environment to realize this."*



**Joost van Dun**, Director Sustainable Finance and Circular Economy Lead, ING, and Representative of the Finance Leadership Group on Plastics

*"We need to start thinking about how we can drive more capital to reduction and reuse. That would need supportive policies, a build-up of infrastructure, and a change in behavior from all of us."*



**Umesh Madhavan**, Research Director, The Circulate Initiative

*"While the financing needed to beat plastic pollution by 2040 might be large in scale, the success of these efforts will come down to local systems and institutions being able to deploy finance and capital at speed and scale to both public and private responses."*



**Juliet Kabera**, Director General, Rwanda Environment Management Authority



### KEY OUTCOME

**470 stakeholders**

**stakeholders from across the plastics value chain** tuned in to The Circulate Initiative's webinars on financing plastics circularity.

# Addressing data gaps to inform decision-making

Amongst the United Nations' recommendations to spur international action on plastic pollution is the importance of establishing a common baseline of knowledge.<sup>5</sup> However, stakeholders connected to the plastics value chain are often challenged by the absence of data, which prevents them from understanding the nature and scale of the problem, acting with evidence-based strategies, and monitoring progress over time.

Both private and public sectors have a crucial role to play in facilitating an understanding of local realities, setting robust baselines, and providing more and better-quality data to fund circular economy solutions at scale.



## ECO-BUSINESS

[Recycling all mismanaged plastic waste in South, Southeast Asia could reduce emissions by over 200 million tonnes by 2030](#)

“Since its launch in 2021, PLACES has been used by corporations, investors, recyclers, waste management service providers, and city planners to generate market-specific data to quantify the environmental impact of waste management and recycling interventions.”



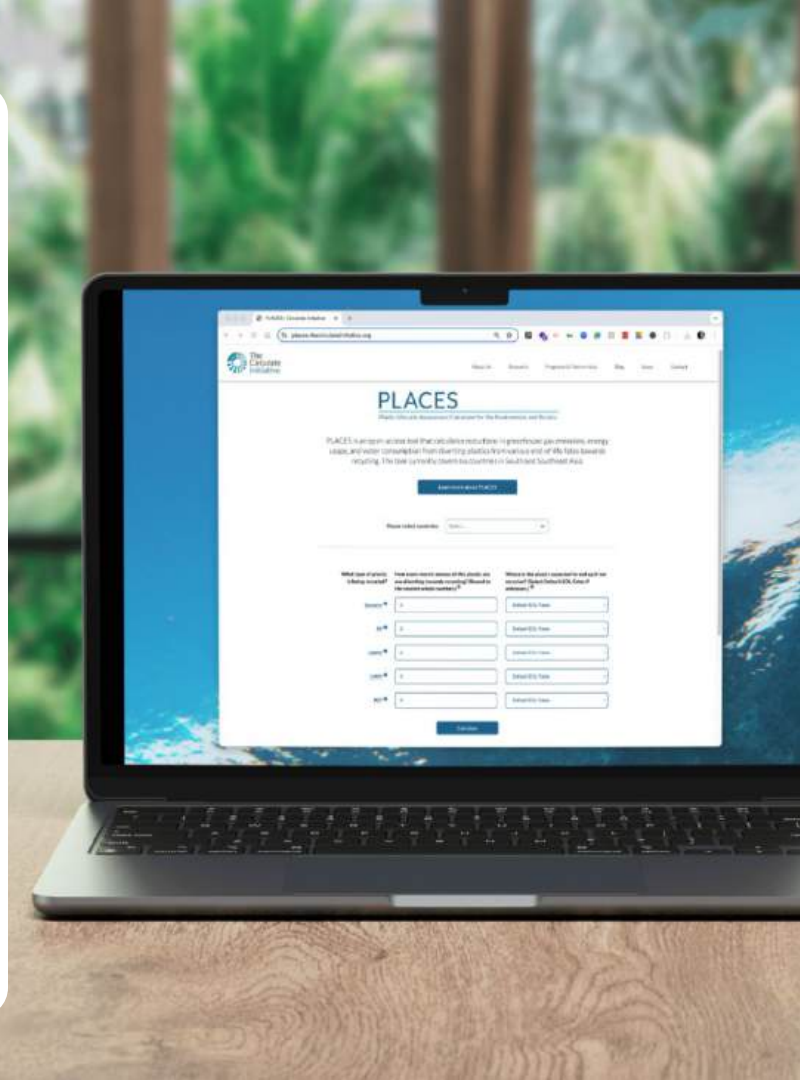
## Plastic Lifecycle Assessment Calculator for the Environment and Society (PLACES)

Often perceived as distinct environmental challenges, plastic pollution and climate change are interconnected, with plastics contributing to global warming at each stage of the lifecycle. In the absence of interventions, GHG emissions from the plastics lifecycle are projected to more than double to 4.3 gigatonnes by 2060, representing 4.5% of global emissions.<sup>6</sup> Tackling the plastic pollution challenge is key to reducing GHG emissions; however, this relationship is often less understood due to the lack of accurate data on the climate impact of plastic waste.

[The Plastic Lifecycle Assessment Calculator for the Environment and Society \(PLACES\)](#) is the first open-access GHG calculator that tracks the environmental impact of plastic waste management and recycling across South and Southeast Asia.

Developed in collaboration with the Singapore Institute of Manufacturing Technology (SIMTech), Agency for Science, Technology and Research (A\*STAR), a new edition of PLACES was released in 2023, offering market-specific data on GHG emissions, energy, and water consumption of plastic waste management and recycling solutions across India, Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.

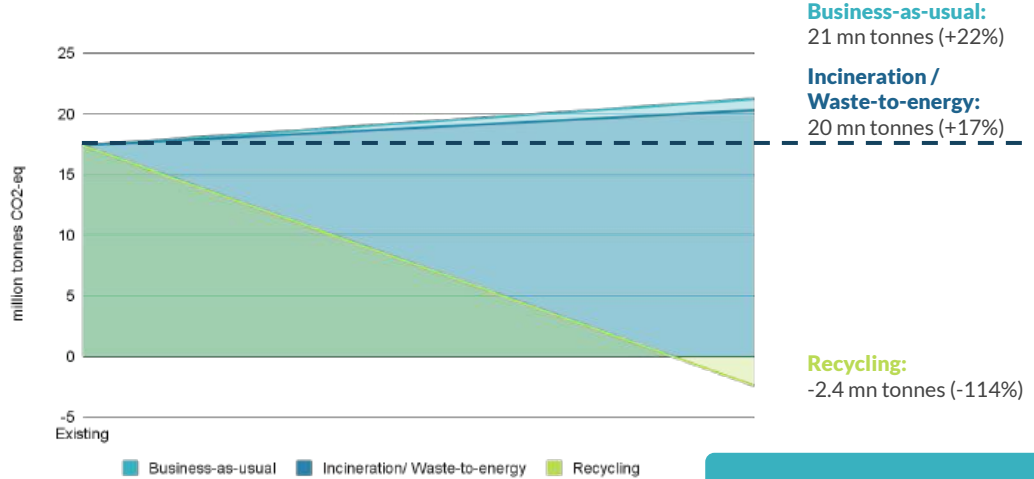
The insights from the tool, outlined in our report, [The climate benefits of plastic waste management in India and Southeast Asia](#), demonstrate the key role that plastic waste management and recycling can play in reducing GHG emissions in South and Southeast Asia.



## KEY FINDINGS

- ✓ Recycling all mismanaged plastic waste in the six markets across South and Southeast Asia can reduce GHG emissions by 229 million tonnes, the equivalent of shutting down 61 coal-fired power plants.
- ✓ Diverting just one tonne of plastic waste from open burning in any of the six markets towards proper collection and recycling can result in avoiding more than three tonnes of GHG emissions.
- ✓ Incineration and waste-to-energy approaches to plastic waste management in the studied markets can lead to 20 million tonnes of emissions in 2030; this can be avoided by opting for plastic waste recovery and recycling solutions.
- ✓ Meeting the 2030 national recycling targets of the six markets can lead to a 10% reduction in global GHG emissions from plastics end-of-life.

## Carbon footprint of plastic waste treatment in South and Southeast Asia



The percentage figures show the percentage change in the carbon footprint from the existing plastic waste treatment scenario indicated by the dotted line (17 million tonnes CO<sub>2</sub>-eq) to the respective projected 2030 scenarios.



## KEY OUTCOME

# 500+ stakeholders

utilized our **GHG calculator**, PLACES, to access data on the climate impact of plastic waste management practices in six countries in Asia.

## PLACES country snapshots



### INDIA

By 2030, recycling all mismanaged plastic waste in India can reduce GHG emissions by 36 million tonnes, equivalent to taking over eight million cars off the road for a year.<sup>7</sup>



### THAILAND

Open burning and incineration account for 85% of Thailand's total carbon footprint associated with plastic waste treatment. Diverting just one tonne of plastic waste from open burning towards proper collection and recycling can result in avoiding more than three tonnes of GHG emissions.



### MALAYSIA

Incineration and waste-to-energy approaches to plastic waste management in Malaysia can lead to almost half a million (0.4 million) tonnes of GHG emissions in 2030; this can be avoided by opting for plastic waste recovery and recycling solutions.



### VIET NAM

Plastic is the most abundant type of waste collected in Viet Nam's rivers and coasts, accounting for 94% of total items.<sup>8</sup> By 2030, recycling all mismanaged plastic waste can reduce GHG emissions by 61.5 million tonnes, equivalent to taking over 14 million cars off the road for a year.



### THE PHILIPPINES

Recycling 100% of the polyethylene terephthalate (PET) consumed annually in the Philippines can reduce GHG emissions by more than 500,000 tonnes.



### INDONESIA

Recycling 100% of the polyethylene terephthalate (PET) waste produced annually in Jakarta alone can reduce GHG emissions by more than 350,000 tonnes.

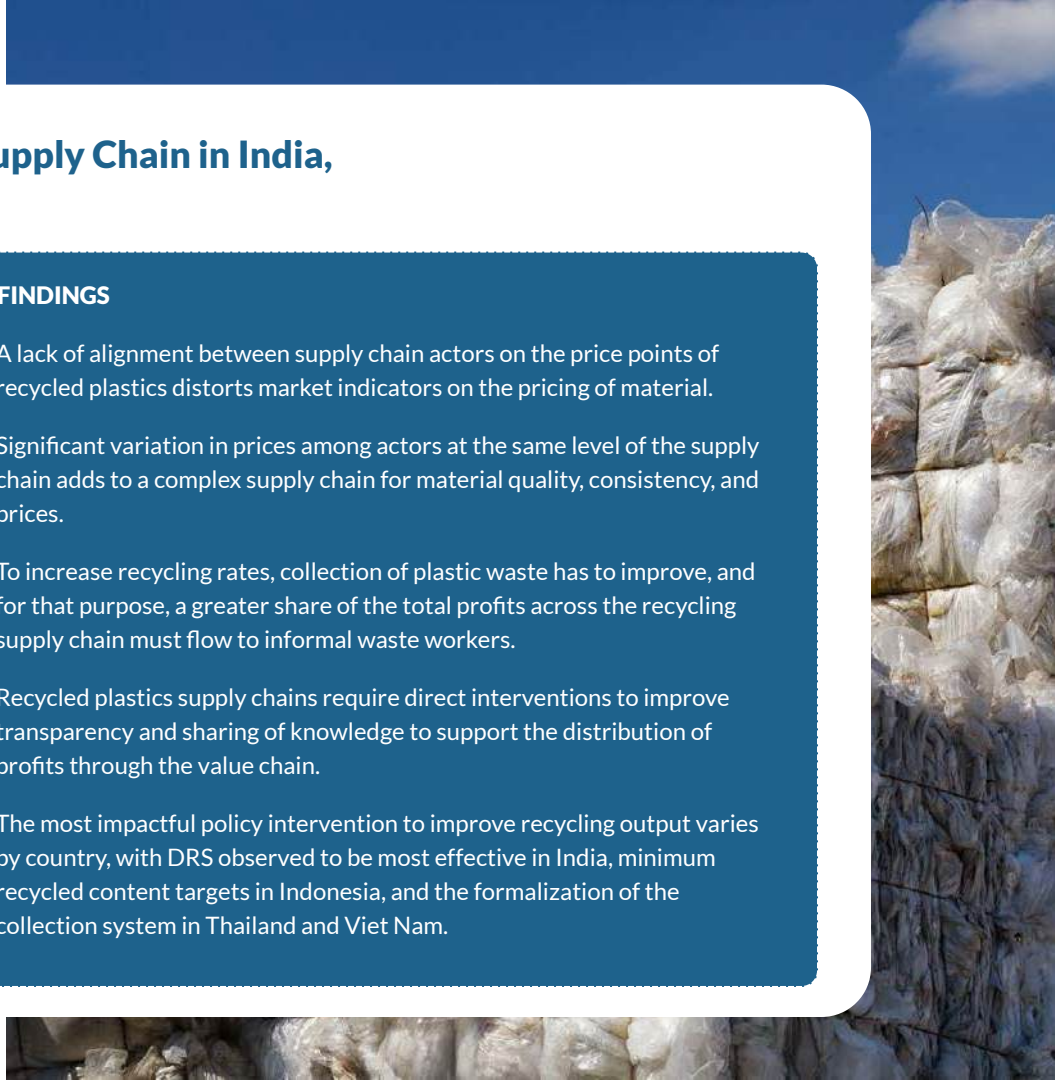
## Pricing Transparency in the Recycled Plastics Supply Chain in India, Indonesia, Thailand, and Viet Nam

The plastics recycling ecosystem in South and Southeast Asia is highly fragmented with a mix of formal and informal actors. This fragmentation leads to a lack of transparency in the economics of plastic recovery and recycling, resulting in fluctuations in demand and supply, poor capacity utilization at recycling facilities, and challenges for companies to meet commitments on using recycled content in plastic packaging.

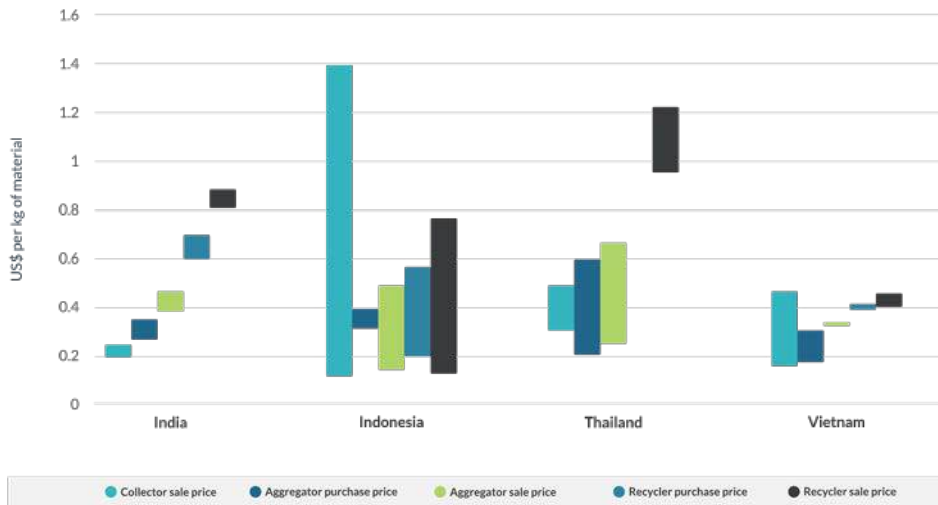
Alongside our research partner, Anthesis Group, The Circulate Initiative conducted a study to investigate pricing transparency in the recycled plastics supply chain in India, Indonesia, Thailand, and Viet Nam. The report [Pricing Transparency in the Recycled Plastics Supply Chain in India, Indonesia, Thailand, and Viet Nam](#) examines how various policies, such as Extended Producer Responsibility (EPR), the implementation of a Deposit Return System (DRS), and taxes on virgin polymers, for example, can impact recycling output, enabling stakeholders in the recycled plastics supply chains to capitalize on the tailwinds provided by global efforts to tackle plastic pollution.

### KEY FINDINGS

- ✓ A lack of alignment between supply chain actors on the price points of recycled plastics distorts market indicators on the pricing of material.
- ✓ Significant variation in prices among actors at the same level of the supply chain adds to a complex supply chain for material quality, consistency, and prices.
- ✓ To increase recycling rates, collection of plastic waste has to improve, and for that purpose, a greater share of the total profits across the recycling supply chain must flow to informal waste workers.
- ✓ Recycled plastics supply chains require direct interventions to improve transparency and sharing of knowledge to support the distribution of profits through the value chain.
- ✓ The most impactful policy intervention to improve recycling output varies by country, with DRS observed to be most effective in India, minimum recycled content targets in Indonesia, and the formalization of the collection system in Thailand and Viet Nam.



## rPET price ranges as collected through interviews (in US\$)



STOCKHOLM ENVIRONMENT  
INSTITUTE

[Mapping local plastic recycling supply chains: insights from selected cities in India, Indonesia, Thailand and Viet Nam](#)

“The opportunity to improve the management of plastic waste in these countries is vast. While there is a range of existing studies on national waste flows, few explore the plastic supply chains in more localized contexts.”



### KEY OUTCOME

Developed the [Recycled Plastics Policy and Pricing Tool](#) to allow users to estimate the impact of different policy interventions on the output volumes, market share, and prices of recycled plastic polymers, providing unprecedented clarity around the addressable market opportunity for investors and policy-makers.

## Urban Ocean®

Most of the plastic in our oceans comes from cities, particularly those along rivers and coastal areas in emerging markets. The impact of cities on global health is significant, and as testing grounds for the latest circular solutions and business models, they hold immense opportunities to advance the circular economy.

Jointly implemented by Resilient Cities Network, Ocean Conservancy, and The Circulate Initiative, Urban Ocean® is a capacity-building and accelerator program to end ocean plastic pollution and build more resilient cities. It champions circular economy principles, builds awareness of ocean plastic, assesses waste management systems, and supports cities to develop projects that address the interrelated challenges of ocean plastics and urban resilience.

In 2023, two Circularity Assessment Protocol (CAP) reports were released for Surat, India, and Santiago, Chile, identifying opportunities for the greatest impact in each city.

Following field work across both cities, each report identified a range of opportunities for each, across product design and manufacturing, plastic usage, community engagement, and leakage prevention. Cities will use these reports to identify actions to address plastic pollution within the local context.

In January 2024, Salvador, Brazil; Santa Fe, Argentina; and Bangkok, Thailand were announced as the program's third cohort of cities. The latest cohort adds to the network of nine cities where the program has been implemented, including Can Tho, Viet Nam; Chennai, India; Melaka, Malaysia; Mumbai, India; Panama City, Panama; Pune, India; Santiago, Chile; Semarang, Indonesia; and Surat, India.



### KEY OUTCOME

## 3 new cities

**(Salvador, Santa Fe, and Bangkok) announced** for the next cohort of the Urban Ocean® program and two CAP reports released.

## Circularity in cities: A comparative tool to inform prevention of plastic pollution

The circular economy has become an aspiration for reducing pollution and increasing sustainability, though quantification and monitoring methods are not consistent. In 2023, a study was released comparing CAP data from six cities in India, Indonesia, Malaysia, Panama, and Viet Nam that had participated in the Urban Ocean® program.

The CAP is a standardized methodology used to quantify circular materials management and collect community-level data to inform decision-making. Conducted by a team of researchers and practitioners, including The Circulate Initiative's Senior Policy Advisor Chever Voltmer, the study examines how cities can take action to reduce waste and build circular economies, highlighting the importance of community-level data to support decision-making.



**Cities bear a large burden of plastic management and pollution, which is not consistently recognized ... City-level data facilitates knowledge exchange between communities, which can lead to an effective network of more circular cities worldwide.**

 [Read the report](#)



### THE EDGE MALAYSIA

#### Waste: Melaka chosen as learning city for circular economy

“After 15 months of incubation and program planning with Urban Ocean, Melaka presented its project ideas to not only improve its waste management systems and reduce plastic leakage but also to get opportunities for potential partners and funders.”

**Umesh Madhavan**, Research Director,  
The Circulate Initiative

# Forging global, cross-sector networks to make circularity a reality

Integrating ocean-bound recycled plastic into supply chains has huge potential to decrease plastic pollution entering our seas, but companies must be able to see the commercial viability, particularly in the context of heightened consumer, stakeholder, and policy-maker awareness of the environmental impacts of marine plastic. By working collaboratively across and within industries, we can demonstrate what is possible and articulate measurable impact that will inspire others.



## THE STAR

### [Spearheading the fight against plastic pollution on World Water Day](#)

“We have found in NextWave a like-minded network of collaborators working together to keep plastic out of the ocean by creating products from ocean-bound plastics... NextWave offers Heng Hiap Industries a seat at the table alongside other stakeholders along the value chain, including multinational companies like Dell Technologies, HP Inc. and Logitech.”

**Kian Seah**, Founder and CEO  
Heng Hiap Industries



## NextWave Plastics

In 2023, The Circulate Initiative teamed up with Lonely Whale to convene NextWave Plastics, a consortium of multinational companies committed to reducing plastic pollution and building socially responsible, sustainable ocean-bound plastic supply chains. To date, NextWave members have collectively diverted 20,479 metric tonnes of plastic – the equivalent of 2.27 billion plastic water bottles – from entering the waste stream. This is over 80% of its overall goal to divert 25,000 metric tonnes of plastic by 2025.

Looking ahead, NextWave will support member companies to increase and diversify their usage of ocean-bound plastics, identify use cases for hard-to-recycle plastics, and build upon its [Framework for Socially Responsible Ocean-Bound Plastic Supply Chains](#), which provides guidelines to help brands and other organizations provide for the social responsibility of all workers through to the point of collection.

Member companies will continue to collaborate to bring efficiencies to supplier engagement and due diligence, and will have the opportunity to engage in The Circulate Initiative's Responsible Sourcing Initiative. In November 2023, NextWave Plastics announced three new members to the consortium, Heng Hiap Industries, Ocean Recovery Group, and Plásticos Industriales Hondureños SA, expanding NextWave's geographic reach in three regions, the Caribbean, Central America, and Southeast Asia.



### KEY OUTCOME

## 3 new members

In 2023, NextWave added **three new members** to the global consortium, expanding reach across the Caribbean, Central America, and Southeast Asia.

# Contributing to global discussions to advance circularity



FEBRUARY 9, 2023

**Sustainability Week Asia**



MARCH 2-3, 2023

**Our Ocean Conference, Panama**



MAY 17-19, 2023

**Responsible Sourcing Initiative Annual Convening**



MAY 24, 2023

**Regional insights to unlock financing and advance investment in plastics circularity in emerging economies: Southeast Asia**



MAY 26, 2023

**Towards an international treaty on plastics pollution: Reflections on selected issues**



Our Ocean Conference



Our Ocean Conference



Responsible Sourcing Initiative Annual Convening



KEY OUTCOME

**18 industry events**

**and webinars** across eight markets, with contributions on a range of topics on the plastics circular economy.



MAY 30, 2023

**Mobilizing resources to support action to end plastic pollution: Costs, investment needs, and mechanisms to leverage public and private finance**



MAY 30-JUNE 1, 2023

**Sustainability Week US**



JUNE 6-7, 2023

**Sustainability in Packaging Asia**



SEPTEMBER 13, 2023

**Regional insights to unlock financing and advance investment in plastics circularity in emerging economies: Latin America**



OCTOBER 2-5, 2023

**Sustainability Week: Countdown to COP28**





OCTOBER 4-5, 2023

### Corporate Sustainability and Environmental Rights in Asia



OCTOBER 11-12, 2023

### Global Plastics Summit



OCTOBER 17, 2023

### The ASEAN Conference on Combating Plastic Pollution



OCTOBER 18-19, 2023

### The 2nd Asia Green Packaging Innovation Summit



OCTOBER 30-NOVEMBER 1, 2023

### International Solid Waste Association (ISWA) World Congress



Global Plastics Summit



The ASEAN Conference on Combating Plastic Pollution



The 2nd Asia Green Packaging Innovation Summit



ISWA World Congress



NOVEMBER 1, 2023

**Regional insights to unlock financing and advance investment in plastics circularity in emerging economies: Africa**



NOVEMBER 7, 2023

**Unlocking finance to advance a circular economy for plastics: Insights and tools for financial decision-makers**



NOVEMBER 14, 2023

**VOICES: Empowering waste workers on the path to a just transition**



The ASEAN Conference on Combating Plastic Pollution



VOICES: Empowering waste workers on the path to a just transition



VOICES: Empowering waste workers on the path to a just transition

# Our people

We are proud of our diverse global team who bring decades of collective experience in the sustainability and social impact space.



**Michael Sadowski**  
Executive Director,  
USA



**Chever Voltmer**  
Senior Policy Advisor,  
USA



**Madhu Narayan**  
Responsible Sourcing  
Program Manager, **India**



**Santwana Sneha**  
Monitoring and Evaluation  
Lead, **India**



**Shamina Mohamed**  
Communications Manager,  
**Sri Lanka**



**Devi Andriyanti**  
Research Analyst,  
**Indonesia**



**Annerieke  
Douma**  
Director of Programs,  
**Indonesia**



**Priscilla  
Simanungkalit**  
Digital Communications  
Associate, **Indonesia**



**Ellen Martin**  
Senior Advisor, **Singapore**



**Juline Lew**  
Research Analyst, **Singapore**



**Nurul Aisyah Suwandi**  
Research Analyst, **Singapore**



**Umesh Madhavan**  
Research Director, **Singapore**



**Khunapong  
Khunaraksa**  
Director of Operations and  
Strategy, **Australia**



# Financial overview

Circulate Initiative Inc. | Statement of Functional Expenses  
For the year ended December 31, 2023 (with comparative totals for the year ended December 31, 2022)

	Program Services					Supporting Services		Total	
	Amplification	Incubation Network	Monitoring and Evaluation	Other Related Programs	Total Program Services	Management and General	Fundraising	2023	2022
Personnel costs:									
Salaries & wages	\$ 5,688	-	\$ 1,693	\$ 24,864	\$ 32,245	\$ 112,055	-	\$ 144,300	\$ 134,666
Fringe benefits	-	-	-	-	-	\$ 4,459	-	\$ 4,459	\$ 5,755
Total personnel costs	\$ 5,688	-	\$ 1,693	\$ 24,864	\$ 32,245	\$ 116,514	-	\$ 148,759	\$ 140,421
Consulting	\$ 143,572	\$ 12,891	\$ 355,043	\$ 364,711	\$ 876,217	\$ 222,057	-	\$ 1,098,274	\$ 3,305,512
Professional fees	\$ 115,950	-	\$ 18,393	\$ 163,512	\$ 297,855	\$ 121,617	-	\$ 419,472	\$ 227,307
Travel, meals & entertainment	\$ 5,322	-	\$ 8,524	\$ 95,047	\$ 108,893	\$ 12,424	\$ 1,824	\$ 123,141	\$ 31,613
Grants to others	-	-	\$ 13,160	\$ 88,846	\$ 102,006	-	-	\$ 102,006	\$ 117,900
Dues & subscriptions	\$ 6,799	\$ 948	\$ 25,427	\$ 7,772	\$ 40,946	\$ 22,039	-	\$ 62,985	\$ 35,067
Conferences & meetings	-	-	\$ 3,966	\$ 21,073	\$ 25,039	\$ 590	-	\$ 25,629	\$ 2,076
Insurance	-	-	-	\$ 3,087	\$ 3,087	\$ 9,205	-	\$ 12,292	\$ 11,283
Information technology	\$ 3,897	-	-	\$ 166	\$ 4,063	\$ 335	-	\$ 4,398	\$ 4,284
Marketing & advertising	\$ 4,303	-	-	-	\$ 4,303	-	-	\$ 4,303	\$ 72,342
Occupancy	-	-	\$ 61	\$ 425	\$ 486	\$ 2,790	-	\$ 3,276	\$ 3,135
Office expenses	-	-	-	-	-	\$ 201	-	\$ 201	\$ 540
<b>Total expenses</b>	<b>\$ 285,531</b>	<b>\$ 13,839</b>	<b>\$ 426,267</b>	<b>\$ 769,503</b>	<b>\$ 1,495,140</b>	<b>\$ 507,772</b>	<b>\$ 1,824</b>	<b>\$ 2,004,736</b>	<b>\$ 3,951,480</b>

# Partners and collaborators

Our work is supported by strong partnerships with global stakeholders across the plastics value chain, including brands, corporates, investors, governments, development finance institutions, recycling companies, and waste worker associations.

We would like to thank the following organizations for their ongoing commitment and support:





## Impact Metrics Working Group

To better understand the impact of solutions to address plastic leakage, **The Circulate Initiative convenes a diverse group of experts in an Impact Metrics Working Group (IMWG)** that identifies and addresses gaps in data, metrics, and methods.

We thank the following individuals for their support and for their participation in IMWG convenings in 2023:

**Edith Cecchini**, Ocean Conservancy

**Ellie Moss**, Encourage Capital

**Erin Murphy**, Arizona State University

**Federico di Penta**, Deltterra

**Grant Collins**, Charlotte Square Capital

**Jenna R Jambeck**, University of Georgia

**Patarapol Tularak**, Solid Waste Management Association of Thailand

**Sabine Strnad**, Henkel

**Setsuko Oya**, USAID Clean Cities, Blue Ocean

**Shilpi Kapur**, Environmental Management Centre Pvt. Ltd. (EMC)

**Sonia Dias**, Women in Informal Employment: Globalizing and Organizing (WIEGO)

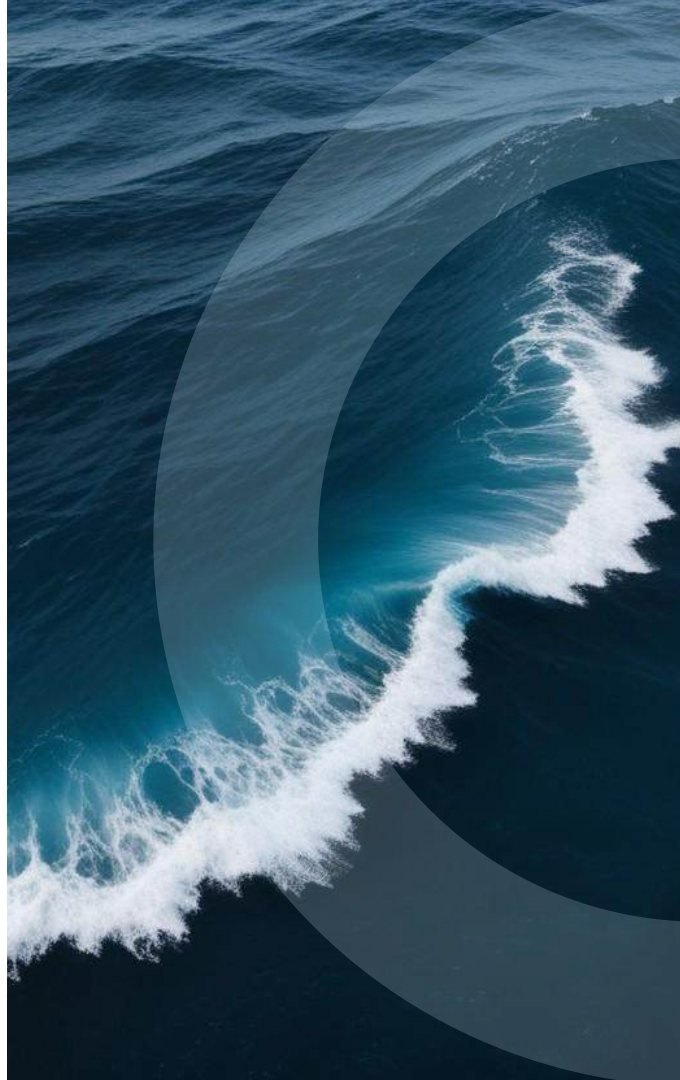
**Suneel Pandey**, The Energy and Resources Institute (TERI)

**Taylor Cass Talbott**, Women in Informal Employment: Globalizing and Organizing (WIEGO)

**Trang Nguyen**, GreenHub

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# The Circulate Initiative Annual Report 2023

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