This brochure was prepared by the project "Rethinking Plastics – Circular Economy Solutions to Marine Litter", which 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 (EF). As regards the summary of project results, the content is the sole responsibility of GIZ and does not necessarily reflect the views of EU and BMZ.

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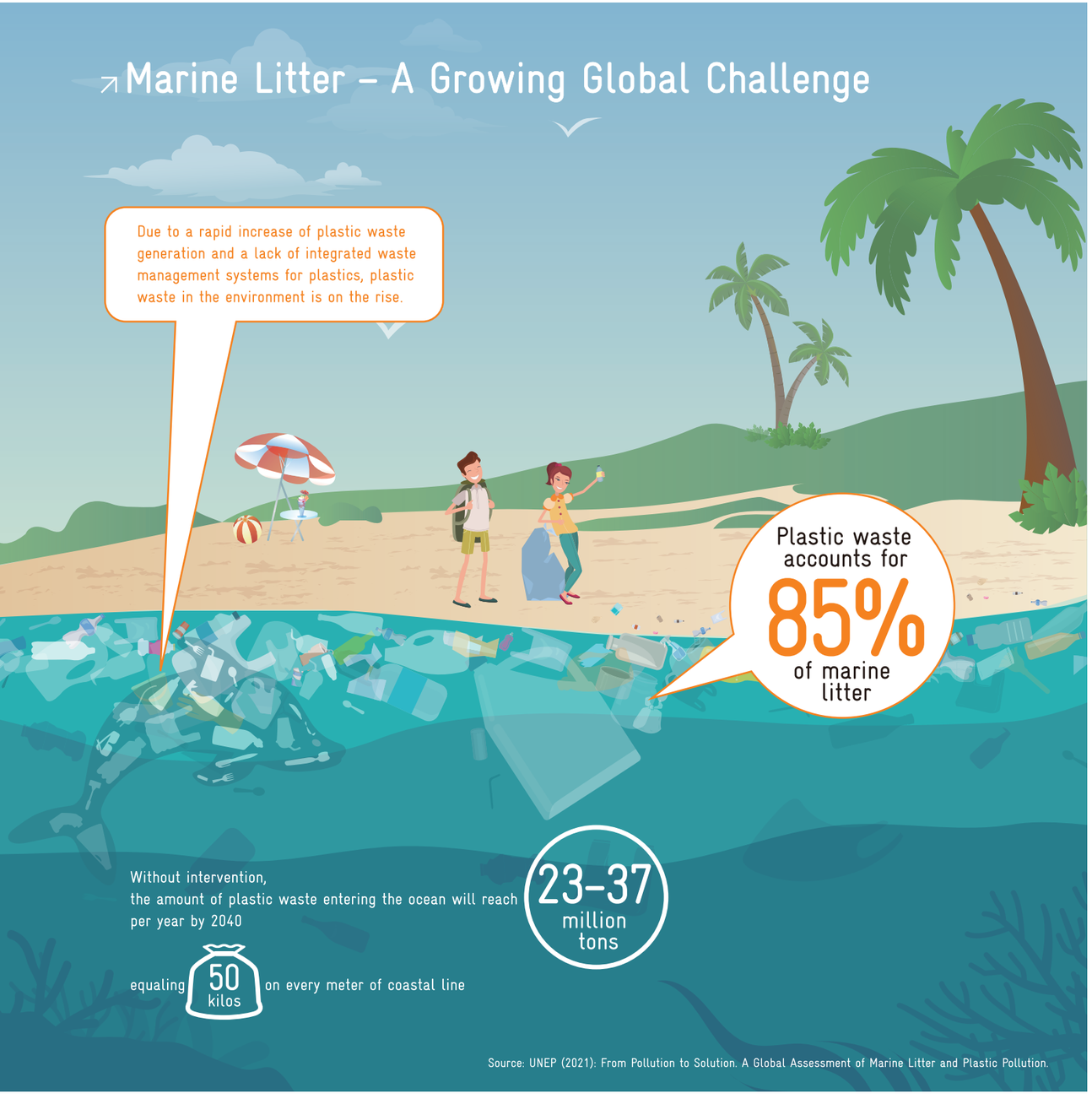
Rethinking Plastics – Circular Economy Solutions to Marine Litter

Project Results in the Philippines


Reduce Plastic Waste
and Protect the Ocean!

Marine Litter – A Growing Global Challenge



Source: UNEP (2021): From Pollution to Solution. A Global Assessment of Marine Litter and Plastic Pollution.

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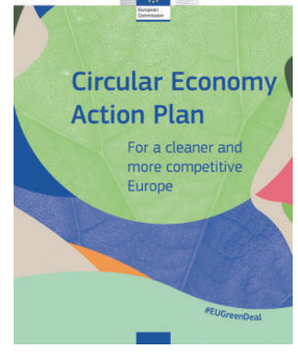
Rethinking Plastics
Circular Economy Solutions to Marine Litter

Circular Economy Solutions

To tackle the global plastic waste challenge, joint efforts are needed for circular economy. The European Union (UE) presented the Plastic Strategy and Circular Economy Action Plan, as well as issued the Single-use Plastic Directive, aiming to reduce marine litter. In recent years, Philippines has also released a series of policy documents to promote plastic management along the whole value chain and reduce plastic leakage into the environment.



Circular Economy Action Plan

Single-use Plastic Directive

Source: European Commission

Project Information

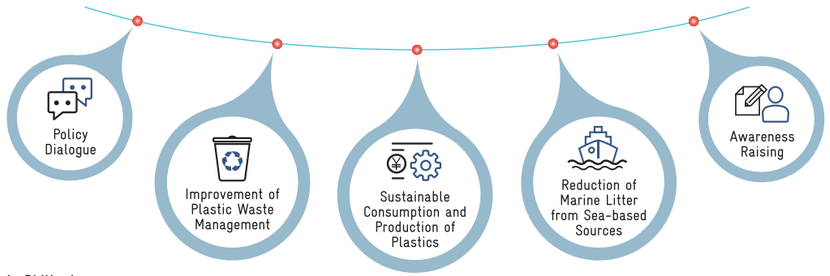
Rethinking Plastics – Circular Economy Solutions to Marine Litter

Contracting Authority	European Union (EU), German Federal Ministry for Economic Cooperation and Development (BMZ)
Implementation Organization	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Expertise France (EF)
Partner Countries	China, Indonesia, Philippines, Thailand, Vietnam, Singapore and Japan
Implementation Period	May 2019 to October 2022

Objectives

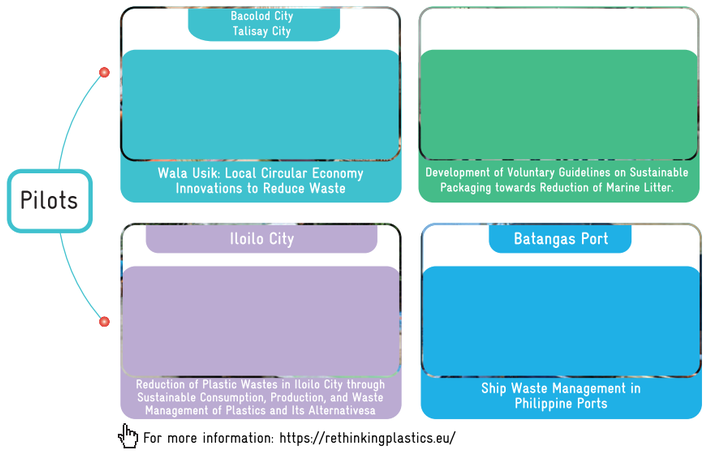
The project supports the transition towards a circular economy for plastics in East and Southeast Asia to reduce plastic waste leakage into the sea and thus marine litter.

Action Areas



Rethinking Plastics in Philippines

Rethinking Plastics contributes to the implementation of relevant national policies and actions on circular economy and the reduction of marine litter, especially the National Plan of Action for the Prevention, Reduction, and Management of Marine Litter (NPOA-ML). Concretely, the project explored options for Extended Producer Responsibility (EPR) schemes for packaging waste as well as policy options to reduce single-use plastics in the food sectors. It also supported improvements of plastic waste management at the household and community level in Iloilo City; the piloting and promotion of local circular economy approaches for Micro, Small, and Medium-sized Enterprises (MSMEs) in Bacolod and Talisay City; and the development of a voluntary guideline and ecolabel for packaging. It also supported policy reviews and trainings to improve management of and reduce plastic waste in ports. Finally, it implemented communications and awareness raising activities to promote and translate the concept of sustainable consumption and production to a wider range of stakeholders.



For more information: https://rethinkingplastics.eu/

Key Concepts

01 Waste Hierarchy

The hierarchy provides a generalised priority order for waste reduction and management: Prevention, as well as the 3R principle (Reduce, Reuse and Recycle) are on top and should be promoted. The focus for the remaining waste is to phase out uncontrolled disposal (e.g. open dumping and burning).

Source: UNEP (2015), Global Waste Management Outlook.

02 Circular Economy

In a circular economy, resources are used and managed in a more efficient and sustainable way through the principles of "Reduce, Reuse, Recycle".

03 Extended Producer Responsibility (EPR)

EPR is an environmental policy approach in which a producer's responsibility for a product is extended to the waste stage of that product's life cycle, including collection, sorting, recycling or final disposal.

Source: Basel Convention (2019): Practical Manual on EPR.

04 Deposit-Refund System (DRS)

In a Deposit-Refund System, the packaging is given an economic value by requiring consumers to pay a deposit at the point of sale. When the empty packaging is returned, the deposit is refunded. The DRS has proven to be an effective way to collect plastic bottles for high-quality recycling.

05 Sustainable Consumption and Production

Sustainable consumption and production encourages circular economy development, in which the reduction of single-use plastic products, reuse and recycling are promoted. Products can for example be designed in a way, that they use less packaging or that they can be reused and recycled. Consumers can choose more sustainable or reusable alternatives, refuse over-packaging, or bring their own bag, cup or cutlery.

06 Awareness Raising

Awareness raising is an important approach on environmental topics that aims to inform and engage people regarding more environment-friendly and sustainable attitudes and behaviors. The target groups cover decision makers on policy level and in businesses, youth and consumers etc.

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Sustainable Consumption and Production

Problem

Single-use plastics (SUPs) such as takeaway containers, drinking bottles, plastic bags, and cutleries have become the material of choice in food consumption. Consumer behavior shifted from eating out to availing takeaway food through online food delivery services. The growing reliance on food deliveries and the tendency to resist reusability in favor of disposables out of fear of COVID-19 also meant an increased consumption of SUPs. This has a huge impact in the Philippines, 35% of about 2.15 million tons of plastics for local consumption are uncollected or leaked to the environment. Only 9% of the country's plastic waste is recycled. As such, actions to reduce and avoid single-use plastics are needed.

Contribution by Rethinking Plastics

Policy Brief on reducing SUPs in food consumption delivery, and takeaway

+

Policy Options Report for reducing SUPs in food consumption, delivery, and takeaway

+

Scoping Report and List of Multi-used Alternatives

+

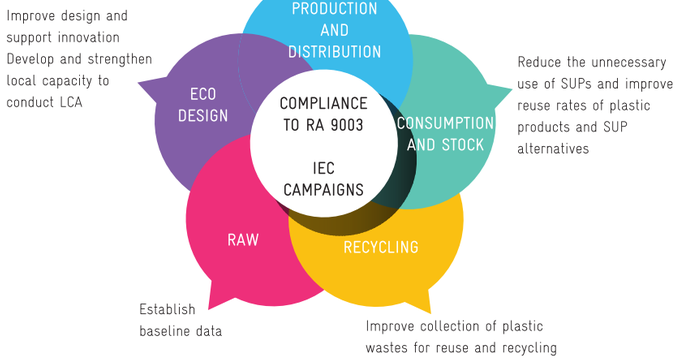
Webinars
Reducing Single-Use Plastics in the Food Delivery and Takeaway Sector: Regional Guide and Practical Examples
SUPs in Food Consumption, Delivery, and Takeaway: Challenges and Solutions

+

Pilot projects to test solution

Solution

A shift from a throw-away society to a circular economy is necessary. The national government must address the plastic waste problem through systems change, starting from the design and production of plastics, ensuring efficient collection of wastes for reuse and recycling, up to proper waste management at end-of-life



POLICY BRIEF ON REDUCING SINGLE-USE PLASTICS IN FOOD CONSUMPTION, TAKEAWAY AND DELIVERY

The project commissioned a study that looked at relevant policy options to reduce reliance on SUPs in food consumptions, takeaway, and deliveries. A review of existing policies, legal, and institutional framework surround SUPs and the current state of plastic waste management in the Philippines has led to determining four major interlinked issues on plastic waste management in the country: poor waste segregation, poor waste collection and low recycling rate, low incentive to produce products with recycled content, and low incentive to reduce consumption of SUPs and shift towards non-SUP packaging materials. The report turns these into opportunities to improve plastic circularity throughout the plastic's life cycle and identified the following objectives that inform a list of policy options:

1. Improve design and support innovation to make plastics and plastic products easier to recycle
2. Improve reuse rate and collection of plastic wastes for recycling along the whole value chain
3. Increase use of non-SUP/multi-use alternatives
4. Increase the share of recycled plastics in the plastics sector

Scoping Report

The Scoping Report provides a literature review and analysis of the life cycle studies or life cycle assessment (LCA) meta-studies comparing different types of SUP products with alternatives that are currently available in the Philippines.

The order of preference for action to reduce and manage plastic wastes should follow the waste management hierarchy, according to which the avoidance of waste should be preferred over all other options

Replacing single-use fossil-based plastic products with another made of a different material (e.g. paper, oxo-degradable and biodegradable plastics) tends to simply shift the environmental impacts and create other problems (UNEP, 2021c). Consequently, substitution will not lead to an overall better environmental benefit.

While single-use plastics often appear as the cheapest option, it should be recognized that its "true" cost will often result in higher price once externalities are factored in such as the health and environmental impacts over the product's life cycle, ecosystem impacts, biodiversity impacts, cost of waste management, and the negative economic impacts in tourism and fisheries.

IDENTIFIED NEEDS

- Improving the collection of plastic wastes for reuse and recycling by setting targets of waste collection/recycling and enhancement of LGU's implementation of Ecological Solid Waste Management Act (RA 9003)/ Extended Producer Responsibility (EPR).
- Expanding and strengthening the plastic recycling industry.
- Reducing the unnecessary use of SUPs and improving reuse rates of plastic products and SUP alternatives by adopting circular business models and an online platform for an inventory of businesses offering commercially available non-SUPs and multi-use SUP alternatives.
- Improving the design of packaging and supporting innovation through standards/guidelines for sustainable packaging design and partnership between government and private sectors.
- Developing and strengthening local capacity to conduct locally adapted Life Cycle Assessment (LCA) of proposed alternatives.
- Mandating producers, importers, and retailers of food packaging, cutleries, cups, and straws to report data on the types and amounts of packaging they place in the market.
- Inform about the need to reduce single-use and available alternatives.

Recommendation

1. To achieve a wider use of reusable products, the adoption of circular business models for alternative food packaging and delivery systems such as the purchase of products in refillable containers or reusable packs and take back mechanisms for reusable food packaging/containers should be supported and incentivized.
2. The Food and Drug Administration should review the development of new regulations pertaining to refilling initiatives to support the adoption of new circular business models for alternative food packaging and delivery systems, leading to the reduction of SUP consumptions.
3. Industry and various stakeholders should adopt policies including bans or regulations on the production and use of certain SUPs, Extended Producer Responsibility (EPR) schemes, market-based instruments such as tax or levy on SUPs, circular business models, deposit refund schemes, subsidies supporting innovation, production and research efforts on alternative materials, education and awareness raising, and voluntary agreements / initiatives.
4. The industry should provide financial support to the research and development of projects on alternative materials and the pilot testing of production.

CALONGE, Jing | SUP Expert

Even if we stop making and disposing plastics now, we have no choice but to deal with plastics disposed years ago. Source reduction is the best option we got, which is something that circular economy could achieve.

Bacolod City
Talisay City

Wala Usik: Local Circular Economy Innovations to Reduce Waste

Partner

Philippine Reef and Rainforest Conservation Foundation, Inc. (PRRCFI)

Problem

In the Philippines, SUPs are most commonly used in the products that are abundantly accessible in the sari-sari stores and other Micro-, Small and Medium-Sized Enterprises (MSMEs). To reduce and eliminate SUPs in their operations, MSMEs need support in switching to alternatives and developing new ideas and approaches.

Contribution by Rethinking Plastics

- Piloted 8 sari-sari stores that reduce single-use plastic packaging from fast-moving consumer goods
- \+ Supported innovations across 10 MSMEs, such as sari-sari stores, carinderias, eateries, canteens, or restaurants, aiming to reduce or prevent single-use plastic waste.
- \+ Raising local awareness and action on waste management interventions
- \+ Developed and supported ideas and built circular economy networks through hackathons (Wala Usik Challenge: A Circular Economy Hackaton and Wala Usik Challenge 2022: #HackThePackaging)

Solution

Waste Reduction Mechanism

Deploying deposit-return schemes, refilling/dispensing/reusable technologies, and delivery mechanisms with competitive retail profit margins

Developing business models with local innovations in production, packaging, and distribution of consumer goods, usually purchased in selected sari-sari stores or canteens/eateries to reduce single-use plastic packaging

Business Opportunities

Partnering with local producers of sustainable products and packaging concepts that were designed and tested

Innovations on Business Approaches

Supporting innovation through building circular economy networks and fostering local approaches and ideas

Campaigns

Supporting local government units in empowering constituent communities for waste management interventions such as reduction, proper segregation, and collection at source

Observations

- There are an estimated **800,000** sari-sari stores serving low-income families in the whole country.
- Sari-sari stores are included in the MSMEs (micro, small, medium enterprises) sector which make up **99.52%** of businesses and employ **62.9%** of the workforce in the Philippines.
- With a population of **1,043,286** covering Bacolod, Talisay, Silay, Bago and Murcia, Metro Bacolod is the **8th** most populous and **6th** most densely populated out of **12** metropolitan areas in the Philippines.

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Results

12 schemes, technologies, and approaches for reducing single-use plastic packaging were innovated and prototyped locally through a business development support program. This resulted in the prevention of 214 kg of SUPs entering the ocean.

11 MSMEs tried and tested 12 innovative schemes, technologies, or approaches to reduce and replace single-use plastics. The MSMEs catered to 1,500 consumers who availed of their products and services.

> "As a business owner, I do realize everyday that having a business we accumulate a large amount of plastic that we dispose of every single day. Imagine for a single business we can produce 10kg of trash in a day, multiply that to 30 days, that's 300kg of waste in a month. Wala Usik Economy is a good project because through this, in my own little way I know I can contribute to save our environment".
>
> Laverne Traifalgar, Restaurant Owner, Thirdwave Restaurant

> "Though the Wala Usik concept is new to my husband and I, we are really interested not just for us but for our children's future, that they too can experience and enjoy a clean environment. I wanted to make people realize that our planet is dying, and us as a small entrepreneur can help contribute to avoid this problem"
>
> Tania Rheil Garcia, Food Stall Owner, Eleven11 Shawarma Station

Toolkit for MSMEs Implementing Circular Business Ideas

A toolkit for MSMEs was developed through the results of multistakeholder roundtables and consultations as well as inputs from international network experiences in circular economy for deposit-return schemes, dispensing technologies, and delivery mechanisms.

59 multi-sectoral representatives provided inputs, shared experiences, and technical information to develop the toolkit.

Bacolod City
Talisay City

Wala Usik: Local Circular Economy Innovations to Reduce Waste

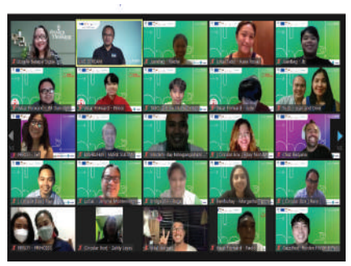
Philippine Reef and Rainforest Conservation Foundation, Inc. (PRRCFI)

Results

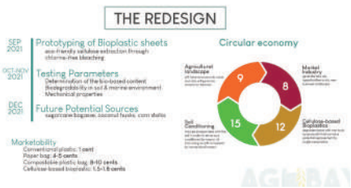
Wala Usik: A Circular Economy Hackathon
27-30 August 2021

This Hackathon built a network of advocates, ideators, entrepreneurs and innovators working towards sustainability and a localized circular economy. The Hackathon provided mentoring sessions and technical guidance as participants prepare to pitch their innovations which (1) design out waste and pollution, (2) keep materials in use, and (3) regenerate natural resources.

Wala Usik 'hacks' or circular innovations submitted by the Challengers range from apps and platforms which use artificial intelligence and machine learning to calculate a person's carbon footprint, promote circular fashion, and make recycling easier, to alternative packaging materials produced from agricultural waste such as rice hulls, sugar bagasse and corn husks. Startups that encourage refilling and reusable bags and containers, and which support local and sustainable businesses, are also in the spotlight.



WINNERS' CIRCLE

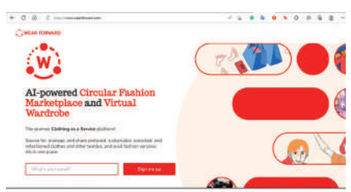


Agubay: Cellulose-based bioplastic from rice hulls

JuanBag: Returnable and Reusable Packaging For Online Shops

Lokal Lab: How suka, toyo, and patis will help the island become a zero-waste model

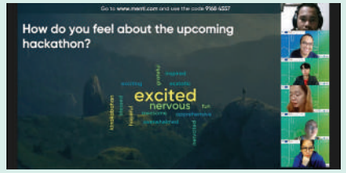
Suds: Single drop refills of cleaning product in water soluble film

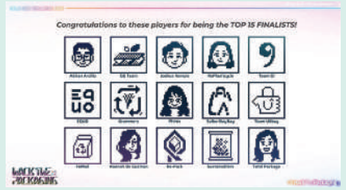


Wear Forward: An online circular fashion platform where one can buy, rent, and swap preloved, upcycled, and refashioned clothes

Wala Usik Challenge 2022: #HackThePackaging
9 February – 20 April 2022

The hackathon gamified the processes of learning and applying circular design through the support of thought leaders in sustainability in the region. Participants were encouraged to generate design ideas for packaging that will reduce single-use plastics and other polluting materials in the food delivery and takeaway sector, e-commerce shipping, and retail of fast-moving consumer goods. Ideas included packaging alternatives made from agricultural, textile, and industrial wastes as well as packaging that could be repurposed and re-used thereby extending its lifespan.





Magalog of Circular Packaging Ideas

As a result of the hackathon, an open-source magazine + catalog of circular packaging ideas to inspire everyday circular thinking and future business ventures in circular economy.

Recommendation

1. Foster greater acceptability of zero waste and circular economy concepts at the community level.
2. Establish and strengthen local circular supply chains as businesses transition to circular practices.
3. Align the objectives of future projects with the sustainability agenda and roadmaps of different government agencies such as plans of the Department of Trade and Industry (DTI) and DENR's National Plan of Action on Marine Litter (Strategy 2).
4. Communicate circular economy initiatives in the local language and context.
5. Local government units (LGUs) should provide incentives for local businesses applying circular business models.
6. Utilize technology to offer alternative packaging materials to MSMEs.

ALBAO, Dave | Executive Director, PRRCFI

We do not accept a future where there could be more plastic waste than fish by weight in the ocean, so we are committed to innovate with the community in reducing marine litter. In implementing our pilot project, we have witnessed how our partners and stakeholders collaborated and worked together in developing business models that could support MSMEs in moving away from single-use plastic products and packaging.

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Rethinking Plastics
Circular Economy Solutions to Marine Litter

Iloilo City
Bacolod City

Development of Voluntary Guidelines on Sustainable Packaging towards Reduction of Marine Litter

Partner

Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI)

Problem

Filipinos use roughly 60 billion sachets and 17.5 billion shopping bags per year. However, not all these single-use plastic products are managed properly or effectively at the end of their life cycle. As such, alternatives and sustainable packaging are still needed but clear guidance and standards are still missing.

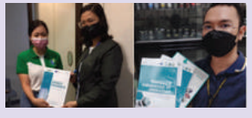
Contribution by Rethinking Plastics

Green Choice Philippines (GCP) Criteria for Sustainable Packaging + Private Sector Roadmap on Sustainable Packaging Towards Marine Waste Reduction + Educational and Policy campaign on sustainable consumption and production (SCP)

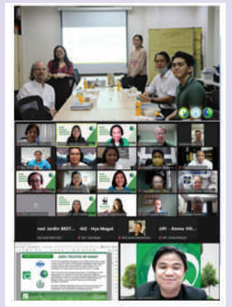
Solution

- Certify Products for sustainable packaging to encourange reduce, reuse, recyclability
- Shifting to sustainable alternatives than single-use plastics

Results



- Developed an Ecolabelling criteria for packaging products under the National Ecolabelling Programme - Green Choice Philippines (NELP-GCP) through a technical multi stakeholder process.
  - Establish a technical working group composed of representatives from the government, private sector, and civil society
  - The Eco-labelling criteria was approved by the national ecolabelling board of the Philippines. The criteria serves as a voluntary guideline for determining more environmental packaging options through a set of quality and environmental requirements and their verification methods.
  - Three companies applied for NELP-GCP pilot certification on packaging products criteria, namely Happy Green Packaging (HPG), Sustainable and Compostable Horizons Industry Group Incorporated (SACHI), and Zero Plastic Philippines. The applicants range from traditional packaging companies catering to multinationals, composable packaging, and soluble packaging.
- Developed a private sector roadmap that serves as a strategic document for adopting sustainable packaging in the operations of the retail and trade sector in the Philippines



Based on the research, the pilot project developed a market readiness study, a comparative study of existing international and local standards, policies and best practices related to sustainable packaging, policy recommendations for LGUs in support to sustainability initiatives related to solid waste management and packaging, and a module for SCP awareness raising focused on cultivating green consumerism.

Awareness Raising and Communications

- Designed and created over 80 materials including videos, infographics, social media posts for Information, Education, and Communication campaigns to engage relevant governement and private sectors, businesses, packaging supplies and manufacturers, and consumers.
- The social media reach of the awareness campaigns reached 1,730 people.
- The awareness seminars intoduced concepts of sustainable consumption and production (SCP), and shared SCP tools and practices promoting green consumerism to increase the appreciation of attendees on the opportunities gearing towards responsible and green purchasing. It also seminar introduced ecolabelling, communicated its importance and market advantages, shared the NELP-GCP application process, and presented opportunities to engage in ecolabelling.

Recommendation

1. Engage the industry players and businesses to adapt the private sector roadmap.
2. Expand information, education, and communication campaigns and utilize social media platforms to engage more stakeholders and consumers.
3. The national government and LGUs should work together to integrate ecolabelling criteria into policies, in support of green public procurement and SCP, to fully maximize its potential to support the promotion of sustainably produced packaging products in the country.

ALVAREZ, June | Executive Director PCEPSDI

PCEPSDI pursued to implement the Sustainable Packaging Project with the vision to contribute to marine litter reduction by providing upstream and market-based solutions for the industry, such as the ecolabelling criteria for packaging products. The project has also produced salient knowledge products that can assist the stakeholders and the industry in advancing sustainable consumption and production to contribute to the overall drive of reducing marine litter.

Communications and Awareness Raising

Problem

The amount of SUPs and plastics items is rapidly increasing in the Philippines due to rapid urbanization, economic development, and changing consumption and production patterns. As such, there is a lack of awareness among public authorities and consumers about sustainable consumption and production of plastic its impact on the environment due to increased littering.

Contribution by Rethinking Plastics

1. Online campaign and social media outreach
2. Communication materials
3. Community Intervention

Creative Communication Materials

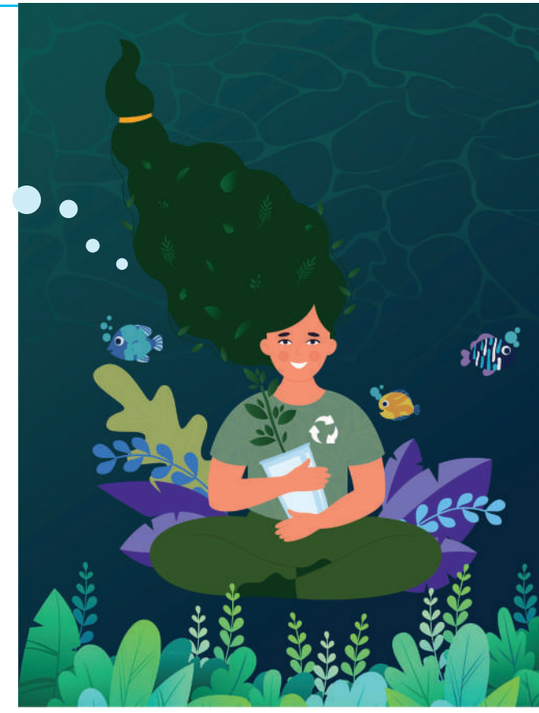
Online Campaign through 'Eca', a young community leader, provided audiences with a model relatable character that served as a guide and inspiration to reduce the consumption of plastic.

Communication materials (Infographics and Videos)

Plastics are not the same. They should be treated differently from each other as well, even until disposal. I learned that beauty can be found anywhere if we create it, even if "it is trash".

Sometimes, all we need is to help other people see this beauty as well as its new purpose. It also pays when we seek alternatives to replace things we have gotten used to.

So come join our community so we can achieve our goal!



Community Engagement

The campaign piloted a face-to-face event called #HuwagItaponAngBukas with a seaside community in Balayan. This event highlighted the impacts of plastic pollution and what actions people can take and also informed about recycling plastics and opportunities for livelihood.

Sets of programs were also implemented such as the "Listen and Learn" program where the project relayed information and rose awareness for the community on the future of plastic consumption. Additionally, the "Awareness & Action" program implemented upcycling workshops and house-to-house interventions in an effort to directly teach people the steps to reduce their plastic waste through the use of vital assets like infographics.

Iloilo City

Reduction of Plastic Wastes in Iloilo City through Sustainable Consumption, Production, and Waste Management of Plastics and Its Alternatives

RESULTS OF SOLID WASTE MANAGEMENT ACTIVITIES

IN NUMBERS

- **5** eco-solution models were designed to reduce and manage public waste. Eco-solution models are solid waste management programs designed based on the geographic locations, needs, capacity, and available resources of a barangay. Eco-solution models were designed for barangays with Materials Recovery Facilities (MRF), without MRFs, near riverine systems, and with public markets
- **13** barangays were provided with equipment and tools for waste collection.
- **25** Information, Education, and Communication materials were developed (including campaign materials, tarpaulins, AVPs, jingles in the local language).

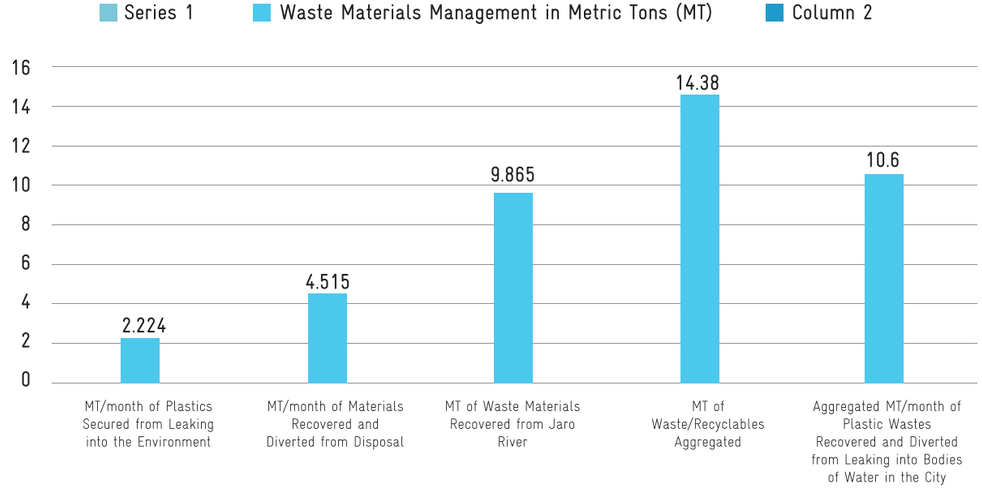
IN SUPPORT STRUCTURE

- Improved organizational and communication structure of City Environment and Natural Resources Office (CENRO), established linkages between junk shops and barangay Materials Recovery Facility (MRF) operations, and strengthened coordination between CENRO, the City's General Services Office (GSO), and other departments in the Iloilo City government that support Solid Waste Management initiatives.
- Strengthened linkages between recycling chain actors by having monitoring and environmental management systems. The Junkshop sector is also now represented in the city's Solid Waste Management board.

Recommendation

1. Mechanisms for monitoring and evaluating the city's solid waste management system should be improved to ensure the sustainability of the development initiatives.
2. The city's 10-year SWM plan should be updated to reflect the current changes in the environment, the results of the baseline study, and the eco-solution models developed and tested under the pilot project.
3. The successful eco-solution models should have a city-wide implementation. Implementation could also be scaled up in other areas to include and increase the participation of other stakeholders.

Results



Programmatic Reach

48,065	7,756	315	54	1,250	25
Population are Participating in a SWM Program	Households that are Participating in a SWM Program	Business Establishments that are Participating in a SWM Program	People Trained in SWM	Barangay Officials Reached	Entities with Increased Capacity to Assess or Address SWM

O' PENETRANTE, Mary | University Research Center, Central Philippine University

"There is an increased awareness on SWM and circular economy of the people in pilot communities, more people are practicing waste reduction, segregation, reuse, and recycle, more economic participation from the marginalized groups (unemployed, less educated men and women), higher waste material recovery along the recycling chain; all of these resulted to lesser wastes that goes to the sanitary landfill of the city."

Iloilo City

Reduction of Plastic Wastes in Iloilo City through Sustainable Consumption, Production, and Waste Management of Plastics and Its Alternatives

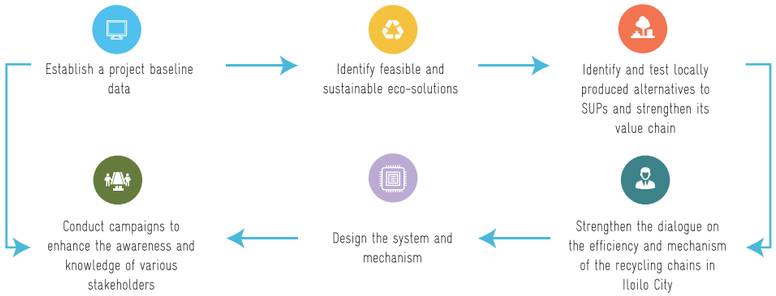
Partner

Central Philippine University

Problem

Iloilo City experienced inefficient garbage collection in areas not reachable by the city's garbage collection service, resulting in an increase of plastic products, especially single use plastics (SUPs), being disposed of on land and bodies of water

Contribution by Rethinking Plastics



Solution

Tested and Designed Eco-solutions Models to improve Solid Waste Management + Support of Solid Waste Management Policies and Structures to improve Solid Waste Management + Alternative to SUPs

Baseline Study Results

- **314,461** kilograms of wastes are collected daily by the Iloilo City government.
- About **46%** of these wastes are biodegradable, **39%** are residual, **10%** are recyclable, and **5%** are special wastes.
- **10** tons/week of biodegradable are processed wastes in the sanitary landfill (SLF) using a motorized composter.
- Recyclable wastes like glass, paper and other forms of plastics collected by waste workers are sold to junk shops (there are **17** of them) that serve as partners of the city government in the recovery of recyclable materials.
- At least **34%** of the total waste collected everyday by the city government goes to the city's **3.3** hectares sanitary landfill.
- There is an increasing volume of plastic wastes generated every day due to the increased usage of plastic products in commercial establishments and households, especially during these times of the Covid-19 pandemic.
- Not all areas of Iloilo city can be reached for garbage collection due to limited availability of garbage trucks and narrow roads in densely populated shanty areas.

CENRO Strategic Planning Workshop on Solid Waste Management

Iloilo City Rethinking Plastics Project Culminating Event

Meeting to Plan for the Clean-Up of Jaro and La Paz Rivers

Batangas Port

Ship Waste Management in Philippine Ports

Partner

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

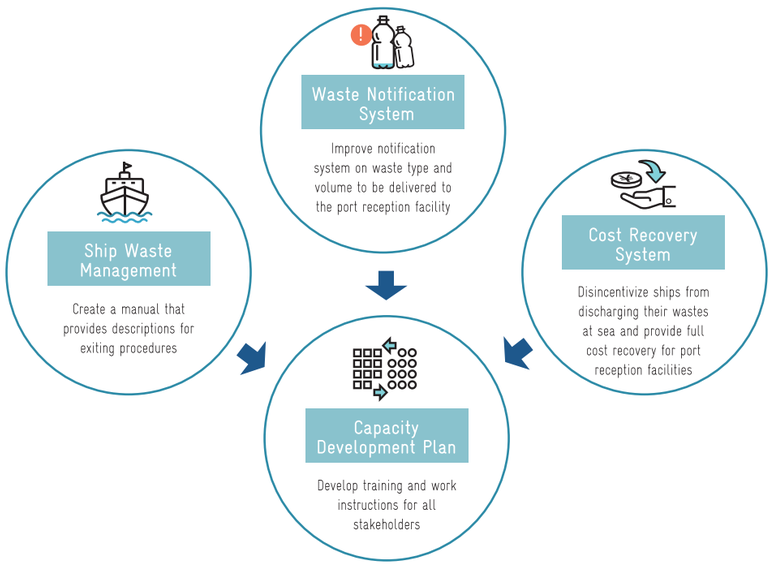
Problem

Shipping accounts for 20% of global discharges of marine plastic litter. An annual increase of 3.5% in maritime traffic is projected in the years that would result in greater discharges. Despite the profusion of national legislation and the Philippines being a signatory of the International Convention for the Prevention of Pollution from Ships (MARPOL), the implementation and enforcement to manage ship waste lags behind the scale of the current and potential problems caused by marine debris.

Contribution by Rethinking Plastics

Ship Waste Management Manual (SWMM) + Recommendations for a Waste Notification System (WNS) inegrated into i-PORTS + Recommendations for an incentivicing Cost Recovery Systems (CRS) + Legal and Policy Assessment + Training and Capacity Development

Solution



Observations

Upon inspection and assessment of existing waste collection practices in Batangas port, it was observed that...

- Waste handlers from the vessels did not use Personal Protective Equipment (PPE) such as gloves and aprons in the collection and transportation of wastes.
- Trash bins in the port were properly labeled (others are even color-coded with photos of sample wastes). However, the garbage found inside was not properly segregated.

Results

Training and Capacity Development

120 port personnel and representatives from shore reception facility providers, terminal operators, shipping lines, and key stakeholders participated in the Seminar on SWM, WNS, and CRS.

SWMM

The SWMM covered the waste notification process, waste collection process, waste types accepted at Batangas Port, waste reception fees, health and safety protocols for safe handling, roles and responsibilities in relation to ship waste management, and the standard documents or forms.

Improving Waste Management / Collection

Trash bins were established in several areas in the port where passenger ferries could place their garbage every time they made a call in the port.

WNS

The optimization of the online advance WNS through a web-based application called Internet-based Port Operations and Receipting for Terminal System (iPORTS). These iPORTS enabled ships to send notifications to port facilities through SMS or email.

CRS

The current CRS system was assessed and recommendations were provided to encourage operators to contribute to the waste handling system.

Legal and Policy Assessment

The legal and policy assessment report highlighted that the Philippines is compliant to the requirements of MARPOL 73/78 convention. It puts forward recommendations for improving the current regulatory framework for ship waste management in the country.

Recommendation

1. The cost recovery principle should be based on indirect fees in order to incentivize waste delivery from ships.
2. Future pilot sites should consider other ports outside of Luzon, such as those in Visayas and Mindanao, for capacity development and training activities as they have lesser opportunities for technical support.
3. Topics of technologies for waste management should be included during training seminars.
4. Relevant maritime agencies such as the PPA, MARINA, and PCG should strengthen inter-agency coordination to discuss policies, regulations, and certain requirements of each respective agency's involvement in ship waste management.

BRESEMANN, Nadine | Head of Maritime Transport, PEMSEA

"Good communication between port staff and ship crew about ship waste and simple process operations at the port will help reduce plastic waste in our oceans. We are passionate about working with the Philippine Ports Authority to introduce new online waste notification systems, shipping information, and awareness training for a structural change in waste handling by ships at ports, thus making an important contribution to ocean and coastal protection in Asia."

PADAYAO, Daisy | Technical Assistant for Project Development, PEMSEA

"The implementation of the project particularly the training and capacity development component has created deeper understanding among relevant stakeholders on the aspect of ship waste management. The project was able to forge a better partnership with the Philippine Ports Authority, which has the authority to implement and sustain the project's outputs and recommendations."

Extended Producer Responsibility (EPR)

Problem

Worldwide, about 25-40% of plastic consumption are single-use packaging and about 60-90% of marine litter consists of plastics. In the Philippines, waste management systems and the quality and adherence to environmental standards for plastic recycling needs improvement as parts of packaging waste still enters landfills/dumpsites and the environment–resulting in marine litter. Schemes to support plastic reduction, improve recycling efforts, and increase financing for waste management are necessary.

Contribution by Rethinking Plastics

1. Report on an inventory of options for EPR schemes for packaging waste which can be applied to the Philippines
   a. Survey and analysis of EPR legislation and measures in select countries
   b. Discussed the current legal, policy, and institutional landscape on waste management in the Philippines, including the recently enacted EPR law.
   c. Discussed enabling conditions for EPR success
   b. Presents recommended options for EPR schemes for different types of plastic packaging
2. EPR Options for Packaging in the Philippines: Multi-Stakeholder Dialogue

   The online dialogue focused on the presentation of an inventory of options for EPR schemes for packaging which can be applied in the country and discussions on the newly enacted EPR law. It featured a panel discussion composed of EPR experts from the academe and international and local organizations. In general, the enactment of the EPR law provided a good framework but issues and concerns on how to operationalize the law should be answered by its implementing rules and regulations (IRR). The issues raised in the plenary include incentive mechanisms, EPR fees, managing the EPR funds, transition plan for phasing out of products, and the effective implementation of the law given the situation of waste segregation in the country. There was also a discussion on cross-border wastes, and how it can be addressed in the context of EPR.

Solution

Developed EPR options for packaging in the Philippines and provided evidence-based policy recommendations for the implementation of an EPR system for plastic packaging.

EPR ACT OF 2022

In the Philippines, there has been an increase in waste management laws and policies–including legislation on circular economy concepts such as the EPR bill. The EPR Act of 2022 lapsed into law in July 22, 2022. The law defines EPR as "...the environmental policy approach and practice that requires producers to be environmentally responsible throughout the lifecycle of a product, especially its post-consumer or end-of-life stage." It provides for the development of a National Framework for EPR. It outlines mandatory measures for obliged enterprises which include collection and diversion targets; types of plastic packaging covered; compliance periods; and audits. It also identifies fiscal and non-fiscal incentives, as well as penalties for non-compliance.

OPPORTUNITIES

- The establishment of the EPR under the new law provides for the policy and institutional "backbone" or foundation for an EPR system. The institutional framework provides for the possible clear delineation of responsibilities of government instrumentalities in an EPR scheme.
- There is an opportunity to increase awareness and understanding of EPR among various stakeholders. This could lead to different solutions being explored and offered- ranging from new and innovative technologies to community-based schemes and programs.
- There is an increasing private sector support which can be harnessed towards EPR success. Industry associations, such as the Philippine Alliance for Recycling and Materials Sustainability (PARMS) and Philippine Plastics Industry Association (PPIA) have embarked on voluntary actions on recycling and reuse. For example, PARMS worked together with the fast-moving consumer goods sector to craft a strategy (Zero Waste to Nature, Ambisyon 2030) geared toward managing plastic and packaging waste. It has also begun building a multi-million large-scale plastics recycling facility, where its member companies can divert their plastic waste to be recycled into plastic blocks and eco-bricks.

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Implemented by giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
EXPERTISE FRANCE
Rethinking Plastics Circular Economy Solutions to Marine Litter

Recommendation

Within the context of the mandatory EPR law, several critical enabling conditions need to be met before rolling-out the proposed schemes, to ensure the success of EPR implementation in the Philippines.

ENABLING CONDITIONS

1. Strengthening downstream measures and ensuring a fully functioning waste management system
   a. Strategic and long-term efforts that are consistently implemented – ranging from full implementation of RA 9003, participation of all relevant stakeholders, and establishing up-to-date baselines for all components of the waste management system
   b. Clear guidance and funded support for local government units (LGUs)
2. Support a paradigm shift by instituting and enacting upstream measures
   a. Product and supply chain redesign
   b. Research and development for the production of alternatives
   c. Improved use of materials
   d. Measures to support the shift in consumer preferences and behavior
3. Suitably defined stakeholder roles and responsibilities
   a. Provide clear standards and guidelines for PROs, or obliged companies for compliance
   b. Provide clarity on government roles and responsibilities

CROSS-CUTTING ACTIONS:

- Involve informal waste sector and ensure their integration into existing waste management systems
- Expand consumer information measures including strengthening eco-labelling and providing progressive targets for producers
- Conduct extensive study on:
  - Determining taxes, EPR fees, and incnetives
  - Appropriate use of bans and phaseouts
  - Alignment of efforts with product redesign
  - Appropriate use of bans and phaseouts

BUETA, Grip | EPR Expert

"EPR is one of the many tools in the waste management arsenal which policymakers and stakeholders can use to achieve a circular economy. By placing more responsibility on producers for the waste impact of their products, Filipino consumers can now find more ways to live more sustainably and responsibly through EPR schemes, which eventually should help reduce waste leakage into the environment."