

A Spotlight on Solutions to end plastic pollution in South-East Asia

23-24 November 2022 | Virtual Event

OUTCOMES REPORT

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**EVENT
HIGHLIGHTS**

AT A GLANCE



12 IMPACTFUL SPOTLIGHT SOLUTIONS FROM THE CROSS-CUTTING THEMES OF INNOVATION, INCLUSION AND COLLABORATION TO TACKLE THE PLASTIC POLLUTION CRISIS.

PARTICIPATION
FROM ACROSS SECTORS
INCLUDING:

- 34%** FROM THE PRIVATE SECTOR
- 25%** FROM CIVIL SOCIETY
- 14%** FROM INTERNATIONAL ORGANIZATIONS
- 12%** FROM GOVERNMENT AGENCIES.

1024
REGISTERED
PARTICIPANTS
FROM 49 COUNTRIES

76%
FROM THE
ASIA-PACIFIC
REGION

57%
WOMEN
PARTICIPANTS

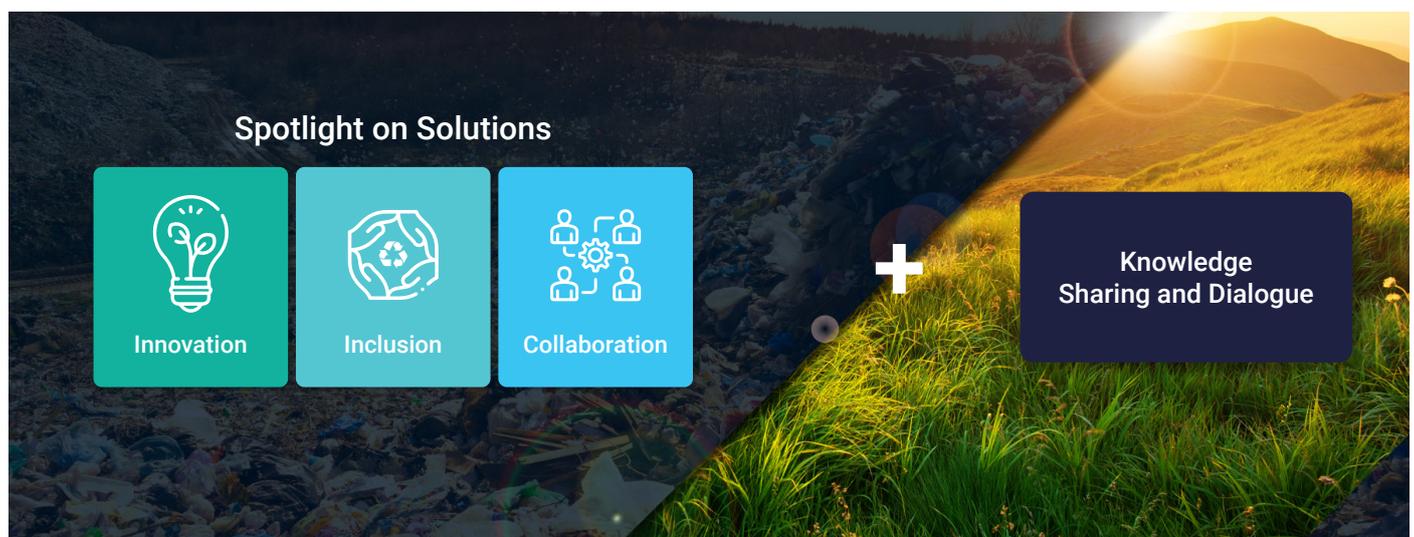
KEY ACTION POINTS BROUGHT TO THE FIRST MEETING OF THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC) TO DEVELOP A LEGALLY BINDING INSTRUMENT ON PLASTIC POLLUTION.

BACKGROUND

The triple planetary crisis of **climate change**, **pollution**, and **biodiversity loss** needs to be addressed for humanity to have a viable future on this planet. Plastic pollution is a key contributor to this crisis and is choking our seas and threatening ecosystems and livelihoods. It is a by-product of an essentially linear system in which over 75 per cent of the material value of plastic is lost following a short first use cycle.

Transitioning from this linear system to a circular economy demands impactful solutions across the plastic value chain from **designing**, **producing** and **consuming** products to **post-consumer waste management**.

SEA of Solutions (SoS) – SEA circular's annual flagship event – has served as an avenue to exchange best practices, enable meaningful dialogue and empower stakeholders to promote circularity in the plastic value chain within South-East Asia.



INTRODUCTION

[SEA of Solutions \(SoS\)](#) is the annually occurring partnership event towards solving plastic pollution at source, convened by [SEA circular](#), an initiative from the UN Environment Programme (UNEP) and the Coordinating Body on the Seas of East Asia ([COBSEA](#)), through the SEA circular project supported by the Government of Sweden.

Over the last three years, SoS has served as a platform that enables sharing of information, best practices, meaningful dialogue, facilitate collaboration and partnership opportunities in promoting circularity in the plastic value chain among stakeholders in South-East Asia.

It was first launched in 2019 together with the Government of Thailand as co-host, gathering over 500 registered participants from more than 40 countries. The first annual SEA of Solutions event was successful in generating dialogue and promoting opportunities for future collaboration and partnerships under

the unifying mantra of “Together, less plastic wasted”. Since 2020, SoS has been held virtually because of COVID-19 travel restrictions. That year, about 750 participants from 50 countries explored and address priorities in the region to help combat a resurgence in the use of plastics in response to the impacts of the pandemic.

In 2021, over 800 registered participants highlighted the urgency for collective actions to address the issues of marine litter and plastic pollution, and shared inspiring initiatives that were happening across South-East Asia and around the world.

SEA of Solutions 2022 spotlighted unique and impactful solutions that transform the linear plastic value chain into a circular one – from designing, producing and consuming to post-consumer waste management. It was held virtually on 23 and 24 November 2022 with EB Impact as event partner.

PROGRAMME

This year's theme was "A spotlight on solutions to end plastic pollution in South-East Asia", and spotlighted [12 unique and impactful solutions](#) along the plastic value chain covering three cross-cutting themes – **Innovation, Inclusion** and **Collaboration**. The spotlighted solutions exhibited effective approaches to tackle the plastic pollution crisis including:

- **Plastic avoidance** and alternative solutions design
- Expanding lifecycle by the **reduction of plastic usage** at design and consumption stages
- Removal and **better recycling initiatives** to allow new post-consumer applications.
- In addition, the **inclusive** and **sustainable** nature of the solutions will be brought to fore through how they address gender, **human rights** and **responsible business** conduct.

Alongside the solutions spotlight, SoS 2022 hosted a set of keynotes, special remarks and panel discussions featuring regional actors and experts in plastic circularity, bringing together businesses, policy makers, communities, youth, civil society and development actors.

It also brought about some recommendations for the multi-stakeholder forum during the Intergovernmental Negotiating Committee (INC) meeting in Uruguay through an insightful panel plenary discussion, "How can a legally binding instrument to end plastic pollution be innovative, inclusive and collaborative?" on day 1 (23 November). This plenary was held in partnership with the World Economic Forum (WEF) Global Plastics Action Partnership (GPAP) to bring together policymakers, leaders from the private sector and businesses, youth representatives, civil

society, and the investment community to share views in setting up the path towards an internationally legally binding instrument on plastic pollution.

[Twelve inspiring solutions](#) were selected to showcase their novel approaches spanning from plastic avoidance and alternatives to reducing plastic usage, removing plastic waste and better recycling for new post-consumer applications, innovative financing models and incentivising behavioural change approaches. In addition, the solutions spotlighted included special attention to gender, human rights and responsible business conduct.

The panel discussion on the second day (24 November), "**How is an inclusive and rights-based approach critical to sustainable market mechanisms for plastic circularity?**" focused on the importance of a human rights-based approach and gender sensitivity in circularity initiatives, and how to engage and support those most affected by the plastic pollution crisis. Panelists exchanged insights on how responsible business conduct could drive sustainable positive impact to all actors along the plastic value chain.

The key action points from SoS 2022 were to be brought to the first INC meeting, to be held from 28 November to 2 December 2022, toward developing an international instrument on plastic pollution.

Session recordings, visual highlights and other resources are available at <https://sos2022.sea-circular.org/>

Time: (GMT+7)	Day 1 – 23 November 2022	Time: (GMT+7)	Day 2 – 24 November 2022
1300h	Opening Session <ul style="list-style-type: none"> • Welcome remarks by UNEP • Opening speech by SIDA • Setting the scene (Brief video) and Introduction of SoS 2022 	1300h	Opening Session <ul style="list-style-type: none"> • Welcome remarks by UNEP
1325h	In partnership with World Economic Forum: Keynote Speech <ul style="list-style-type: none"> • Beat Plastic Pollution: Towards an international legally binding instrument Plenary Discussion <ul style="list-style-type: none"> • How can a legally binding instrument to end plastic pollution be innovative, inclusive and collaborative? 	1315h	Spotlight on Solutions (Inclusion) <ul style="list-style-type: none"> • Introductory video • Spotlight of solutions that manifest inclusive interventions for circularity in the plastic value chain • Q&A session
1455h	Spotlight on Solutions (Innovation) <ul style="list-style-type: none"> • Introductory video • Spotlight of innovative solutions driving circularity in the plastic value chain • Q&A session 	1430h	Keynote Speech <ul style="list-style-type: none"> • A two-fold crisis: Plastic pollution and inequality Plenary Discussion Plenary Discussion <ul style="list-style-type: none"> • How is an inclusive and rights-based approach critical to sustainable market mechanisms for plastic circularity?
		1530h	Spotlight on Solutions (Collaboration) <ul style="list-style-type: none"> • Introductory video • Spotlight of solutions showcasing collaborative approaches for circularity in the plastic value chain • Q&A session
1610h	CLOSING SESSION <ul style="list-style-type: none"> • Closing remarks • Photo opportunity & end of day 1 	1645h	CLOSING SESSION <ul style="list-style-type: none"> • Outcomes summary from SoS 2022 • Key messages from SIDA • Closing remarks • Photo opportunity & end of day 1



**SESSION
HIGHLIGHTS**

DAY 1

Opening session

Welcome remarks:

Dechen Tsering

Director, Regional Office for Asia and the Pacific, UN Environment Programme

Opening remarks:

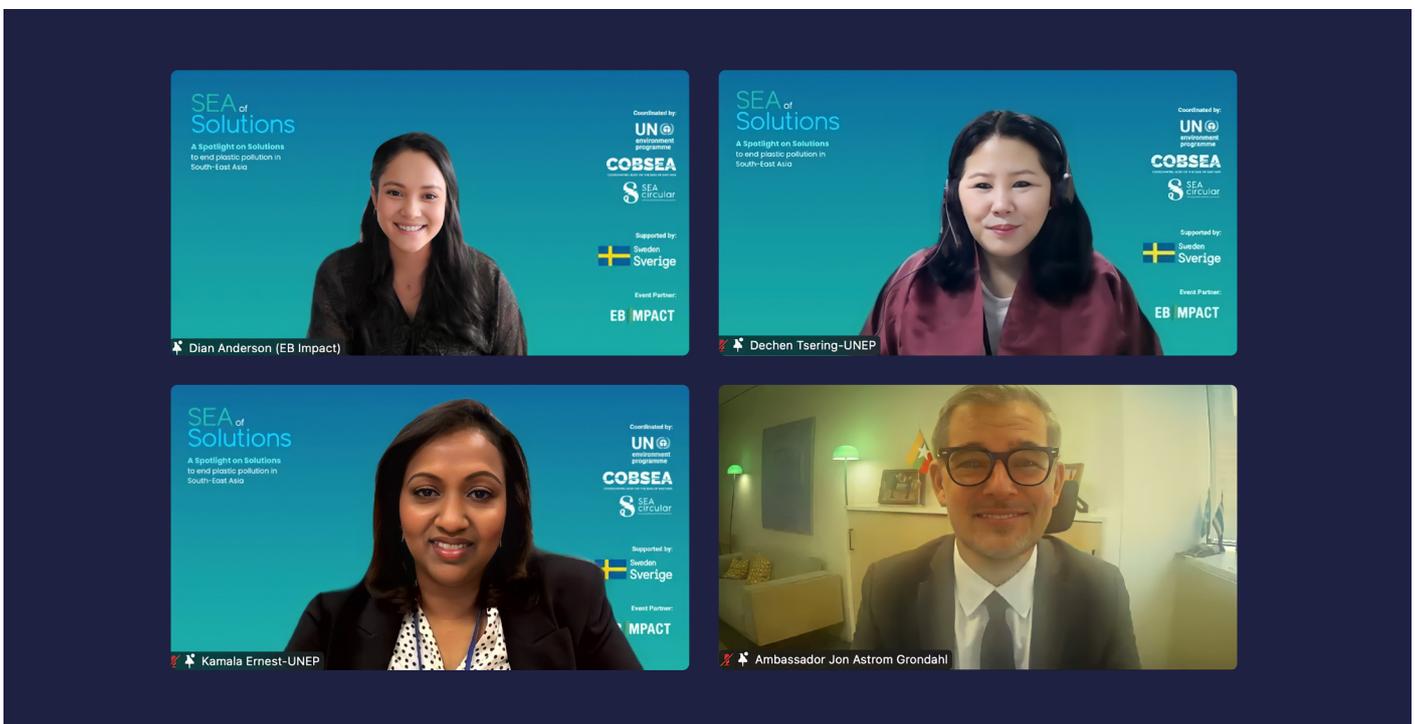
H.E. Jon Åström Gröndahl

Swedish Ambassador to Thailand

Context Setting – Video and Introduction to SoS 2022:

Kamala Ernest

SEA circular Project Coordinator, Regional Office for Asia and the Pacific, UN Environment Programme



The opening session of the first day of SoS 2022 confronted the **challenges** that South-East Asia faces – both as victim and perpetrator – of **plastic pollution**.

The region accounts for 49 per cent and consumes 38 per cent of plastics made globally; and just six of the 10 member States of the Association of Southeast Asian Nations (ASEAN) generate a combined 31 million tonnes of plastic waste annually.

The plastic pollution crisis not only affects the environment but also impinges on human rights that are protected under international law. These include the right to live – to the **highest attainable standard of health and healthy environment** – housing, water and sanitation, adequate food and non-discrimination, it was noted. The right to information, participation and effective remedy are also undermined by the crisis. But it was observed that while the linear plastic system poses a challenge, it also creates an opportunity to reconsider the economy and rethink the use of plastics so that more value can be derived from them.

It was stated that **innovation, inclusion and collaboration** are essential in the formulation of solutions to the plastic crisis.

The region has proven its mettle in coming up with innovative solutions that take out unnecessary plastic in design and keep necessary plastic out of the environment, it was observed. Small and medium enterprises, 12 of which were later spotlighted at the event, are leading the charge.

Addressing the plastic crisis must also entail meaningful partnerships that can transform the take-make-waste economy into a circular system and empower all the actors across the plastics value chain, including the informal waste management sector and communities that are affected by waste pollution, to ensure that no one is left behind.

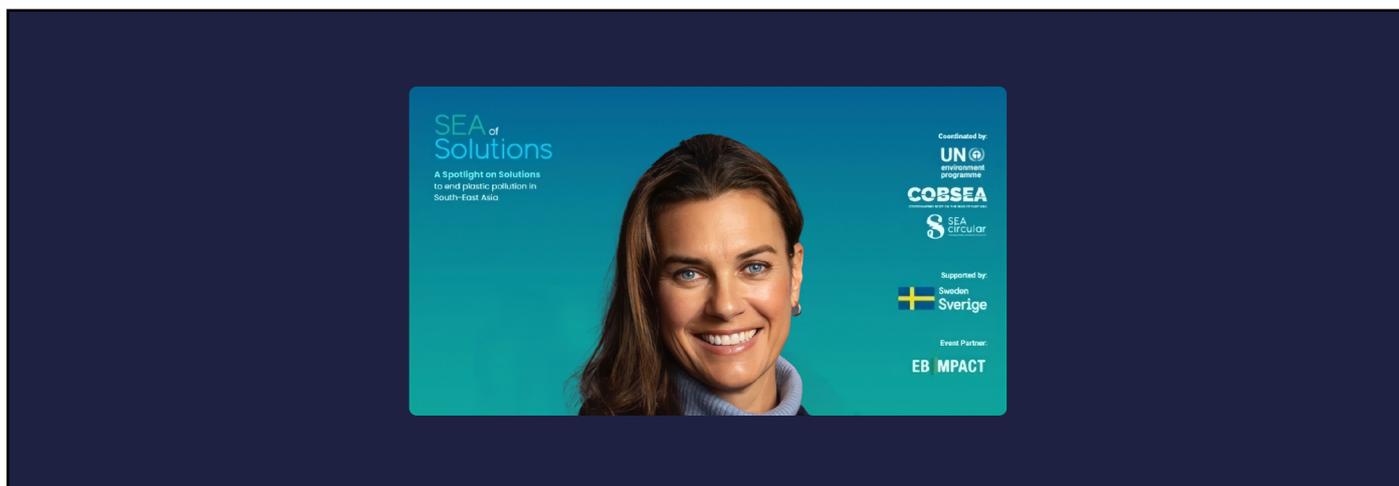
Ahead of the first INC meeting to develop a legally binding instrument on plastic pollution and marine litter in Uruguay, which would be taking place just after SoS 2022, from 28 November to 3 December, it was noted that a **global treaty would be the most effective tool to combat plastic waste**.

All stakeholders in the region were encouraged to work towards this goal.

Keynote Speech 1: Towards an international legally binding instrument on plastic pollution

Kristin Hughes

Director, Global Plastic Action Partnership and Member of the Executive Committee,
World Economic Forum Geneva



We cannot recycle our way out of the plastics crisis, but a treaty to end plastic pollution that accounts for innovation, collaboration, transparent data and funding presents an opportunity to effectively address the problem. This was the message of Kristin Hughes, Director of the Global Plastic Action Partnership, during her keynote address at the first day of SoS 2022.

The need to reduce plastic waste in South-East Asia, which accounts for 20 per cent of global plastic production and waste generation, is urgent given its significant costs to the region's economies. It is estimated that the damage caused by plastic waste on the region's key blue economy sectors reached US\$1.2 billion in 2015 alone. Globally, it is estimated that keeping to the status quo would cost 700,000 jobs, while shifting to a circular economy could create 100 million jobs by 2030.

Upcoming negotiations for an international legally binding instrument on plastic pollution paves the way for the **creation of economies that address the full life cycle of plastics**, but talks must factor in **transparency and accountability** so that global progress towards eliminating plastic pollution can be tracked. Consistent **data collection** and monitoring mechanisms are also needed in target setting and data analysis as well as in mitigating plastic waste.

The **collective action** of private and public leaders, industry and communities both at the international and national levels is also essential in crafting the future treaty. On the country

level, the formulation of national action plans that support countries' transition towards an environment that regulates plastic use can only be effectively implemented through strong coordination among ministries and public powers, businesses and civil society groups.

Internationally, these action plans, along with experiences and learnings of countries during the transition period, help in setting realistic requirements in the formulation of the future treaty.

Innovative business models that are key to fostering an economy that is based on the principles of lowering environmental impact, reducing single-use plastic, retaining plastic in the economy, and developing sustainable designs and materials must also be supported.

Coherent and effective policies that ensure sustainable production and consumption by limiting new plastic production, increasing energy efficient production processes that use alternative materials and lower carbon footprint, raising recycling rates and setting up infrastructure for efficient waste management, and mitigate plastic waste leakage must be put in place.

New funding mechanisms must also be found to incentivise private sector investment in these innovative solutions. Blended finance approaches can broaden the funding space that the World Bank cannot service by itself.

Plenary Discussion: How can a legally binding instrument to end plastic pollution be innovative, inclusive and collaborative?

Moderator

Jessica Cheam

Founder and Managing Director, Eco-Business

Panelists:

Ellen Martin

Chief Impact Officer, Circulate Capital

Zuhair Ahmed Kowshik

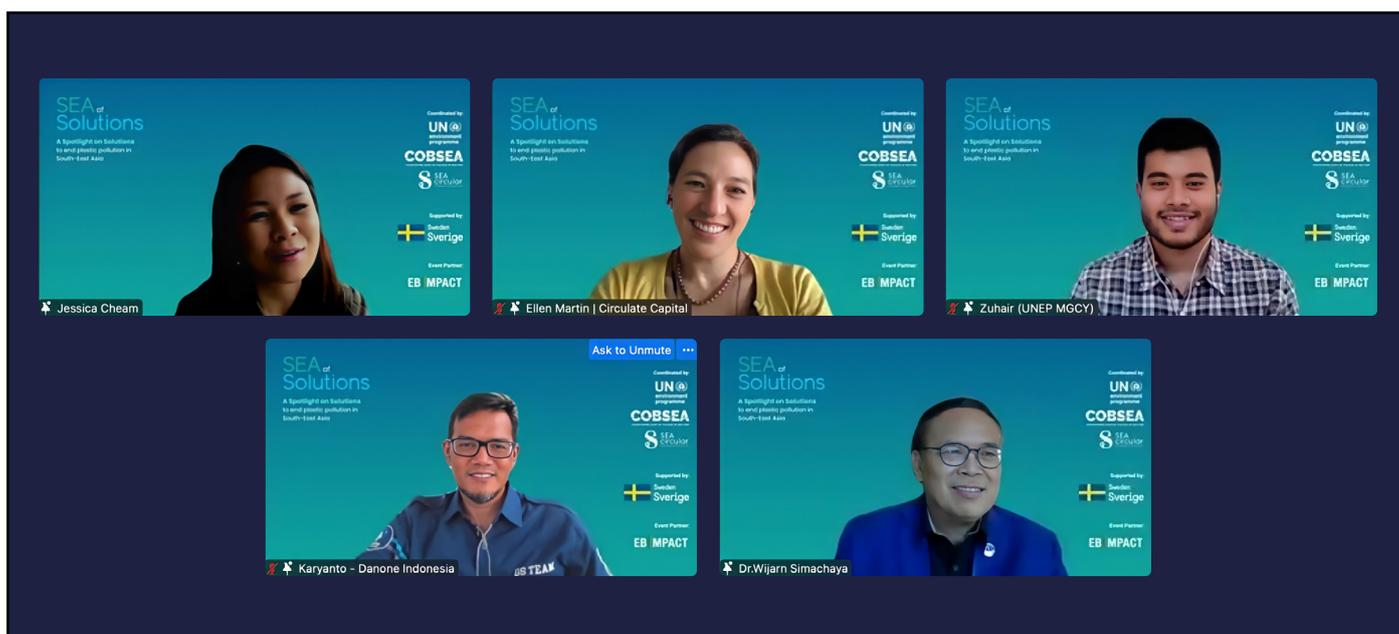
Regional Facilitator – Asia and the Pacific, Children and Youth Major Group of UN Environment Programme

Karyanto Wibowo

Director for Sustainable Development, Danone Indonesia

Dr. Wijarn Simachaya

President, Thailand Environment Institute



A poll that was carried out to kick off panel discussions on the first day of the conference revealed that among four possible plastic waste elimination actions, participants of SEA of Solutions 2022 rated banning single-use plastic and coming up with packaging recyclability standards as the concerns that should be prioritised during the upcoming INC meeting for a legal instrument to end plastic waste. These were followed by incentivising behaviour change and harmonising standards.

Apart from the four concerns that were indicated in the poll, speakers who represented industry, investors, civil society and environmental institutions also highlighted actions and issues that should be considered by negotiators in crafting the instrument.

The panel heard that collaboration during the negotiations for the agreement is crucial in ensuring that the resulting treaty would be practicable and that the private sector is one of the

key actors in ensuring an outcome that is realistic and doable. Among the industry expectations outlined was for the instrument to set the standards for packaging to ensure plastic recyclability, and the incorporation of **recycled and renewable content** in the manufacture of packaging materials; advance the **circular economy** and enable consumer participation; and promote **extended producer responsibility** (EPR) strategies that are country- and context-specific.

The private sector also expects the agreement to inform national plastic waste reduction strategies, as some national action plans lack clear provisions on compliance and enforcement, scopes and responsibilities, and funding. Others are not legally binding, making the implementation of anti-plastic waste measures problematic.

It was noted that while businesses are already shifting towards a circular system and some companies have set policies for

plastic waste prevention, concerns such as the **price gap** between recycled and virgin plastics need to be addressed for the transition to make business sense. It was suggested that the price gap be closed, or an incentives scheme be formulated.

The conversation around the treaty must also **engage civil society** – including the youth, who can bring much to the negotiating table – so that all voices, including those of vulnerable sectors, are heard. Civil society groups are advocating for the inclusion of monitoring mechanisms that would track the progress of stakeholders in ending plastic waste.

Representatives noted that the fight against plastic pollution will not be easy with pushback from companies. It was also stressed that the impact of the plastic waste problem goes beyond climate change – it is also an issue of **human rights and public health**. The urgency of addressing plastic pollution was stressed, as it was noted that it is only one part of a much bigger waste stream.

Due to differences in interests and advocacies, it was acknowledged that “scepticism” among stakeholders exist, but it was also emphasised that everyone has the same goal of working towards a sustainable model for the circular economy and a plastics-free future. Hence, multi-sector initiatives such as Thailand’s Public–Private Partnership for Plastic and Waste Management are instrumental in bringing different stakeholders to work together to end plastic waste.

The importance of coming up with **systems that advance transparency and inclusive policies** during the negotiations for the instrument was also underscored as a means to promote innovative solutions and make these scalable and viable.

It was suggested that the treaty could be a gamechanger in **blended financing** for capacity building of communities and innovative solutions, if it advances transparency and inclusive policies. On transparency, it was noted that understanding the whole value chain as well as tracking the progress not only of countries but also of business solutions in the fight against plastic waste are important for investors to make informed decisions. Without essential information that would allow them to properly assess their baselines, investors would opt to stay on the side-lines or walk away.

Measurable, **reliable and verifiable data** also make managing plastic waste easier, the panel highlighted. Further, having proper data would also help in resetting government policies,

determining the right approaches for reducing plastic waste, finding financial solutions, and unlocking innovations for addressing the plastic crisis. Currently, data on plastic waste is spotty, as the panel pointed out. The lack of transparency and the absence of consistent data was attributed to “a lack of formality and competing interests”.

It was also noted that the instrument must have **inclusive policies** that consider the interests of everyone across the value chain, including informal waste workers. It should also be crafted through a gender and equity lens. It was suggested that giving all the stakeholders across the value chain a seat at the table ensures that all inputs are factored in during discussions for the instrument.

The panel emphasised that the instrument should pave the way for the extension of grant-based financing and other funding options to least developed and low to middle income countries.

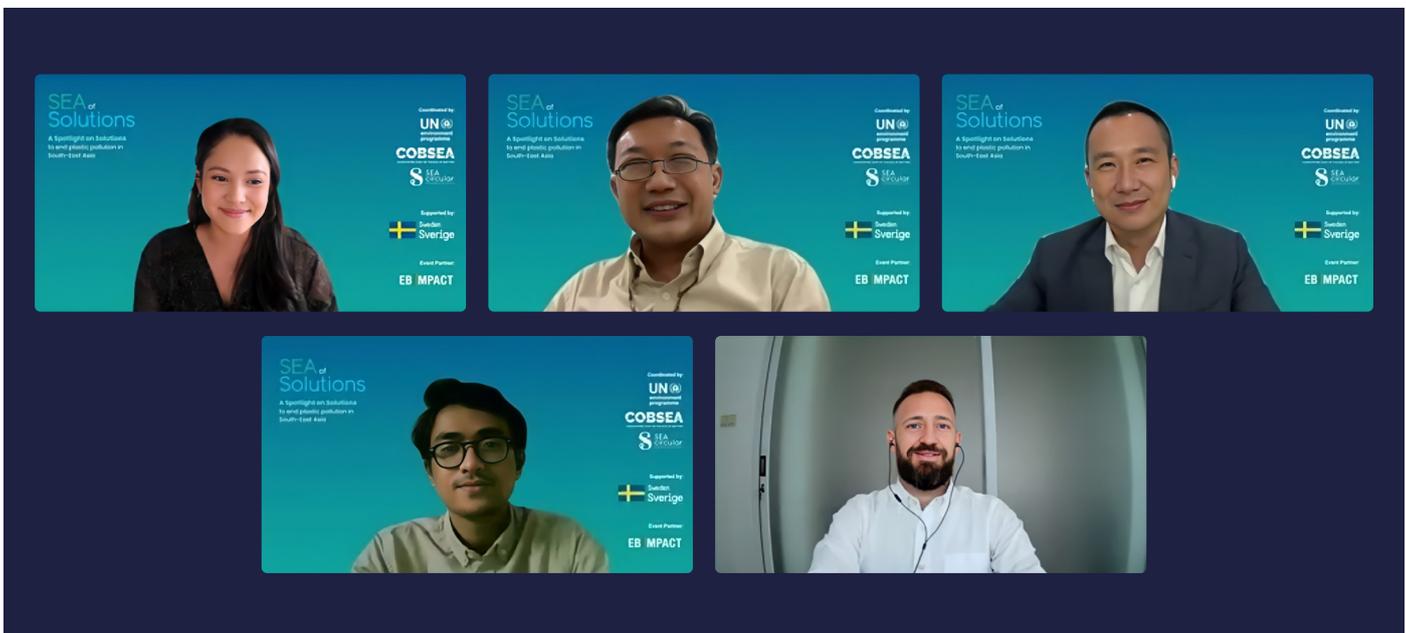
The feasibility and practicality of a ban on plastic production was also tackled by the panel. It was agreed that a holistic approach must include the proposition in the INC agenda, as it was noted that plastics pose health hazards and may be expensive to recycle. However, it was also emphasised that the resulting stipulations must account for the viability and sustainability of business models, ensure that alternative solutions are aligned with climate goals, and consider social impacts across the value change. It was suggested that EPR, which requires companies to take responsibility for the plastic they generate, may be a more workable option than a complete plastic production ban.

On addressing plastic waste that is difficult to recycle, such as low-value flexibles, it was noted that industry has been experimenting on solutions, including moving to monolayer from multilayer packaging, and using them for construction boards as well as researching alternative materials. It was pointed out that efforts to retain plastic that is difficult to recycle in the economy need to be complemented with **proper collection management** as well as standards that would allow for proper coding of plastic packaging.

The panel was reminded that the fight against plastic pollution should not only be focused on ending plastic waste generation. In the event that the outcome of the negotiations leads to the issuance of a strong legally binding instrument to stop plastic waste production, stakeholders must not forget about the plastic that is already choking the oceans and find solutions for this existing crisis.

Spotlight on Solutions (Innovation)

<p>Nature based food packaging: An innovative alternative to single-use plastic</p>	<p>Dr. Weerachat Kittirattanapaiboon CEO and Founder, Gracz</p>
<p>Transforming marine litter into new manufacturable materials through inclusive approaches</p>	<p>Seah Kian Hoe Founder and Managing Director, Heng Hiap Industries Sdn. Bhd.</p>
<p>Targeting single-use plastic at the source: technology-driven reusable and returnable packaging</p>	<p>Bintang Ekananda Founder and CEO, Koinpack</p>
<p>Rethinking drinking water system with zero plastic bottles</p>	<p>Nicolas Perez Founder and CEO, PT Pran Indo Permata Abadi (P.I.P.A.)</p>



Four small and medium enterprises from different parts of the region spotlighted for their innovative business propositions that effectively address plastic waste at source. They demonstrated concrete ways to “bend the linear economy to make it circular”, reduce carbon emissions and prevent plastic waste leakage.

Gracz – Biodegradable Packaging for Environment Company, a Thai company, converts plant fibre from virgin agricultural waste (bagass, bamboo, water hyacinth, palm and rice straw) into plastic-free compostable and microwavable food packaging materials, oil absorbing plates, trays, medical equipment (urinals and urine containers, kidney trays, dressing sets), face masks, toys and planters that start degrading 45 days after they have been disposed of. The “nature-to-nature” materials, marketed under the brand name Gracz, are produced using solar energy, reduce PM 2.5 emissions from the burning of agricultural waste and eliminate plastics at source. Two million pieces of the sustainable materials are produced every day. The company can replace 220 million plastic products annually.



Heng Hiap Industries Sdn. Bhd. – This Malaysian end-to-end plastic recycling company collects marine litter and segregates plastic that cannot be mechanically recycled to turn it into naphtha, a feedstock for making plastics that is commonly sourced from fossil fuels. The company, which has intercepted 2,700 tonnes of ocean-bound plastic from 112 collection points and produced 303 tonnes of plastic-derived oil, operates without taking electricity or water from the grid. Plastics are cleaned with collected rainwater and production is powered by a one-megawatt pyrolysis plant, which generates electricity from unrecyclable plastic waste.



Koinpak – Treating bottles as assets rather than disposable product packaging, this Indonesian company has developed a refilling system for personal care and household items to reduce flexible packaging – which make up 76 per cent of mismanaged plastic waste in the country – at the source. The company works with consumer goods manufacturers and food producers for the packaging of their products in reusable and trackable containers that can be as small as 100ml to capture the mass market. In addition to their own direct sales efforts, the company taps low-income housewives to sell the products. End-users are incentivised to return the trackable empty bottles with cashbacks on their next purchases. The company gives consumers two options for returning empty containers – they can either go back to the retailers they bought the products from, or ask Koinpak to pick these up. Currently, the bottles can be reused up to five times. The company is developing a prototype for a transparent trackable bottle that will be made up of 30 per cent recycled plastic and can be reused up to 20 times. To date, 349,000 single-use flexibles have been replaced by Koinpak's system.



PT Pran Indo Permata Abadi (P.I.P.A.) – This company helps hotels in Indonesia reduce their dependence on commercially produced bottled water by providing them with a water purification and refilling system that is designed to produce clean and safe drinking water from Indonesia's notoriously undrinkable tap water, and to bottle this in reusable glass containers on-site. This allows hotels to drastically decrease their contribution to natural water exploitation, plastic waste generation and transport-induced air pollution. The company notes that a 400-room hotel can remove 500,000 plastic bottles a year from its operations and get its investment back in 14 months using this system.



Audience Engagement

In the Q&A session after the companies' presentations, they stressed the key role investments play in scaling the business propositions, as was the challenge of convincing a price-sensitive market like Southeast Asia to pay more for sustainable products and services.

It was noted that some plastic waste solutions are eventually cheaper than the systems that are currently in use, as is the case of replacing commercial bottled water use with a purification and refilling system that uses municipal water. It was also pointed out that streamlining the supply chain to reduce markups and economies of scale bring down the cost impact to end users.

It was underscored that the cost of keeping to a linear economy is steep even if it is not incurred by direct consumers. **Plastic waste exacts a high price on society, the country and the planet.** Reusing materials through a circular system lowers overall cost; plastic can be reused up to seven times before its molecular structure collapses, after which it can undergo a chemical process to turn it into feedstock for making new plastics, allowing for the perpetual reuse of the material, it was illustrated.

The market's perception of the efficacy, safety and cleanliness of products from alternative solutions emerged as a key parameter for the success of businesses that offer technologies to stop plastic waste at the source. It is paramount that companies ensure that users are confident in using their products and systems by being transparent with their quality control and safety standards as well by engaging their clients in deep communication to address all concerns.

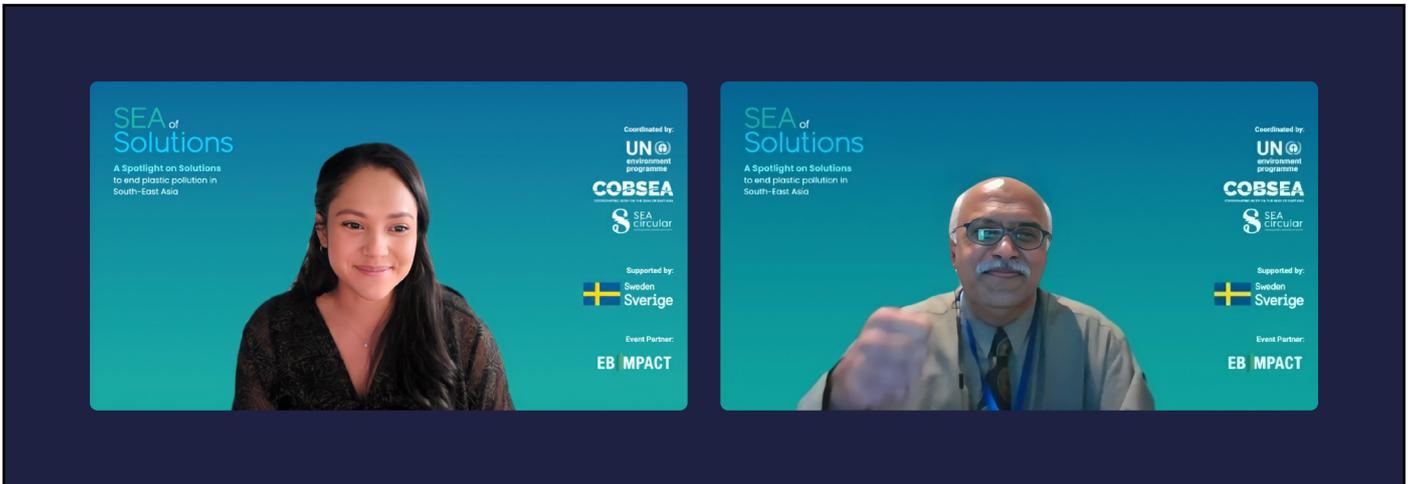
Consumers are to also share in the burden of addressing plastic waste. It was noted that the root of the plastic crisis is not necessarily the material – which is cheaper, lighter, and easier to clean than other packaging options – but the habit of discarding things. As such, **educating the market to reuse plastic packaging** is crucial.

Legislation on reducing the use of disposable, single-use plastics would also support sustainable solutions – it was said that compelling consumers to switch to environmentally friendly options through regulations is just as important as bottom-up approaches to end plastic waste.

Closing Remarks

Mushtaq Ahmed Memon

Regional Coordinator for Resource Efficiency, Regional Office for Asia and the Pacific,
UN Environmental Programme



The closing remarks for the first day of the conference highlighted opportunities in plastics where most see challenges. Beyond recycling, the need for a holistic approach that pushes a resource circularity model – which limits the production of new plastic, raises recycling rates and reduces leakage of plastic waste into the environment – was advanced.

The prevailing sentiment in the sessions that small and medium enterprises lead the way in creating innovative solutions to limit plastic waste was echoed, as was the need to provide them with an enabling environment and funding support.

It was observed that the innovative business models that were spotlighted in the first day of the conference were able to show that nature-based packaging, the conversion of marine litter into high quality products, refilling systems for homecare and personal care products to limit the proliferation of single-use plastics, and solutions that allow for clean water to be packaged with more sustainable alternatives to plastic bottles are possible. These businesses were also seen to empower micro-entrepreneurs and raise public awareness on plastic waste reduction.

Inclusivity and engagement of communities and civil society organizations were cited as essential to the INC discussions for a legal instrument that aims to end plastic waste. It was also reiterated that the future treaty must protect all workers across the value chain, including waste workers, and account for gender and equity.

Data availability and transparency as well as technology sharing were identified as key factors in changing policies and solutions on plastic production and recycling.

The need for funding to support communities and solutions for planning and capacity building of waste collection and recycling was also stressed.

It was affirmed that the main goal of the conference remains to be the transition of the plastic value chain towards a circular system that eliminates the use of unnecessary and hazardous plastics, designs plastics to remain in the economy, ensures the sustainable recovery and recycling of plastics, and properly manages plastics that cannot be recycled.



DAY 2

Opening session

Mahesh Pradhan,

Regional Coordinator for Resource Efficiency, Regional Office for Asia and the Pacific, UNEP



In his opening of the second day of SEA of Solutions 2022, the [COBSEA](#) Coordinator shared the recent establishment of the Regional Capacity Center for Clean Seas (RC3S) as a Regional Activity Centre of COBSEA in Bali Indonesia. He also announced the establishment of the East Asian Seas Regional Node of the Global Partnership on Marine Litter (GPML) and the launch of its [web platform](#), developed with support through SEA circular.

The Regional Node platform provides access to policies, resources and a map of good practices, to the Regional Research Database and Network, and to a range of capacity **building and learning resources**, linked to the Global Digital Platform of the GPML.

The resumed session of the Twenty-fifth Intergovernmental Meeting of COBSEA in Hanoi, Viet Nam, reaffirmed COBSEA country commitments to reduce and prevent marine litter, strengthen and harmonize monitoring of the sources, flows and impacts of marine litter, and to share knowledge for coordinated

action through the Regional Node. Quoting UNEP's Executive Director, it was noted that similar to a water spill in the kitchen, turning off the tap on plastic pollution was the first urgent step, but that the leak had to be cleaned up too.

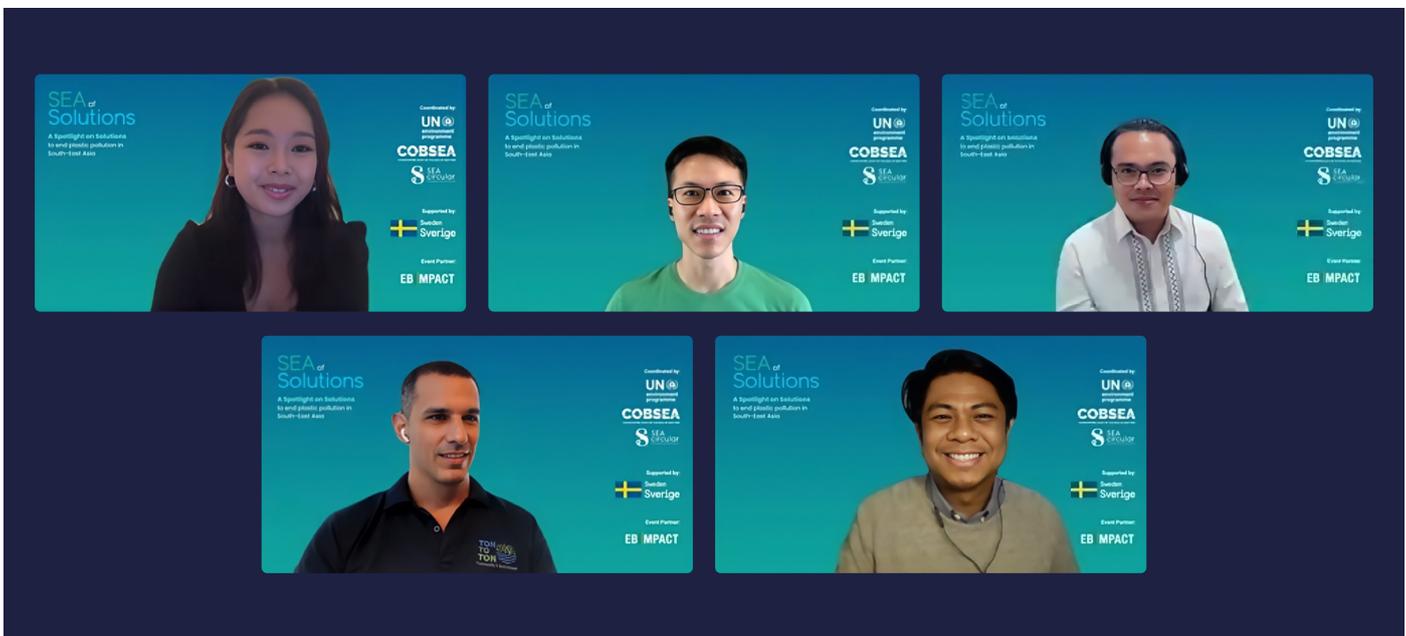
The region's vulnerability and contribution to plastic waste as well as its potential for creating solutions was noted. It was reiterated that stakeholder participation, coordination, knowledge exchange and partnerships were crucial to move forward to an effective and inclusive international instrument on plastic pollution.

Participants were encouraged to explore partnerships and coordinate efforts as well as replicate good practices to address the transboundary challenge of plastic waste. It was noted that the event brings stakeholders to share and promote solutions and that the event could play a small part in delivering the solutions needed.



Spotlight on Solutions (Inclusion)

<p>Inclusive plastic recycling: Smart recycling bin infrastructure</p>	<p>Nattapak Atichartakarn CEO and Co-Founder, Trash Lucky</p>
<p>Wala-Usik: Micro-enterprise driven inclusive solution to zero waste communities</p>	<p>Dave Albao Executive Director, Philippine Reef and Rainforest Conservation Foundation Inc.</p>
<p>Community-based plastic credit solution: a holistic attempt to make coastlines plastic-free</p>	<p>Barak Ekshtein Founder and CEO, TonToTon</p>
<p>Sustainable and ethical collection infrastructure for plastics: A model for inclusion within circular economies</p>	<p>Joash Paragas Operations Manager, Plastic Bank</p>



The second Spotlight on Solutions demonstrated that inclusive plastic waste reduction models can lead to transformative outcomes. When the **community participates in shaping solutions** that account for their needs, and when labour is properly compensated, engagement increases. It was indicated that understanding the circumstances of target communities and marginalised sectors, rather than blaming them for their consumption habits, paves the way for community-driven solutions – and behaviour change.

Four plastic waste reduction models were given the floor for their inclusive initiatives:

Trash Lucky – The Thai company converts trash to lucky draw tickets while setting up an infrastructure for efficient waste collection. Central to its business model are the 24 smart recycle bins around Bangkok that serve as drop off points for plastic, glass, paper and metal waste; ticket dispensers; and alert systems for trash collection. Those who dispose of recyclables in the smart bins are issued tickets to a draw for prizes such as gold bullions and shopping vouchers. Meanwhile, the bins alert informal waste workers via phone when they are full, letting them know the weight and location of the recyclables that are ready for pick up. This streamlines the waste collection process of workers who otherwise conduct their business by going house-to-house around communities, and redounds to savings on transport costs and collection time, as well as higher income. The three-member team has been instrumental in recycling 150,000 kg of waste in Thailand.



Wala Usik – A micro-enterprise project of the Philippine Reef and Rainforest Conservation Foundation, it provides technical and financial assistance to operators of eateries and sari-sari stores – ubiquitous community-based sundry shops that retail fast moving consumer goods in small volumes – for repackaging items sold in single-use plastics and sachets. The foundation tests plastic reduction schemes – such as refilling, alternative packaging, reuse systems and deposit-return models – with micro-enterprises to help them transition towards circular practices. The initiative delves into understanding the circumstances of both the micro-enterprises and their market. This leads to solutions that are designed with and driven by the community. The project's work with 21 micro-enterprises has resulted in the development 18 sustainable packaging products or concepts and 12 schemes, technologies and mechanisms for reducing single-use plastic, and stopped the use of 100,000 pieces of plastic packaging.



TonToTon – The Cambodian firm presents itself as an alternative to selective plastic collection for taking and treating all kinds of marine litter, including plastics that remain after recyclables are removed because they have no economic value. Under its community-based plastic credit system, TonToTon works with informal waste pickers for the collection of all kinds of plastic litter on the one hand, and presents companies with an opportunity to sponsor the removal of plastic waste from the environment equivalent to the plastics they use on the other. Clean non-recyclable plastics that are collected are turned into building materials, while dirty and degraded ones become alternative energy sources. The company has provided 450 jobs, including for women, who collected 57 per cent of the 2,400 tonnes of mismanaged waste it has taken out of the environment. It has also prompted behaviour change among its waste collectors, with dumping and burning stopped and plastic consumption reduced in 80 per cent of their households.



Plastic Bank – The global movement that is implemented in six countries propagates a plastic waste-to-currency model that aims to make an impact on the economy, environment, and society. Working with stakeholders across the plastic value chain, Waste Bank ensures that the plastic waste is captured and put back into the economy, and does not make its way to oceans. Plastic waste collected by its community members are brought to collection points that are set up within 50km of coastlines. A proprietary app is used to compensate members as well as to track the plastic impact of brand owners. Apart from the income they generate, members are also provided with financial literacy training and health education, and get free groceries and other basic necessities. Meanwhile, the collected plastic is recycled as Social Plastic, a feedstock used for the creation of different kinds of plastic materials that re-enter the economy.



Audience Engagement

During the discussion following their presentations, presenters identified many challenges in the deployment of their solutions, including: access to funding for scaling; communities getting turned off by the costs incurred from deploying alternative solutions; sanitation and hygiene concerns, particularly in refilling schemes for personal care and cosmetic products; regulations that hinder the development of innovations for plastic circularity; and limited access to smartphones in communities for technology-based solutions.

It was also stressed that **public perception of plastics needs to change**. Only in seeing the inherent value and benefits of plastics will people stop them from getting into the ocean and put them back into the economy, it was noted. On instilling **behaviour change**, it was emphasised that among consumers, incentives,

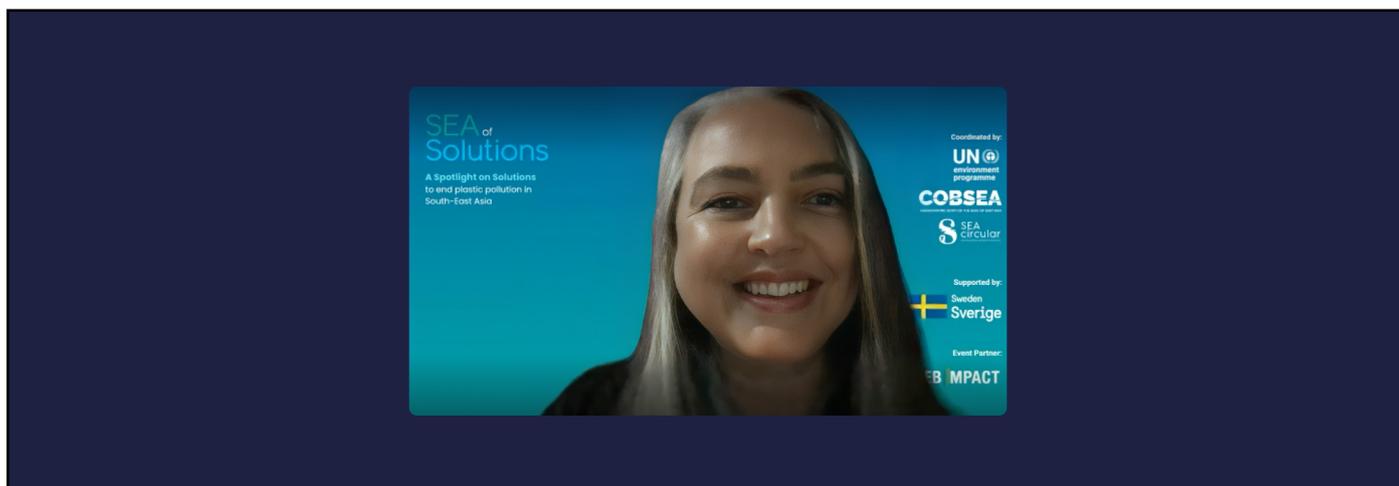
while helpful, were not enough; convenience as well as access were needed to get them to participate in plastic reduction efforts. In marginalised communities that are not able to plan their finances, environmental sustainability efforts must account for economic realities. For small businesses, the financial viability of solutions is the main consideration, it was suggested.

Presenters said that they were hoping that the INC meeting would discuss feasible models for extended producer responsibility schemes so that the responsibility of eliminating plastic waste is shared by companies; the reduction of plastic production; the creation of inclusive models that can be implemented today and in the distant future; and regulations that would put pressure on producers while empowering the informal sector.

Keynote Speech 2: A two-fold crisis: Plastic pollution and inequality

Dr. Sara Seck

Associate Professor of Law, Yogis and Keddy Chair in Human Rights Law, Schulich School of Law Marine and Environmental Law Institute, Dalhousie Institute



Switching from a linear plastic economy to a circular one is essential given the slew of human rights curtailments that are committed at all points of a take-make-waste, fossil fuel-based system, the keynote speech on the second day of the forum highlighted.

She cited a report by the UN Special Rapporteur on Toxic Substances and Human Rights and underscored that tackling the plastic problem through better waste management practices must be avoided, since **the linear plastic system impinges on a range of human rights** at different stages of the plastic cycle.

At the production stage, the extraction and refining of plastics – 99 per cent of which are derived from fossil fuels – **impedes environmental justice** and **contributes to climate change**. The production of virgin plastics, including packaging, also causes workplace, local and transboundary air, water and soil pollution, while mixing chemical additives in the manufacture of material endangers the health and safety of workers. She also pointed out that the transport of plastic contributes to greenhouse gas emissions. Further, there is also the risk of spillage of plastic pellets and microplastics.

When the plastics are used, **health concerns** from exposure to toxic compounds arise. The exposure could come from packaging as well as through microplastics that get mixed into the food and water. Of particular concern for women are the endocrine disruptors that leach from plastics, which disproportionately impacts them.

The recycling stage poses health hazards to waste workers – whether engaged in recycling or waste management – who are exposed to highly-concentrated hazardous chemicals in the plastics when these are converted into new products through processes such as chemical recycling. At disposal, the materials – whether incinerated, dumped or ending up in bodies of water and contaminating ecosystems – release toxic pollutants.

The United Nations Human Rights Council's resolution recognising a clean, healthy, and **sustainable environment as a human right** bolsters the call for integrating a rights-based approach to plastics, Dr. Seck noted. She emphasised that this entails not only substantive rights – such as clean air and water, a safe climate, healthy ecosystems and non-toxic places to live – but also procedural rights – such as access to information, prior assessment, public participation, prior and informed consent for indigenous peoples, and access to justice, and others – because it is impossible to enjoy a vast range of human rights without a clean, healthy and sustainable environment. At the same time, she said, procedural human rights must also be exercised so that such an environment can be maintained.

She underscored that persons and groups in vulnerable conditions are the ones most exposed to the negative impacts of the plastic life cycle – and yet they are also the ones who often lack the tools and opportunities to protect themselves.

She noted that their vulnerability stems from historic issues of discrimination, including gender discrimination, colonial practices, the undermining of the right to self-determination, including of indigenous peoples. Children are also at high risk, she added.

Just as human rights are undermined at several stages of the plastic cycle, **a rights-based approach to transition into plastic circularity** can also be integrated in different aspects of the loop, she said.

Among others, the approach should inform product design, with businesses embedding both consideration of these rights and circularity into policies rather than choosing one over the other.

Businesses must then assess and identify any adverse impact arising from product design; redesign products to stop, prevent or limit these adverse impacts; track the results; and use the lessons learned to improve existing policies and management systems,

with an eye of redesigning them. A rights-based approach should also be applied at the waste management and disposal stage, embedding both human rights and circularity into policies, and assessing these to identify any adverse impacts. Consultations with rights holders, including informal waste workers and local communities, to stop, prevent, or limit any adverse impact, are crucial. Results should also be tracked, with learnings used to improve the policies.

She also stressed the right to remedies was also stressed, as while greater business involvement brings with it a greater responsibility to prevent and mitigate harms, access to effective remedies remains vital.

She noted that the 2011 UN Guiding Principles on Business and Human Rights is an important tool in applying a rights-based approach to addressing plastic waste, as this zeroes in on **access to remedies for harms caused by enterprise**.

Dr. Seck acknowledged that remedy for harms that arise from plastic pollution has been elusive. But the work of the Philippine Commission on Human Rights in its national inquiry on climate change serves as a reminder that the scientific understanding of the nature of the plastic problem continues to evolve. It was pronounced that along with this, businesses that fail to act and remedy harms caused will ultimately be held accountable.

Plenary Discussion: How is an inclusive and rights-based approach critical to sustainable market mechanisms for plastic circularity?

Moderator

Elin Gidloef

Associate Program Officer (Human rights and Environment), UN Environment Programme

Panelists:

Vivek Sistla

South-East Asia Research and Development Director for Beauty and Personal Care, Unilever

Russell Mahoney

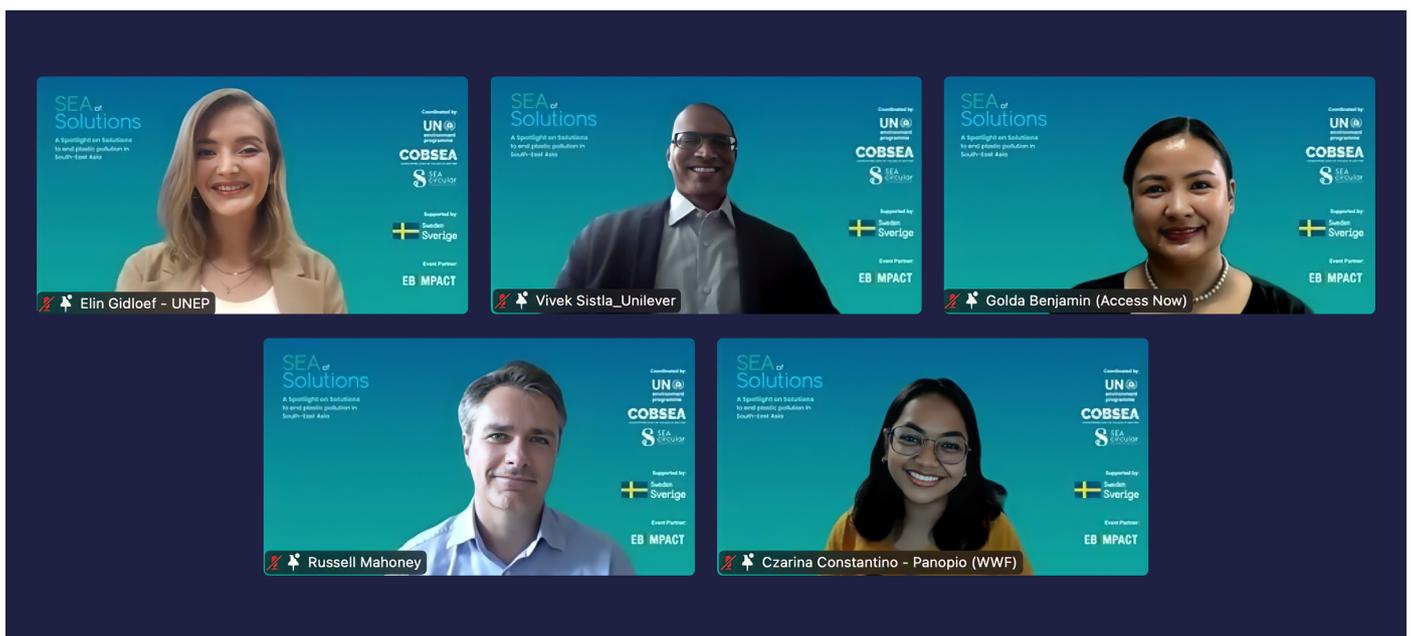
Vice President, Public Affairs, Communication and Sustainability, Coca-Cola

Golda Benjamin

Campaigner for Asia-Pacific, Access Now

Czarina Constantino-Panopio

National Lead for No Plastics in Nature Initiative, WWF Philippines



Market mechanisms for plastic circularity that take human rights and obligations into consideration foster participatory solutions and empower communities to have a stake in the success of these initiatives, the plenary discussion for the second day of SoS 2022 heard.

It was noted that when market mechanisms veer away from a “one-size-fits-all” model and are crafted with an understanding of community-specific conditions, communities are able to co-shape solutions that work for their realities, particularly when two conditions are met: first, that they understand the goal of the mechanism, and secondly, that any incentive that the mechanism may have for behaviour changes in the community is appropriate and clearly understood from a holistic viewpoint.

The importance of **involving communities and considering human rights in creating market mechanisms for plastic circularity** was highlighted by the observation that plastic waste impacts human rights at every stage of the plastic life cycle, but most significantly, at the beginning and the end.

On one end, **stopping the manufacture of unnecessary plastics and making fewer necessary plastics** mean less of the material

Case studies

Two multinational companies, Unilever and Coca-Cola, outlined commitments to reduce their plastic footprint in the coming years, and how they **work with different stakeholders** to implement their circularity strategies.

Unilever shared that apart from its target of reducing its virgin plastic footprint by half in the next three years through redesigning packaging and implementing refill-and-reuse systems, it also works with communities, small and medium enterprises and development organizations to pilot solutions on plastic collection. Aimed at finding best practices for gathering plastic waste, the programmes study the kind of sorting and collection system that fits communities; the correct system to ensure hygiene, health, safety, and human rights and account for gender and inclusivity; and the best way to extract value from US\$6 billion worth of plastic waste in South-East Asia.

It was noted that the **solutions are tailored to local environmental conditions** of targeted countries or geographies. For example, when a programme in a Thai village that incentivised residents for the collection of plastic proved ineffective, a village-wide scheme was implemented where proceeds from plastic collection went into paying for funeral services of families in need. This led to better engagement.

Unilever pointed out that decentralising mechanisms results in the deeper involvement of community and small businesses and leads to more effective outcomes than a top-down approach.

On its part, Coca-Cola aims to drive the market for **recycled plastic** and **promote a circular plastic economy** by collecting a bottle or can for every one that it puts in the market and

is released into the economy which, in turn, lowers the risks and impacts of plastic pollution on society and the environment.

On the other, giving waste workers, most of whom belong to the informal sector, proper protection and decent working conditions is critical in safeguarding their rights.

The panel noted that **waste workers must be recognised for their indispensable contribution** to plastic waste efforts and included in all stages of discussions on policies and mechanisms. The critical role they play is illustrated by a Philippine study that revealed that nine per cent of the country’s plastic waste is recycled mostly due to the work of informal waste workers.

It was discussed that civil society groups serve as the bridge between marginalised communities and businesses and policymakers. When initiatives stemming from inclusive market mechanisms fail, they are no longer just “accountability partners” that demand culpability from companies – as is their role in company-driven and other top-down approaches – but become “trust connectors” that bring the parties together to explore new solutions, it was added.

incorporating recycled plastic into half of its bottles in 200 markets by 2030. It also plans to make its own containers completely recyclable by 2025, remove sachets, make 25 per cent of its packaging reusable by 2030 and expand its refillables business to include more markets.

It was noted that Coca-Cola works with its partners to ensure that the rights of informal waste collectors are not violated and that they are compensated properly when they are tapped by the company. It also has a supply guiding principle that requires its suppliers to adhere to human rights policies.

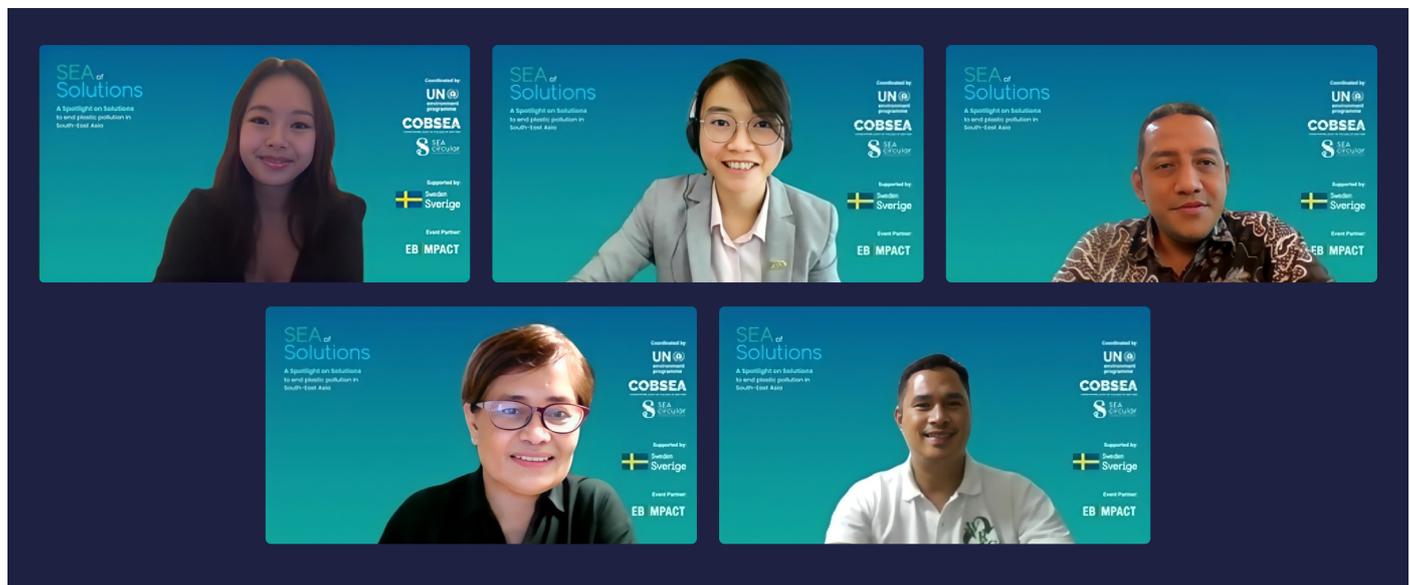
Both companies said plastic credits were not a solution that they were considering, with Coca-Cola preferring to keep to its strategy of collecting, recycling and reusing plastic in the markets it operates in. Unilever considers the possibility of it being a part of an extended producer responsibility scheme, but not the centre of its strategy, which is to reduce plastic footprint by looking at places where it could be eliminated, reduced by design or made better by making it recyclable (Less Plastic, Better Plastic, No Plastic).

Coca-Cola and Unilever are part of an alliance that supports informal waste workers who fall below social safety nets but collect 60 per cent of the world’s plastic waste.

The **influence of brand owners and their supply chain** in crafting rights-based market mechanisms was underlined by the results of a poll conducted on participants of the plenary discussion, where they were seen as the second most important stakeholders, after policymakers.

Spotlight on Solutions (Collaboration)

<p>Addressing plastic pollution at community level through waste segregation at source</p>	<p>Josephine Tan General Manager, Penang Green Council</p>
<p>Collect, save, earn and advance circularity: A collaborative model for circularity</p>	<p>Andi Setiano Rosandi Assistant Vice President, Consumer Product Division, Bank Negara Indonesia</p>
<p>City-academe collaboration for eco-innovation and plastic free cities</p>	<p>Dr. Mary O' Penetrante Professor, Central Philippine University</p>
<p>Upcycling plastic waste to necessities with Envirotech</p>	<p>Winchester Lemen President and CEO, Envirotech Waste Recycling Inc.</p>



The final Spotlight on Solutions focused on showing how collaboration results in meaningful partnerships in plastic waste reduction efforts. Four organizations at the fulcrum of plastic waste initiatives that require the multi-sector cooperation demonstrated how **working together advanced plastic circularity**, brought programmes up to scale and led to consumer conversion.

Penang Green Council – This government-linked social enterprise that facilitates and coordinates environmental projects in the Malaysian state of Penang is implementing “Waste Segregation at Source: Solving Plastic Pollution in Penang”, an initiative that aims to reduce single-use plastic, promote waste segregation at source, increase the recovery of plastic, and encourage circular models and solutions for plastic pollution. Initially implemented in two locations, the project is a collaborative effort between the government, institutions, experts, the private sector, local communities and non-government organizations. Community leaders help the council identify the plastic waste problems and challenges at the sites, including the kinds of plastic that are being discarded and how much plastic trash is generated by households. The council also works with local universities for the creation of circular plastic kiosks that house shredders, extruders and moulders for recycling the material. The kiosks are placed at the sites so that residents can use them to give discarded plastic a new life. To effect long term behavioural change in residents as well as find ways to embed circular solutions to the plastic problems in the sites, the council carries out consultations with government, institutions, experts, the private sector, the local communities and non-government organizations. The initiative has been replicated in five other sites in Penang.



Bank Negara Indonesia (BNI) – “Let’s Save With Waste” is a multi-awarded programme that promotes cashless transactions and instils plastic waste reduction practices and financial literacy in students. Under the programme, a special savings account is created for students who collect plastic waste for depositing in waste banks, which are facilities that buy plastic waste from communities. As the transfer agent, BNI receives the payment of waste banks for the plastic waste surrendered to them, then transfers the money to the savings accounts of the waste collectors. The payment is reflected on students’ accounts in real time. The system teaches students the value of saving, and inculcates in them environmentally friendly habits and ecological awareness. Schools have also been tapped to act as agent banks, providing basic banking services such as deposits and withdrawals, as well as facilitating digital transactions through electronic data capture machines. To date, 200 schools, 150 waste banks, and 150,000 students have signed up for the programme, which has accounted for savings amounting to more than IDR1 billion and the collection of 300,000kg of plastic waste annually.



Central Philippine University – To address the plastic waste pollution crisis in Iloilo City in the Philippines, the Central Philippine University worked with the city government, the Department of Trade and Industry, the Department of Environment and Natural Resources, community leaders, the private sector and other stakeholders for a solid waste management programme to reduce plastic waste through sustainable consumption, production and waste management of the material and its alternatives. The project pilot tested five eco-solution models in 13 communities in the city where it sought to establish solid waste management baseline data. From this, eco-solution models were designed with inputs from local resource persons and community leaders. The alternative products, which were made from local raw materials, were then tested. A comprehensive analysis of the city’s recycling chain was undertaken, from which information and communication materials, audio-video presentations and jingles were developed and used for information awareness campaigns in the city. The project and the results of the pilot were presented to the solid waste management board for city-wide implementation. The pilot programme reduced plastic waste in the city by 10.6 metric tonnes a month, and led to the revision of local ordinances to reflect penalties for plastic pollution, among others.



Envirotech – This recycling company in the Philippines collaborates with schools, companies, establishments and communities for the collection of unwanted plastic waste that is converted into various products. It works with Coca-Cola for a nationwide project that uses PET bottles to make school armchairs that help to ease the backlog in the lack of seats on campuses, which is said to have reached over 4.8 million. It also worked with an energy company to make furniture from plastic for their gasoline stations. Discarded foil packs have been turned into library tables and chairs, and single-use plastics were converted into houses. The company, which creates products according to the requirements and specifications of its clients, has also worked with cities to build bicycle lanes, and converted plastic waste into fencing and trash bins. It is also set to construct walls and other formworks from plastic waste.



Audience Engagement

After their presentations, the speakers highlighted the importance of working with multiple stakeholders for broad-based projects that tackle plastic pollution, and that while programme implementers can do little alone, with partners they can achieve more. It was noted that the magnitude of the plastic problem requires the pooling of resources and expertise. It was also pointed out that collaboration allows more action with limited resources and time, generates more ideas and results in holistic decision making.

It was acknowledged that stakeholder engagement can be a challenge, but that multi-sector partnerships can be strengthened when people are placed at the centre of initiatives. Incentives likewise play a key role, as there is a cost to capturing plastic

and sorting the material and this cannot be simply mandated. Meanwhile, the importance of data was raised. Information is vital not only in setting baseline scenarios but also in tracking trends and changes over time.

The lack of solid waste management facilities was also cited as a major challenge, not in the least because the public's propensity for convenience sometimes outweighs its concern for the environment.

It was agreed upon that plastic "is not the enemy" as it is created to meet different requirements and fill gaps in consumption. However, the public needs to be educated on its proper disposal so that it does not create problems.



Closing Session, Day 2

SoS 2022 Summary:

Kamala Ernest

SEA circular Project Coordinator, Regional Office for Asia and the Pacific, UN Environment Programme

Key Messages:

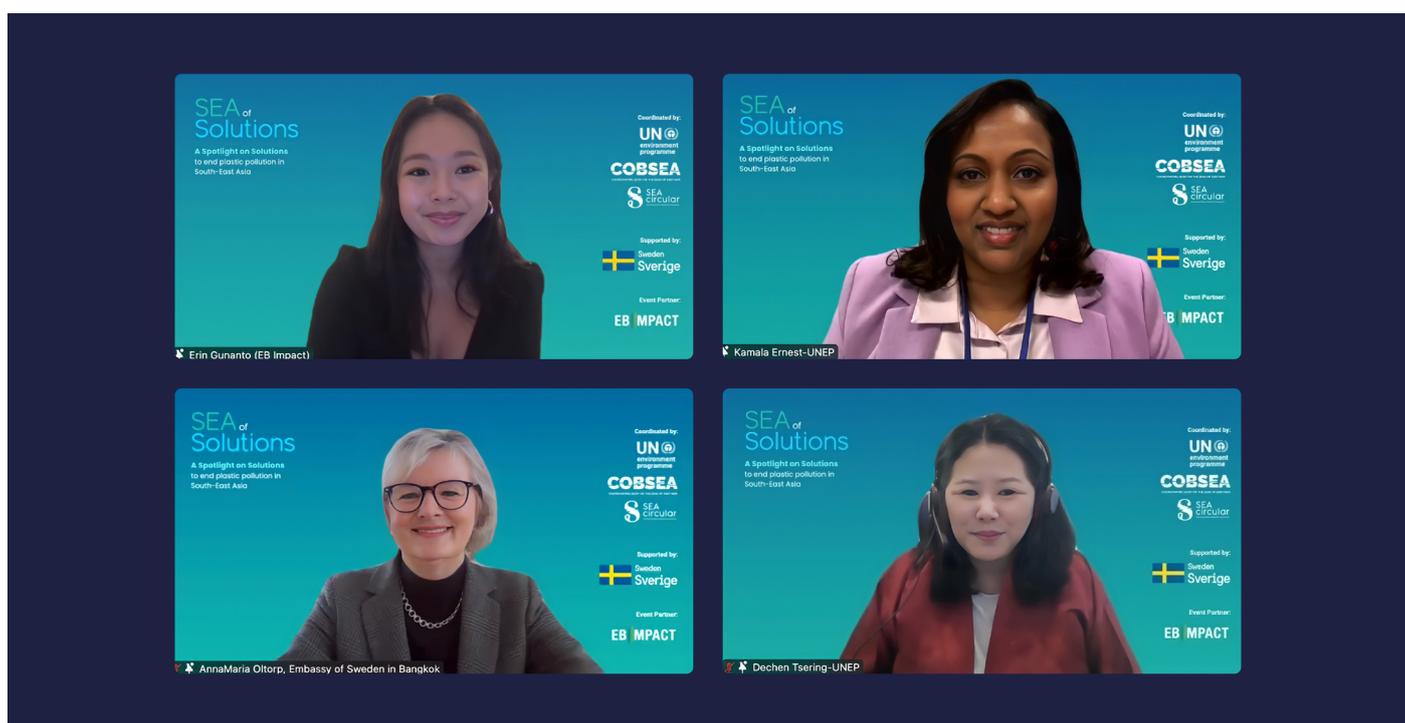
AnnaMaria Oltorp

Head of the Development Cooperation Section, Embassy of Sweden in Bangkok

Closing Remarks:

Dechen Tsering

Regional Director and Representative for Asia and the Pacific, UN Environment Programme



At the conclusion of the forum, five action points collectively called “Voices of South-East Asia to end plastic pollution” were presented to summarise the proceedings over the two days.

These are:

- **Collaboration** to beat plastic pollution at the source, because building a global agreement that enables a circular plastic economy entails getting all stakeholders to work together.
- **Regional action and leadership**, given that South-East Asia produces a significant amount of plastic waste and is impacted severely by the plastic crisis, but is also a source of innovative and market-based solutions for circularity that are scalable.
- **Engagement along the value chain**, with businesses supporting small and medium enterprises at all points, including financing, to give them the space to create new business models for circularity where none had existed.
- Prioritisation of **inclusion** and **empowerment** through plastic circularity, to ensure that human rights, gender equality, and equity are nurtured across all stages of a circular plastic economy and that the informal sector is guaranteed safe and healthy working conditions.

- **Innovation** in rethinking circular solutions, given its centrality in harnessing the economic value of plastics and reducing the use of virgin plastics.

A key message delivered after the presentation brought attention to the urgency of addressing plastic pollution in a way that takes the welfare of vulnerable groups into account.

It was reiterated that the plastic crisis impacts on the human rights of informal waste workers, indigenous peoples, coastal communities, people living in poverty, children and women. It was also stressed that future generations will be put at risk by the same plastic problem if it is not reversed now.

The UN General Assembly’s declaration of **every person’s right to a healthy environment** was cited as a clear mandate for swift action to be taken to address marine litter and plastic pollution, as there is no time to waste.

Solutions must go beyond recycling materials, it was noted, as **plastic circularity cuts across all the stages of the plastic lifecycle**, from the earliest stage, when the production of unnecessary and problematic plastic must be stopped, through designing products for reuse, to facilitating the re-entry of plastic waste into production.

The practical innovations that were presented by 12 small and medium enterprises to tackle plastic waste at all stages of the value chain – including plastic avoidance, expanding the lifecycle of the material, reducing plastic usage, and better recycling to allow new applications – should now be taken forward, it was noted.

The importance of collaboration in resolving the plastic crisis was also emphasised. It was noted that the panel discussions sent a clear message that effectively addressing the impact of plastic waste relies on the **actions of all stakeholders** – governments, the private sectors, small and medium enterprises, development agencies, the informal sector, civil society, and others. Everyone must work together.

The closing remarks headlined the importance of **treating plastic as a resource that should not be wasted** and should be kept out of the environment. It was noted that a shift towards a plastics economy would generate new jobs, new materials and new products.

The solutions presented by “changemakers” during the event helped to show the path, it was said, as they proved that positive action is possible at every part of the plastic lifecycle and demonstrated that plastic pollution can be avoided with

novel solutions, such as alternative packaging materials for food, water, and other items that are used in daily life.

They also showed that incentives were important in persuading individuals and communities to be part of solutions that foster circularity, and emphasised that no one can be left behind in the transition to a circular economy, it was added.

Speakers gave assurance that the **voices from the region would be heard** and that South-East Asia would take part in charting inclusive, collaborative and innovative actions to address the full lifecycle of plastics as the outcomes of the forum were going to be shared at the multi-stakeholder forum that was set to take place after the conference as well as at the INC meeting for ending plastic waste in Uruguay.

The **private sector is expected to continue to be instrumental** in devising innovative solutions that help close the loop on plastic pollution. It was noted that the exchange of information over the course of the two-day forum enriched everyone’s knowledge of issues surrounding efforts to address the plastic crisis and showed that solutions already exist. Participants of the forum were called to use the ideas and knowledge gained from the event to advance efforts towards ending the plastic waste crisis.





“A global agreement on plastics is the most effective and comprehensive global response to combat marine plastic litter and microplastics. It is imperative that we all work towards this aim.”

– Jon Astrom Grondahl, Swedish Ambassador to Thailand



“Plastic pollution is affecting every one of us and violating a number of human rights. For this reason, ensuring a healthy planet is everyone’s responsibility. We all need to act together.”

– AnnaMaria Oltorp, Head of the Development Cooperation Section, Embassy of Sweden in Bangkok



“Innovation will play a key role in bringing solutions to the market. Many times, I fear that people are seeing recycling as the solution for a circular economy. We will not be able to recycle our way out of this. We must find innovative solutions both upstream and downstream.”

– Kristin Hughes, Director, Global Plastic Action Partnership and Member of the Executive Committee, World Economic Forum Geneva



“Only if we mobilise stakeholders can we make a dent in the plastic pollution that we face collectively at the national, regional and global level.”

– Mahesh Pradhan, Coordinator of the Coordinating Body of the Seas of East Asia



“We’re all aware that we are facing a clear and present plastic pollution crisis in the Asia Pacific region. [...] While the scale of the problem may seem daunting, the good news is that innovative, collaborative, and inclusive solutions addressing plastic pollution in the region already exist. Many of these solutions are being envisioned and brought to life by small and medium-sized enterprises.”

– Dechen Tsering, Director, Regional Office for Asia and the Pacific, UNEP



“It is increasingly clear that the adoption of a human rights-based approach is essential for the transition away from the fossil fuel-based linear plastic cycle and towards plastic circularity. The good news is that there are an increasing number of tools that clarify what it means in practice to adopt a human rights-based approach to environmental problems such as plastic pollution, while other tools clarify the responsibilities of businesses as well as states when implementing the human rights based approach.”

– Dr. Sara Seck, Associate Professor of Law, Yogis and Keddy Chair in Human Rights Law, Schulich School of Law Marine and Environmental Law Institute, Dalhousie University

SEA of Solutions 2022 Outcomes Summary – Voices from South-East Asia to end plastic pollution

About SEA of Solutions

SEA of Solutions is the annual high-level partnership forum for voices of stakeholders in South-East Asia working towards ending plastic pollution. It is convened by [SEA circular](#), an initiative by the UN Environment Programme (UNEP) and the Coordinating Body on the Seas of East Asia (COBSEA) supported by the Government of Sweden. SEA of Solutions has served as a platform for inspiration, sharing of information and best practices, meaningful dialogue to facilitate collaboration, as well as partnership opportunities in promoting circularity throughout the plastic value chain.

At SEA of Solutions 2022, impactful solutions that promote the transition from a linear to a circular plastics economy were spotlighted – from designing, producing, and consuming products to post-consumer waste management. At the event, [12 inspiring solutions](#) from South-East Asia had the opportunity to showcase how they contribute to a circular plastics economy in collaborative, inclusive and innovative ways. 2022 marks a historic year for global action to beat plastic pollution. At the fifth

session of the United Nations Environment Assembly in March 2022, 175 UN member States agreed to negotiate an international legally binding instrument by 2024 on ending plastic pollution.

With over a thousand registrations, mainly from Asia and the Pacific, SEA of Solutions brought together regional stakeholders on 23–24 November 2022, just days ahead of the first meeting of the Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument on plastic pollution.

Multiple sectors were represented with 34 per cent of participants coming from the private sector, 25 per cent from civil society, 14 per cent from international organizations and 12 per cent from government agencies. Nearly 60 per cent of those registered identified as female. Speakers and participants shared scalable actions around the themes of inclusivity, innovation, and collaboration with a special focus on responsible business conduct, respect for human rights and gender equality.



The graphic features a dark blue background with a satellite-style image of the ocean. On the left side, there is a vertical text block with the following content:

- SEA of Solutions**
- A Spotlight on Solutions** to end plastic pollution in South-East Asia
- Voices from South-East Asia to end plastic pollution**
- 5 Action Points**

On the right side, there are five action points, each with an icon and a brief description:

- Collaboration** (Icon: Two hands shaking) – Beating plastic pollution at its source
- Regional Action and Leadership** (Icon: Location pin) – A regional approach for South-East Asia at the centre of the challenges and solutions
- Engagement Along the Value Chain** (Icon: Buildings) – Businesses supporting SMEs along the value chain
- Inclusion** (Icon: Three people icons) – Empowerment through plastic circularity
- Innovation** (Icon: Lightbulb) – Rethinking viable circular solutions

Five key action points from the SEA of Solutions 2022

1

We need to work together to beat plastic pollution at its source.

Working with all stakeholders is indispensable to building a global deal that enables a circular plastic economy. Only through collective action can we supercharge ambition, scale existing solutions and design new ones to beat plastic pollution. Countries in Asia and the Pacific region have developed regional frameworks that emphasise the need for collaborative action and coordination. Many countries have also developed national action plans and road maps to address plastic pollution and marine litter challenges. Actions are required from governments, the finance sector, and other stakeholder groups to successfully scale innovations for a circular plastics economy. Solutions represented during the event provided examples of positive results in building circularity within the plastics value chain through collaboration among businesses, academia, local governments and communities, and other stakeholders.

2

We can learn from Asia and the Pacific in addressing the plastic pollution crisis and finding solutions.

The region produces and consumes a significant share of global plastics. Significant quantities of plastic waste from other parts of the globe are also imported and managed in the region. Plastic leakage into the marine environment is a major issue that impacts ecosystems and communities. At the same time, solutions for a circular plastics economy exist and are scalable. In South-East Asia, new policy developments, market-based solutions on extended producer responsibility and producer responsibility organizations are taking shape. There is a lot to learn, share and replicate. SEA of Solutions showcased concrete actions that are building a circular plastics value chain through collaboration across sectors, inclusive approaches and technological innovations.

3

We can create enabling environments for small and medium-sized enterprises.

Circularity across the plastics value chain creates space for new business models at all stages of the value chain. These range from eliminating hazardous and unnecessary plastics to designing plastic products to be circular, from circulating plastic products and materials to managing non-recyclable plastics sustainably. Small and medium-sized enterprises (SMEs) often work close to local communities. They are agile in designing and adopting circular business models to create business opportunities where they didn't exist. Spotlighted solutions highlighted that, for circular business models to scale, an enabling policy environment is needed. Access to sufficient finance is also important, as start-up costs are often daunting for SMEs, and they require dedicated time before there is a return on investment.

4

We can make solutions to beat plastic pollution inclusive.

The plastic pollution crisis not only damages the environment, it also impacts human rights. In South-East Asia, marginalised and coastal communities are particularly vulnerable to the effects of plastic pollution. Their inclusion and empowerment through plastics circularity must be a priority. It is important to ensure that human rights and gender equality are fully considered at all stages of designing a circular plastics economy. A people-centric approach, which incentivises communities impacted by plastic pollution, will strengthen participation and collaboration that support ending plastic pollution. It is important to ensure that jobs created within circular plastics solutions, especially those in the informal sector, are safe and are performed under healthy working conditions. Solutions supporting behavioural change in consumption of plastics should be inclusive and accessible.

5

We can develop viable circular plastic solutions by leveraging innovation.

Circular innovation is central to creating economic value while reducing the use of virgin plastics. Through innovation, it is possible to rethink and redesign the full life cycle of plastics. A range of innovative solutions exist that work to close the loop of plastics value chain with locally applicable and scalable collection, recycling, and remanufacturing methods. In addition to downstream solutions, it is important to leverage innovation upstream in the plastic value chain to develop and scale solutions that focus on circular design, plastic avoidance and plastic substitution. Ensuring financing for new technologies and innovations that reduce plastic consumption and plastic dependence is essential.

A composite image with a dark blue tint. The top portion shows a fisherman on the deck of a boat, leaning over the side. The bottom portion shows a large, dense school of fish swimming in the water. The text is overlaid on the upper part of the image.

**NOW IS THE TIME FOR
DECISIVE ACTION TO END
PLASTIC POLLUTION!**

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