



THE EAST ASIAN SEAS CONGRESS



Charting a New Decade of Healthy Ocean, People and Economies

1-2 DECEMBER 2021 • Hosted by the Royal Government of Cambodia

Collab 17

Online Dialogue: Circular Economy Solutions to Reduce Plastic Waste and Marine Litter

16 November 2021, 2:00 PM - 4:00 PM (GMT+7)

Online via Microsoft Teams

The "Rethinking Plastics – Circular Economy Solutions to Marine Litter" project is funded by the European Union and the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Expertise France.

East Asian Seas (EAS) Congress 2021
“Charting a New Decade of H.O.P.E. (Healthy Ocean, People, and Economies)”

COLLAB 17

Online Dialogue: Circular Economy Solutions to Reduce Plastic Waste and Marine Litter

16 November 2021, 2:00 PM – 4:00 PM (GMT+7)
Online via Microsoft Teams

PROCEEDINGS

Table of Contents

Executive Summary	3
Opening Remarks	4
Panel Discussion on Challenges and Policy Measures for Circular Economy in the context of Marine Litter	5
Breakout Room 1: Sustainable Consumption and Production of Plastics	9
Breakout Room 2: Improvement and New Approaches for Plastic Waste Management	13
Wrap-up and Synthesis	18
Closing Remarks	19
Annex 1 - Programme	21
Annex 2 - Links to presentation materials and video recording	23

1.0 Executive Summary

The online dialogue on “Reducing pollution and solid waste” was organized by the project “Rethinking Plastics – Circular Economy Solutions to Marine Litter” and the Biodiversity Management Bureau (BMB) of the Department of Environment and Natural Resources (DENR) of the Philippines. The event, one of the collaboration sessions under the East Asian Seas Congress 2021, was held last 16 November 2021, at 2:00PM to 4:00PM (GMT+7). It aimed to be a platform for sharing a variety of strategies, tools, and lessons learned on circular economy for plastics to prevent and reduce marine litter with the following objectives:

1. To facilitate the knowledge and experience exchange in reducing plastic waste and marine litter among participating countries
2. To identify effective approaches and enabling mechanisms in mainstreaming circular economy and sustainable consumption and production of plastics

The following are the expected outcomes:

1. Various initiatives, experiences, and best practices on plastic waste and marine litter reduction, prevention, and management within and outside the region are shared and documented.
2. Opportunities for replication/scaling-up of experiences and best practices, including potential collaborations on plastic wastes and marine litter reduction, prevention, and management identified.
3. Approaches and enabling mechanisms for mainstreaming marine litter prevention and circular economy into national and local development plans identified.

Rethinking Plastics supports the transition towards a circular economy for plastics and sustainable plastic consumption and production to significantly reduce marine litter in seven East and Southeast Asian countries to contribute to a significant reduction of marine litter. The project implements advisory services and pilot projects in close cooperation with regional, national, and local partners and is funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Expertise France.

With this, experts from the (EU), Center for Southeast Asian Studies (CSEAS), Environmental Management Bureau (EMB) and Ecosystem Research and Development Bureau (ERDB) of the DENR, Philippine Reef and Rainforest Conservation Foundation, Incorporated (PRRCFI), Indonesia Plastic Bag Diet Movement (GIDKP), Philippine Center for Environmental Protection and Sustainable Development (PCEPSDI), Chulalongkorn University, and Philippine Alliance for Recycling and Materials Sustainability (PARMS) shared their knowledge and experiences in reducing plastic waste and marine litter and on the effective approaches and enabling mechanisms in mainstreaming circular economy (CE) and sustainable consumption and production (SCP) of plastics.

In the presentation of the EU Delegation Representative, the European Strategy for Plastics in a Circular Economy was highlighted with focus on the prevention of plastic wastes, expansion of recycling capacity, increase the market demand for recycled plastics, enhancement of international cooperation on CE, and prevention of marine litter. It was highlighted that the strategy also aims to reduce the impact of certain plastic products on the environment by banning certain plastics, single-use plastic (SUP) items in the EU member states by 2021.

In the panel discussions on the challenges and policy measures for circular economy in the context of marine litter, experts from the Rethinking Plastics Project, CSEAS, EMB and the ERDB of DENR addressed the following points:

- The thrust or objectives of the Rethinking Plastics Project and its link to the EU strategies such as the Plastics Strategy and its practical results for replication and upscaling for East and Southeast Asia.
- Outlook for Association of Southeast Asian Nations (ASEAN) and does it reflect similar challenges and opportunities as that of the EU.
- Indonesia best practices alignment with the regional initiatives that could be applied to other countries.
- Studies on the impacts of marine litter on marine life in the Philippines, the status and impacts of marine litter and plastics in the country, and how the studies incorporated into the Philippine National Plan of Action.

The panel discussion was followed by two breakout groups discussing the Sustainable Consumption and Production of Plastics and Improvement and new approaches for Plastic Waste Management.

Group 1: Sustainable Consumption and Production of Plastics

- Wala Usik: Innovative Circular Economy for Micro, Small and Medium Enterprises
- Voluntary Sustainable Packaging Criteria
- Reducing Plastic Bags in Traditional Markets in the City of Bandung and Banjarmasin

Group 2: Improvement and new approaches for Plastic Waste Management

- Plastic Waste Recycling
- Overview of Extended Producer Responsibilities and the Different Country Approaches
- Zero Waste to Nature: Ambisyon 2030 Packaging Strategy and Roadmap

In the closing, Datu Tungko M. Saikol, Director of DENR-BMB, reiterated that the distinctions and different levels of commitment, the strategies from the EU together with the initiatives at the ASEAN level and the policy framework of countries in Southeast Asia show the progress of the international community in finding a common ground to identify solutions to the growing issues.

The online dialogue was participated by public representatives (national government agencies and local government units), business representatives (industry associations and the private sector), and representatives from the civil society and the academe.

The discussions follow the format of a plenary presentation and two breakout sessions covering the topics of Sustainable Consumptions and Production of Plastics, and Improvement and New Approaches for Plastic Waste Management.

2.0 Opening Remarks

Speaker: Mr. Matej Dornik, EU Delegation Representative

The COVID-19 pandemic has brought on challenges threatening the public health, economy, and the environment, including the waste management sector and the generation of plastic wastes. The increased use of personal protective equipment (PPE) of surgeons and the use of SUP bags, extensive use of food delivery services and e-Commerce has repercussions: disposal

systems are overwhelmed, and large volumes of plastics are getting at sea. Keeping track with policies and programs towards the reduction of plastic wastes and increasing recycling will remain a major challenge, especially in the post-pandemic world that is moving towards a more circular economy. An economy in which resources are used and managed more efficiently and sustainably. In the European Union (EU), the European Commission (EC) in 2018 presented the European Strategy for Plastics in a Circular Economy. It seeks to:

- Prevent plastic wastes
- Expand recycling capacity
- Increase the market demand for recycled plastics
- Enhance international cooperation on Circular Economy
- Prevent marine litter

The strategy also aims to reduce the impact of certain plastic products on the environment by banning certain plastics, SUP items in the EU member states by 2021. In March 2020, the EC has adopted a new Circular Economy Action Plan as one of the main blocks of the European Green Deal, which aims to ensure that resources are kept in the economy as long as possible.

The plastic industry is one of the sectors with high resource usage but also with high potential for circularity. There are significant efforts to address it, including in the Philippines with the recently adopted National Plan of Action on Marine Litter and the Philippine Action Plan for Sustainable Consumption and Production (SCP) as well, including the ongoing logistical discussions on reducing plastic wastes and banning SUP products with a focus on reusing and recycling.

The efforts will be shared with concrete examples on the ground. Discussions on the global challenges and marine litter that needs joint actions and cooperation leading to tangible solutions. By sharing approaches, policies, and best practices, and by promoting joint activities, the aim is to deepen knowledge and exchange information to further strengthen cooperation and relationship.

He expressed his appreciation to the DENR for the cooperation and established links.

3.0 Panel Discussion on Challenges and Policy Measures for Circular Economy in the context of Marine Litter

Moderator: Victor Tumilba

Mr. Alvaro Zurita

Team Leader of the Rethinking Plastics Project

1. *What is the thrust or objectives of the Rethinking Plastics Project and how is this linked to EU strategies such as the Plastics Strategy?*

The Rethinking Plastics Project is an EU-funded project in various countries like the Philippines, Thailand, China, and Indonesia, Vietnam, Singapore, and Japan. The project covers six areas with a multi-country project for waste management with a focus on Extended Producer Responsibility (EPR) on plastics, SCP, and specific policies on SUPs from sea-based sources. Policy briefs and policy dialogues are part of the component of the project. In parallel is the implementation of piloting for a hands-on approach.

The EU Policy Framework for Plastics has a directive for SUPs. There is also an EU Green Deal, which is a set of policy initiatives that will lead the EU to 2050 carbon neutrality, including a Circular Economy Action Plan to implement CE and reduce

carbon emissions. The CE Action Plan includes different sectors from manufacturing and others. Hence, the Rethinking Plastic Project supports the CE Action Plan.

The phasing out of SUP is included in the policy discussion and policy guidelines, including piloting and capacity building in seven partner countries that are linked to the policy recommendation. The EU Plastic Strategy is the EU's implementation of projects in Asia and Southeast Asia in the context of international cooperation, especially since the global challenge is not something that the EU can solve alone.

There are policy discussions on SUPs like market restrictions or bans like banning of plastic bags in Vietnam. Hence, the project contributes to the policy recommendations, briefs, and pilot projects. In China, for example, there are projects on EPR plastic bottles, EPR toolkits that are adopted per country, handbooks in Indonesia and Vietnam, policy briefs in Thailand, workshops, training, and capacity building.

2. *Are there practical results for replication and upscaling for East and Southeast Asia?*

The piloting of projects is different for each country and there were 20 pilot projects in different result areas as implemented by universities, nongovernmental organizations (NGOs), and non-profits. The idea is to have one or one and a half years of having the piloting and have the experiences to learn from for the next steps for replication and scaling. Hence, look for what went wrong with the approach and learn from it. Once the lessons learned are identified, it can feed into the policy guidance.

The following are some examples:

- Use of plastic films in mushroom agriculture in China with a recommendation of making the plastic thicker for easier recycling than using thin plastics. Deposit returns for plastic drinking bottles were also implemented in China, including the implementation of ship waste management concepts in Shanghai port. If the impact is successful, there is a potential for replication and upscaling.
- There is a project in Indonesia on the use of SUPs in the markets and floating markets.
- Wala Usik Project on the drafting of policy guidelines, and the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) with pilot project in Batangas port was implemented in the Philippines.
- In Thailand, different workstreams are working in food delivery for restaurants, community, and other social efforts.
- In Vietnam, the project works with supermarket chains in phasing out plastic bags and promoting reuse.

Dr. Arisman

Executive Director of the Center for Southeast Asian Studies (CSEAS), Indonesia

1. *What is the outlook for ASEAN and does it reflect similar challenges and opportunities as that of the EU?*

The ASEAN has two important events for 2021. First, the ASEAN Regional Action Plan for Combating Marine Debris on 28th of May 2021 is a regional action plan with a component in private sector engagement and how to establish a regional platform for EPR. Second, ASEAN adopted a framework for ASEAN Circular Economy last 18th of October.

The current discussion is on the contribution and the role of the private sector in marine pollution. Like in Indonesia, there is a study with the United Nations Development Program (UNDP) for the socio-economic and environmental possibility for implementing CE. Indonesia is also drafting a Circular Economy Roadmap for the next five years with five sectors. The sectors are plastic packaging, e-waste, electronics, construction, and others.

There are lots of EPR initiatives in the region, including in the ASEAN. For example, Indonesia has a 10-year roadmap that is currently voluntary. EPR at the ASEAN level also faces some challenges. First, on the collection system with a pilot project in one of the districts. A model of waste segregation and waste collection system, and improving the behavior of the household, which is important since it reduces the recycling value. The second is on linking the waste collection and waste value chains.

2. *In Indonesia, how is it aligned with the regional initiatives that could apply to other countries?*

In the ASEAN, there is a high commitment to reducing marine plastic debris or marine debris. There are lots of initiatives in the region. However, the solution should look at the local level on how to localize the solutions, especially that marine litter is coming from the river and coming from the households or is land-based. With this, there is a need to solve the issue of the collection first in the urban area and also to improve the recycling industry. Indonesia also made a model on the waste segregation system, improvement of knowledge, and changing of behavior through education on waste segregation.

Ms. Maria Delia Cristina Valdez

Chief of Solid Waste Management Division of the Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR)

and

Dr. Maria Lourdes Moreno

Chief of Coastal Zone and Freshwater Research Division of the Ecosystem Research and Development Bureau (ERDB), DENR

1. *To Dr. Moreno, are there studies on the impacts of marine litter on marine life in the Philippines?*

There has been a study that was conducted by the ERDB of the DENR. The recent study called Microplastic Contamination Determination on Selected Major Water Bodies of the Philippines has the following findings:

- All study sites are contaminated with microplastics, which means that lots of protected areas, fishing grounds, and tourist destinations are already contaminated by microplastics.

- The spatial dispersion or the distribution of microplastics was comparable along the shore from 1.5 kilometers to 3 kilometers away from the shoreline. Microplastics are found in the water column from depth of 2 meters up to 5, 15, and 30 meters, which is an indication that microplastics are already in the Philippine waters. The study, however, is limited to the identification and distribution of plastics.

2. *Follow-up question. What are the current statuses and impacts of marine litter and plastics in the country and any projections for the future?*

On the impact of microplastics on marine biodiversity, only a few studies have been conducted. The studies are also limited to the identification of microplastics in the digestive system or the guts of different marine animals. In a study by Abreo (2015), he confirmed the presence of Microplastics in green turtles in Davao Gulf in Mindanao. There is also evidence of plastic contamination in beak whales.

Other studies include Bucol et al. (2019) for the study in Bais Bay wherein high levels of microplastics were found in the rabbitfish's digestive system. The rabbitfish is a common type of fish used as food in the Philippines. The study of Palermo et al. in 2020 determined that there are microplastics in sardines.

60% of people in the Philippines are living in the coastal area and the Filipinos are relying on the fishery for food. But there is still no study that links the impact of microplastics to human beings.

3. *To Chief Valdez, how are studies like these incorporated into the Philippine National Plan of Action, and are the key features of the plan?*

The studies highlighted that microplastics are already in Philippine waters. During the development of the National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML), a systems mapping was done that allowed the participants to trace the sources and root cause of the problem. For example, microplastics come from disintegrated plastics that are not recycled, collected, and disposed of properly. With this, two strategies were identified in the NPOA-ML.

Enhancing the plastic recycling industry. There are only a few plastic recycling in the country and they are not strategically located to cater to other areas in the Philippines.

Preventing leakage from collected and disposed of wastes, which means proper waste management, proper waste segregation from the source, properly segregated collection, and disposal of solid waste in an engineered waste facility. With this, CE and SCP initiatives are mainstreamed in both public and private sector initiatives. There is also a need to address marine litter that is already existing in the environment and marine environment, which would include continuous river and coastal clean-ups, setting up trash traps, and others.

The cross-cutting strategies will stitch the other strategies together - on what local stakeholders do to localize the NPOA-ML. There is a need for the local stakeholders' participation and the people themselves, especially in the implementation of the NPOA-ML. The NPOA-ML will be launched on 26th of November in Tacloban City, Philippines. Tacloban was identified as the venue as it coincided with the onslaught of Typhoon Haiyan in the country.

4.0 Breakout Room 1: Sustainable Consumption and Production of Plastics

Moderator: Lena Kampe, Rethinking Plastics Key Expert

4.1 *Wala Usik: Innovative Circular Economy for Micro, Small and Medium Enterprises*

Mr. Dave Albao

Executive Director of Philippine Reef and Rainforest Conservation Foundation, Incorporated (PRRCFI)

The following are the highlights of the discussion:

- The communication on conversation and circular economy should be in a way that communities would accept and understand. Hence, it led to the project of Wala Usik, which is a phrase that means “nothing is wasted.” The project sites in Bacolod and Talisay, Philippines aimed to reduce ocean waste.
- Mainstreaming circular economy needs contextualization in the local culture and heritage. Its discussion should not be intimidating to the communities, which is what the project is trying to achieve. The definition and discussion of the circular economy could be in the way of low-tech tapping in the local heritage and indigenous traditions for keeping used materials. It also tapped into design thinking and experiential learning, which is worth it when the project tried to localize the circular economy in Negros.
- Behavior and system changes from the bottom up for both consumers and producers are part of the discussion as well. How Wala Usik works for the behavior and system change includes four supports:
 1. Building on the experience of prototyping microbusinesses on its transition and redesigning, which is enabled by providing technical support, access to equipment and capital, and deployment to innovations such as refilling, shared reuse systems, packing innovations, procurement, and others. Design thinking is used to be able to build prototypes that could be low tech with the use of banana leaves as used for packaging or an enterprise that could support local engagements and engage citizens. Another example is the use of stainless steel and sterilizing equipment for businesses like restaurants.
 2. A four-day Hackathon was launched with 41 joining teams and 18 teams that went for the challenge. The hackathon looked into five enterprises: Suds, Tabo: a slow market, Wear Forward, JuanBag, and Agubay.
 3. Toolkit or technical implementation framework to enable and test the enterprises, how it can be replicated by others. Wala Usik is still working on the framework to ensure that the transition to the circular economy is equitable and accessible, and not to further disadvantage the already disadvantaged.
 4. Social marketing on mainstreaming and localizing to make plastic convenient must also be done by putting and investing across sections and boards to communicate why circular economy is needed.
- Wala Usik videos were shown. First video described the usefulness of the coconut tree from its water, trunk and then to its leaves and fruits. Second is about the micro, small, and medium enterprises’ (MSMEs) refill and reuse systems, and biodegradable packaging.

4.2 *Voluntary Sustainable Packaging Criteria*

Ms. Erica Nicole D. Gomez

Project Officer of the Philippine Center for Environmental Protection and Sustainable Development (PCEPSDI)

The presentation on the 'Development of Voluntary Guidelines on Sustainable Packaging towards Reduction of Marine Litter and Promoting Packaging from Alternative Materials through Market-Based Approach has the following highlights:

- Background of the National Ecolabelling Programme - Green Choice Philippines that provides criteria and certifies environmentally preferable products and services in the country through life cycle considerations, which is based on ISO 14024).
- The program is to implement the sustainable packaging project to increase ecolabelling criteria for consumable products and strengthen green consciousness in the market, which is being piloted in the Philippines.
- 81% of the global plastic waste pollution in the ocean is coming from Asian rivers, and 7 of the top 10 largest polluting rivers in Asia are from the Philippines due to the use of huge amount of packaging daily or the so-called "Sachet Economy."
- The project also conducted a workshop to know how the packaging ends up as marine litter. Some of the mentioned challenges were the lack of discipline, lack of education and information of the Ecological Solid Waste Management Act, lack of strict implementation of the law, and others. With the said challenges, the project aims to support both local and national initiatives and engage both the private and public sectors for collective action.
- The program has three objectives: Develop ecolabelling criteria and certify products for sustainable packaging, establish a private sector roadmap, and promote sustainable packaging through an environmental education and policy campaign.
- The program has three outputs. For Output 1, there is three coverage that includes market readiness study, comparative study, and GCP criteria for packaging and piloting.
- The Marketing Readiness Study includes seven product groups and not just plastic alone and based on the study, the top 5 packaging categories are as follows:
 1. Bio-based packaging
 2. Biodegradable and compostable packaging
 3. Pulp and paper packaging
 4. Packaging made with recycled content
 5. Reusable packaging and long-lasting alternatives

The Comparative Study Report studies the International alignment, existing standards, policies, and best practices that may be applicable in the Philippines. The study shows that specifying utilization criteria, sorting criteria, and material requirements among others.

The Criteria Development includes quality performance and environmental performance of the packaging. The NELP-GCP criteria for packaging products,

however, covers marine litter as the top issue, land use due to the problems of solid waste management (SWM) in the Philippines, ecotoxicity, and human toxicity were considered due to contamination as one of the top concerns and should be addressed in packaging.

Due to this, the requirement for the packaging that includes criteria for all packaging includes biodegradable, compostable with recycled content, recyclable with EPR, and reusable packaging. The criteria are still in the process of development, but the proponent ensures that the criteria will be non-discriminatory to technology, not to be descriptive, and it should address the priority issues that were identified.

- Output 2 is the establishment of a Private Sector Roadmap on Sustainable Packaging Towards Marine Waste Reduction, which is a strategic document that identifies key stakeholders to propose solutions and measurable targets toward a more sustainable packaging industry. To supplement the document is a series of workshops to ensure holistic and impartial results of the study. A value chain map was also presented on how packaging moves from extraction up to recovery. The presentation also includes the list of solutions and prioritized solutions with a focus on increasing awareness of product life cycle and impacts across stakeholders, EPR, livelihood opportunities, and others. The roadmap is being developed.
- Output 3 is on the conduct of educational and policy campaigns with a highlight on the policy recommendation guidelines to strengthen the drive to address marine litter and improve waste management. Two roundtable discussions were conducted that led to the identification of priorities like support for alternative packaging, and others.
- Policy dialogue with policy experts with four discussions themes that include SWM, design and manufacturing of alternative packaging, education and campaign for SWM and packaging, policy development, and technological development for packaging. The results of the discussions will be fed to the policy recommendation guidelines document for endorsement to the partner local government units in Western Visayas.
- As a way forward, four points were identified:
 1. Development of criteria and certification of packaging
 2. Development of private sector roadmap for sustainable packaging for sharing to the private sector for reference
 3. Educational campaign
 4. Policy recommendation guidelines are currently on drafting and endorsement to partners later on

4.3 *Reducing Plastic Bags in Traditional Markets in the City of Bandung and Banjarmasin*

Ms. Rahyang Nusantara, S.P., M.I.Kom

National Coordinator of the Gerakan Indonesia Diet Kantong Plastik (GIDKP) or the Indonesia Plastic Bag Diet Movement

The presentation on the Efforts to Eliminate SUP in Indonesia has the following highlights:

- The Indonesia Plastic Bag Diet Movement has a vision to free Indonesia from SUP pollution through opportunities, collaborations, and education. The movement has been able to push Bandung, Jakarta, and Bali to reduce the use of SUP bags. The

calls and campaigns were featured in two documentaries in Indonesia and in an international news documentary that won an international award.

- The baseline is a shift from the linear economy that shows that the use of plastics is not only a problem on land, air, and sea, but it is also a problem in the circular economy. SUP has no place so there is a move for reusable and renewable principles.
- Presentation of the Indonesian strategy on waste management with a focus on the waste reduction system. There is also a plan to eliminate certain SUPs by January 2030. Through advocacy with the local government, more than 50 cities in Indonesia have adopted plastic bans and phased implementation. The movement has worked with cities to build the framework to have a dialogue with stakeholders and build on its implementation.
- For example, in Bandung City in West Java Island, the movement has worked together with the local government since 2012. It took 7 years to implement the phased implementation and in the 6th year, the city has been able to reduce 8% of plastic bag use. The traditional market, however, was low on compliance, which prompted the movement to have a plastic-free market.
- In Jakarta, the capital city of Indonesia, the movement has been working with the local government since 2013. It took 6 years to motivate Jakarta to completely ban SUPs. In 6 months, Jakarta has been able to reduce 42% of SUPs at the household level.
- To make it happen, the movement has a support system to push the government and industry to not give away plastic bags for free. There was a petition to charge for the use of plastic. The said petition has been able to inspire the Ministry of Environment and Forestry to adopt the pay-for-plastic scheme. It also motivated the government to move ahead with the plastic reduction plan. So, there were workshops on capacity building with the local government that resulted in two regulations.
- The movement has also built on a model for the supermarket and traditional market to showcase that reusables are possible. Hence, it is still possible for the vendors to do business without using SUPs. Hand-crafted alternative or substitutes like the use of puron bags using indigenous materials was introduced. The movement also built a dialogue with other non-government organizations to make a bigger noise and narrative with the public that SUP should be eliminated, and reusable is possible. The project on the plastic-free market aims to change the behavior of the vendors and consumers to shift from single-use to reusable packaging. Continuous communication, events with different stakeholders and the media, and the conduct of research to have a baseline of the results.
- A video campaign on the plastic-free market was shown.

4.4 Open Forum

- Lessons learned encountered from the performance of the work.

Wala Usik: Aside from contextualizing circular economy to the sectors, the best lesson was the sense of community, which is a key to making any changes. The issues faced by the community from managing plastics will not be effective if there is no investment for the space and physical activity that could create a sense of community. For example, a festival could be an entry point to have the

community buy-in. Some communities will engage the religious leaders to participate.

GIDKP: Manage the communication and coordination flow. It will ensure that stakeholders are kept informed about the process, news and others. Although it was hard work to think how plastics can be reduced, yet the management of the coordination and communication to keep people happy and informed takes time, especially in keeping up with the market structure, local government structure, and others, which make it even harder because of the timeline.

PCEPSDI agreed that there is no one solution in addressing marine litter and there may also be conflict in the initiatives of the public and private sectors. However, PCEPSDI wanted to complement the initiatives and support the government regulations to provide incentives through eco-labeling. The challenges encountered were: 1) Concern on mobility due to the COVID-19, which makes it difficult to engage stakeholders; and 2) There were also some assumptions from the stakeholders that PCEPSDI will provide a product that is an alternative to the current packaging. However, the output of PCEPSDI is on the eco-labeling criteria and not the product itself, which makes it difficult to get the private sector interested. Due to this, PCEPSDI encourages businesses who might want to get certified as an incentive to the said businesses.

- Sharing of experiences of stakeholders:

Although there are challenges in the restrictions and safety protocols due to the COVID-19, ways are being explored to maintain sustainability on the packaging. For example, use of containers, less usage of disposables even paper. Instead of disposables, the catering company was pushing for the use of lunchboxes that can be washed and sanitized. The company also pushes the government offices to show them that there are businesses that are taking initiatives and also with the hope that other businesses will follow.

- On the next steps:

Wala Usik: The organization is at the stage where it can learn more on how to change the system. However, capital would be needed, especially for microbusinesses to cover the upfront cost. Grants would be not be given to all businesses, but it is an opportunity to make the local government understand the upfront cost to transition to the circular economy and answer the pragmatic concerns of businesses that affect the operations and bottom line.

PCEPSDI needs to have a strong policy foundation to make the initiatives effective. The need for a policy led to the policy guidelines document that PCEPSDI wanted to produce for the local government partners.

GIDKP: The cultural aspect is another important approach to see and create a model for the traditional market.

5.0 Breakout Room 2: Improvement and New Approaches for Plastic Waste Management

Moderator: Elena Rabbow, Rethinking Plastics Key Expert

5.1 *Plastic Waste Recycling*

**Dr. Pratin Kullavanijaya
Researcher of Chulalongkorn University, Thailand**

The presentation on the Enhancement of Plastic Waste Packaging Waste Segregation Performance for Closed-loop Recycling has the following highlights:

- The project in Thailand is specifically on the efficiency of plastic packaging waste segregation. The improvement or enhancement of the project includes an analysis of the overall system in plastic segregation in the selected provinces. The overall system may have an impact on the performance and the identification of the technology needed to increase the removal of plastics. The results would build on the recommendations to the needed policy. However, the restrictions due to COVID-19 led the organization to adopt some technologies or online platforms that could help implement, correct, and monitor online.
- The coastal provinces with industries like the fruit processing plant and plantations and those with recycling plants in the area were selected. Accordingly, the said provinces have strong collaborations with private companies and the communities, which enables them to get data that could help identify the strengths and weaknesses. For example, an agricultural community turned into an industrial community that led to the movement of the population (internal migration).
- The recycling plants will hold as a holder of plastics to make new materials. However, not all plastics go into the loop since some ended up in combustion or landfills. Thus, increase recycling plants to ensure circularity. The generation source up to the junk shops, or from waste pickers to the junk shops. However, plastic segregation should begin at home and not be mixed with other waste. A plastic waste management technology is needed to move plastics from the generation source to the recycling plants. However, the recycling project involves high cost, which needs to be reduced and it could start from the segregation of plastics at home.
- The use and segregation of plastics used in daily lives can be segregated based on salability, while there are unsalable projects as well. The price of plastics also varies depending on the type of plastics - clear, clean, and colored. The separation trend of one plastic to another needs a high price since it is difficult to separate and costly. The unsalable plastics, on the other hand, are made of composite materials that contain paint on the cover of the plastics. Its salability is affected, which prompted it unsalable. The trend of plastics was also affected by the factors of cleanliness, salable, price, and difficulty to process.
- The key benefit from the project is that the price of plastics could increase if they are separated correctly (clear, clean, and colored). Using compaction to reduce the size of plastics would need a big space, but it would significantly reduce the transportation cost. More compacted plastics can be transported.

5.2 Overview of Extended Producer Responsibilities and the Different Country Approaches

Mr. Christophe Pautrat

Head of Global Partnerships and Operations Development in the Landbell Group, and Consultant of Rethinking Plastics Project

The presentation has the following highlights:

- The definition and concept of EPR is a way to shift the responsibility of the end-of-life of a product. It is making the producer responsible for the life cycle of the product. Shift the cost to the society to benefit from the product while protecting its profitability. Incentivize products that have a lesser environmental footprint that is easier to recycle.

- Common EPR ways was presented with a focus on ways to deal with recycled plastic waste that includes recycling content standards, take-back, and deposit/refund.
 1. The deposit/refund is often seen in the beverage containers and consumers get some peony back after dropping off the can of soda at a drop-off point. It is creating an opportunity for the consumers to get some money back and some incentives for the pickers for returning several kilos of cans.
 2. The take-back is creating a burden on the producers for them to take back the wastes that arise from housing bins and municipal collection bins.
 3. The recycling content standards are introducing a minimum recycling component or requirement.
- The implementation of EPR also implies the responsibility of the value chain from the producers, local and national authorities, packaging manufacturers, waste managers, and others. EPR relies on the involvement of multiple stakeholders with a focus on clearly defining the roles and responsibilities in EPR.
- There are two ways to organize EPR: individual basis through consumers and waste management operators. However, a middleman is needed to ensure the responsibility of multiple producers is organized.
- Multiple ways to organize collective EPR – take-back scheme and deposit return system (DRS). For the take-back scheme, operational and financial models. In the operational model, companies or entities will organize the value chain with select vendors to get the waste moved to the recycling point. In the financial model, however, the Producer Responsibility Organization (PRO) subsidizes the reverse chain to cover finance operations. The DRS, on the other hand, is on the management of the deposit system of containers.
- Roles and responsibilities of the PRO with some of the roles include achieving collection and recycling/recovery targets and achieving waste reduction targets.
- Presentation of examples of PRO practices in Germany, Indonesia, and other countries. France is focused on the financial model wherein the PRO is subsidizing municipalities and contracts, waste managers. In Portugal is a mix of the models in France and Germany wherein municipalities were consulted for the waste collection and sorting. However, it is the responsibility of the PRO for the materials and the marketing of the materials. In Indonesia take stock of the local situation, infrastructure, or the lack thereof. It looks at the involvement of various stakeholders and subsidizing the operations of waste bans and awareness programs.
- The EPR is a simple concept, but it can take many shapes and guises in terms of implementation. EPR also must fit in the reality of the country and other material that it is addressing to make it successful. Basic steps to implement EPR was presented.

5.3 Zero Waste to Nature: Ambisyon 2030 Packaging Strategy and Roadmap

Mr. Crispian Lao

Founding President of the Philippine Alliance for Recycling and Materials Sustainability (PARMS)

The presentation on the Enhancement of Plastic Waste Packaging Waste Segregation Performance for Closed-loop Recycling has the following highlights:

- The Philippines may be the last to develop a National Plan of Action on Marine Litter, but the country has been able to develop a comprehensive program. The program has a programmatic cluster and crosscutting cluster. Under the programmatic cluster, the discussion will focus on circular economy (CE) and sustainable consumption and production (SCP), and recycling and market enhancement.
- The marine litter strategy in the Philippines is focused on the programmatic clusters. Each strategy also has focal agencies to implement activities on the ground to solve the marine litter issue.
- The private sector's response to the calls on issues on plastic waste came out with Zero Waste to Nature: Ambisyon 2030. The program lies on activities to reduce waste generation through packaging design by increasing the recyclability of product packaging put out in the market and voluntarily phasing out non-recyclable products for packaging materials where environmentally sound alternatives exist.
- Under the Ambisyon 2030 also includes continuous exploration of reusable models. There are pilots for the recovery of waste across communities and recover the resource for recycling. The declaration was done in 2020 and the roadmap was released last October 2021. The objectives of the roadmap include strategy, enabling policies, and a glide path with an ambitious trajectory of diversion rate in the next 10 years.
- PARMS conducted a study with an initial focus on packaging waste. The volume of the study was established and cross-checked with the market data of Nielsen. Part of the plan is to remove color and text in the packaging. It was shared that the first bottle to a bottle recycling facility will be established in the Philippines by 2022 with an expectancy to grow over the next 10 years. The focus is also on the flexibility that would have a potentially high leakage. The graph also shows the scenario wherein the infrastructure is in place, and the system would be able to absorb the increased capacity. The focus on reuse, necessary infrastructure should be in place as well with a 20% incremental increase in the next 10 years.
- A diversion roadmap was shown with 2022 as target on the establishment of labeling or identification of materials used in the labeling with an initial focus on existing materials. The identification of actual materials that are used for the packaging materials should be identified. It would help identify how to treat the said materials.
- PARMS also conducted an intensive study on the different EPR systems, which led them to identify a system of voluntary basis that could work in the Philippines. The said system has multiple PRO with multiple waste diverters under a competitive, standardized, transparent, accountable, and includes Credit Scheme Diversion Model. Instead of putting a fee to the PRO, the companies will be obliged to purchase credits from the waste diverter. The said model allows companies to declare plastic neutrality. Other enabling policies and mechanisms include:
 1. National recycling labeling standards for packaging
 2. The industry-level shift from low diversion value flexible to high diversion value flexible

3. Economic incentives to drive investments in recycling and waste processing
 4. Instruments to drive market uptake of products from waste
- The EPR will benefit the people, but it needs a PHP 15.1 billion infrastructure investment for new recycling and waste diversion facilities. The EPR, however, will create a minimum of 4,000 green jobs, and the EPR fees will support waste recovery and will generate approximately PHP 5.2 billion of annual additional income for the informal waste sector and the Barangay Material Recovery Facilities (MRFs). The Philippines has 42,024 barangays that need funding, which the credit system can provide.

5.4 Open Forum

- Inquiry on the cost-benefit of EPR in terms of the number of jobs and income that can be created.

The added income needs no investment. The number of 5.2 billion Pesos additional income is for the recovery of packaging for items that are not being recovered currently. It is an inflow to the recycling system in the Philippines since only high value recyclable materials are being recovered currently. If the collection of flexible along with the rigid is incentivized, they can be properly collected, recycled, and treated. Hence, there is a need to support the activities of the enterprises and NGOs on the ground. The cost analysis, the 5.2 billion is without an investment since it is a recovery. What can be done is to develop a market that could be used in construction, asphalt, and even fuels.

- Process of stakeholder management on the changes that took place as part of the process of setting up an EPR scheme.

PARMS has 11 Fast-moving Consumer Goods (FMCG) companies, with half as global companies and another half as local brands. It is not easy to get everybody to agree on a single system, but it was made possible through piloting. PARMS first focused on companies with equipment that needs to be translated locally. There will be the implementation of some pilots on the ground and bring in other stakeholders to participate. Lacking the direct mandate of the government, the Roadmap has been developed.

The Roadmap will feed into the NPOA-ML and the Philippine Development Plan (PDP). Once done, the whole industry and citizenry can be steered in one direction.

Highlight education that will be taught in elementary schools. Modules were developed to be taught in city centers for Grades 1 to 10, which helps educate the consumers.

- How are we seeing the participation of households in returning the plastics to a facility that can do the recycling?

There are drop-off points in the key cities in Manila. If there will be an EPR Law, it will be implemented across the Philippines. There are MRFs but some barangays may not have the MRFs as prescribed by law or bring it to drop-off centers in shopping malls.

It is the same in Thailand. There are drop-off centers in shopping malls.

- (Referring to the presentation of PARMS) To achieve the goals, there is a dependency on the input to the circular plastic system. Is there any organization that overlooks other nongovernment organizations (NGOs) or others that organize the collection of plastic waste?

PARMS has partner NGOs in terms of social enterprises that do work in the ground. The NGOs are also connected to companies that are looking at waste recovery. The challenge of having a single or multiple PRO is that companies adopt the enterprises or community groups that are already existing.

- How to start your social enterprise to encourage recovery?

Look into the type of waste for separation and the MRFs in the area or tap what is available. In Cagayan, there may be a backloading arrangement with cement facilities. (In the chatbox) Co-processing is a low-hanging fruit that is available in the short term to prevent leakage. In the long term, PARMS is looking at resource recovery.

- Under which standard(s) will the credits issued by the processors be recognized?

The standards have already been drafted and piloted. PARMS is looking at the formalization of the standards by the Philippine National Standards. To make it work, there should be a national standard to calculate credits. PARMS is looking at Vera and other resources to develop the standard.

- PARMS looks at co-processing as the leading solution for waste treatment by 2022. What do you think of the criticisms against these practices as this means burning plastics, and may cause further harm to the environment?

PARMS has NGO partners in terms of social enterprises and connects them to companies. Tap enterprises present in the ground and link them to companies.

- Digital solutions in dealing with marine litter

There are digital solutions. Even the DENR has digital solutions where they can mark wastes in an open dump for reporting. There are digital solutions to point to the locations of the MRFs.

The development of digital apps is one of the ways to push the integration of waste pickers.

6.0 Wrap-up & Synthesis

Speakers: Lena Kampe and Elena Rabbow, Rethinking Plastics Key Experts

The wrap-up and synthesis covered the discussion highlights of the two breakout session groups.

6.1 *Sustainable Consumption and Production of Plastics Synthesis:*

The breakout session was led by resource persons from PRRCFI for the Wala Usik project, PCEPSDI, and IPBM. The following are the key findings:

- Connect to cultural heritage and traditions for solutions. Reuse or use of natural materials is not new.

- Use new methods and support the innovations on businesses, new thinking, and ideas. Bring multiple sectors together to build on expertise and knowledge about SCP.
- Communication and education are key.
- Connection to existing regulations like in Indonesia on the existing regulations and connect it to the implementation.
- Advocate for change.
- Comprehensive action among stakeholders.
- Challenges being faced due to the COVID-19 need creativity in tackling solutions to reduce marine plastic waste.
- Adapt to changing circumstances.
- Work with the private sector on investment ideas and innovations.
- The community can drive a change and a sense of community is key.

6.2 *Improvement and new approaches for Plastic Waste Management Synthesis:*

The breakout session was led by resource persons from Chulalongkorn University in Thailand, the Rethinking Plastics Project, and PARMS. The following are the key findings:

- There are salable and non-salable plastics.
- Important factors for separation trend vs buying of material: price, cleanness, awareness, and difficulty.
- Key benefits of plastic waste recycling.
- EPR is a diverse context that is supposed to be implemented.
- Stakeholder management is key and the responsibilities must be defined among all stakeholders in the value chain.
- The concept of collective EPR compliance is more common in packaging EPR than fulfilling the obligations on an individual basis.
- The NPOA-ML and a Roadmap was published last October 2021 with basic components of reducing, reusing, recovering, and recycling.
- Elaboration on the benefits of EPR to the people.

6.3 It was noted that the results of the discussions will serve as a recommendation in the conduct of the upcoming EAS Congress 2021 this December 2021.

7.0 Closing Remarks

Speaker:

Dir. Datu Tungko Saikol, Biodiversity Management Bureau, Department of Environment and Natural Resources

Director Datu Saikol expressed his gratitude for the participation of colleagues from Thailand and Indonesia, and the participants from other government agencies, and the private sectors, and the development partners like EU, PEMSEA, GIZ, and others. He also expressed his

gratitude for the attendance in Zoom and through Facebook Live. The highlight of the closing remarks is as follows:

- The event recognizes the challenges of saving the oceans and tackling marine litter. Thus, the event brings together the lessons learned to address marine litter. The experts' contributions from the panel of speakers tried to shed light on how marine plastic litter affects us on a global scale and how countries are addressing the said challenge.
- The distinctions and different levels of commitment, the strategies from the EU together with the initiatives at the ASEAN level and the policy framework of countries in Southeast Asia show the progress of the international community in finding a common ground to identify solutions to the growing issues.
- In the Philippines, the DENR leads the roll-out of the NPOA-ML. The document is anchored to the Philippines' International commitment, provides a blueprint to enhance the current effort of the country in resource and waste management, and to bring additional lens to marine litter issues and the control of additional leakage of waste into bodies of water.
- Initiatives on SCP and new approaches on plastic waste management in different countries was heard. These efforts from the private and civil sectors show the steps going forward. It also underlines the longer and wider road to address plastic pollution and marine litter.
- Finally, he highlighted that participation from all sectors is needed to fully achieve a holistic, sustainable, and circular economy. The fight to reduce marine litter continues. Together, we can work and organize urgent and concrete actions.'

ANNEX 1. PROGRAMME.

November 2021, at 2:00 PM - 4:00 PM (GMT+7)

TIME	DURATION	TOPIC	
14.00 – 14.05	5 mins	Opening Reminders <ul style="list-style-type: none"> • Housekeeping • Technical information 	
14.05- 14.15	10 mins	Opening Remarks Mr. Matej Dornik EU Delegation Representative	
14:15- 14:55	30 mins	Panel Discussion on Challenges and Policy Measures for Circular Economy in the Context of Marine Litter Moderator: Victor Tumilba Mr. Alvaro Zurita Team Leader of the Rethinking Plastics Project Dr. Arisman Executive Director of the Center for Southeast Asian Studies (CSEAS), Indonesia Ms. Maria Delia Cristina Valdez Chief of Solid Waste Management Division of the Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR) Dr. Maria Lourdes Moreno Chief of Coastal Zone and Freshwater Research Division of the Ecosystem Research and Development Bureau (ERDB), DENR	
BREAKOUT ROOMS			
		BREAKOUT ROOM 1: Sustainable Consumption and Production of Plastics	BREAKOUT ROOM 2: Improvement and new approaches for Plastic Waste Management
14:55- 15:00	5mins	Introduction to the breakout room and brief overview of the topic (<i>Lena Kampe, Rethinking Plastics Key Expert</i>)	Introduction to the breakout room and brief overview of the topic Moderator (<i>Elena Rabbow, Rethinking Plastics Key Expert</i>)

TIME	DURATION	TOPIC	
15:00 – 15:30	30 mins	<p>Wala Usik: Innovative Circular Economy for Micro, Small and Medium Enterprises (Mr. Dave Albao, Executive Director of Philippine Reef and Rainforest Conservation Foundation, Incorporated [PRRCFI])</p> <p>Voluntary Sustainable Packaging Criteria (Ms. Erica Nicole D. Gomez, Project Officer of the Philippine Center for Environmental Protection and Sustainable Development [PCEPSDI])</p> <p>Reducing Plastic Bags in Traditional Markets in the City of Bandung and Banjarmasin (Ms. Rahyang Nusantara, S.P., M.I.Kom National Coordinator of the Gerakan Indonesia Diet Kantong Plastik (GIDKP) or the Indonesia Plastic Bag Diet Movement)</p>	<p>Plastic Waste Recycling (Dr. Pratin Kullavanijaya, Researcher of Chulalongkorn University, Thailand)</p> <p>Overview of Extended Producer Responsibilities and the Different Country Approaches (Mr. Christophe Pautrat, Head of Global Partnerships and Operations Development in the Landbell Group, and Consultant of Rethinking Plastics Project)</p> <p>Zero Waste to Nature: Ambisyon 2030 Packaging Strategy and Roadmap (Mr. Crispian Lao, Founding President of the Philippine Alliance for Recycling and Materials Sustainability [PARMS])</p>
15.30 – 15:45	15mins	Discussion/Q&A (Moderator: Lena Kampe, Rethinking Plastics Key Expert)	Discussion/Q&A (Moderator: Elena Rabbow, Rethinking Plastics Key Expert)
PLENARY			
15:45- 15:55	10mins	Wrap-up/Synthesis <i>Lena Kampe and Elena Rabbow,</i> Rethinking Plastics Key Experts	
15.55 – 16:00	5mins	Closing Remarks Datu Tungko Saikol, Director, Biodiversity Management Bureau, Department of Environment and Natural Resources	

ANNEX 2. LINK TO PRESENTATION MATERIALS AND VIDEO RECORDING.

Presentation materials - <https://tinyurl.com/GIZcollab-Presentations>

Video recording - <https://youtu.be/EDp07pC5-Eo>