



MID-TERM PROJECT PROGRESS REPORT



Combatting Marine Plastic Litter in Cambodia [15th January 2021 – 31st July-2022]

United Nations Development Programme (UNDP)

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Implementing Partner: National Council for Sustainable Development (NCSD)

Responsible parties: Ministry of Environment (MoE); Ministry of Interior (MoI)

UNDP Country Programme Outcome: UNDAF outcome 3: By 2023, women and men in Cambodia, in particular the marginalized and vulnerable, live in a safer, healthier, more secure, and ecologically balanced environment with improved livelihoods, and are resilient to natural and climate change-related trends and shocks.

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Acronyms

4Rs	Refuse, Reduce, Reuse, and Recycle
AWP	Annual Work Plan
BESD	Building an Enabling Environment for Sustainable Development
CE	Circular Economy
CPAP	Country Programme Action Plan
DGE	Department of Green Economy
EPR	Extended Producer Responsibility
GDEKI	General Directorate of Environmental Knowledge and Information
GDEP	General Directorate of Environmental Protection
IP	Implementing Partner
KK	Koh Kong province
KRECA	Koh Rong Environmental Conservation Association
LoA	Letter of Agreement
MoE	Ministry of Environment
MoEYS	Ministry of Education, Youth and Sports
MoI	Ministry of Interior
MoU	Memorandum of Understanding
MWP	Multiyear Work Plan
NCSD	National Council for Sustainable Development
NGO	Non-Governmental Organization
NIM	National Implementation Modality
PDoE	Provincial Department of Environment
PMU	Project Management Unit
PNH	Phnom Penh
Q1	Quarter 1
Q2	Quarter 2
Q3	Quarter 3
PDoE	Provincial Department of Environment
RGC	Royal Government of Cambodia
RP	Responsible Party
SCP	Sustainable consumption and production
SHV	Preah Sihanouk province
SRP	Siem Reap province
SWM	Solid waste management
ToR	Terms of Reference
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme

Executive Summary

This mid-term progress report documents key development results of the combatting marine plastic litter (marine plastic) project, linkages between outputs and outcomes, their impacts on achieving the goals of the project, its financial status, and challenges and opportunities.

Since the inception in January 2021, the project has been implemented by the National Council for Sustainable Development (NCSD) with funding support from the Government of Japan, and technical and financial support from the United Nations Development Programme (UNDP).

The project has sought to prevent and minimize plastic pollution on land and in the ocean through promotion of a 4R (Refuse, Reduce, Reuse, and Recycle) framework. Target provinces include Siem Reap (SRP), Sihanoukville (SHV), Phnom Penh (PNH), Kep, Kampot and Koh Kong. The project has sought to attain the following five main outputs:

1. **Policy and regulation:** Key enabling policies and regulations developed and implemented to promote 4Rs
2. **Awareness raising:** Improved awareness about the plastic crisis and its solutions among citizens and the private sector through environmental education and awareness raising
3. **Subnational implementation:** Plastic waste reduced in target cities through education, private sector-led best practices and innovation
4. **Business development:** Priority business models for plastic recycling and alternatives supported and tested
5. **Knowledge sharing:** Best practices disseminated and shared

The below highlights key progress and results made during the period from January 2021 to July 2022.

1. **Policy and regulation:** The project has formulated and drafted key enabling policies and regulations integral to inducing behaviour changes towards adopting the 4Rs. The project supported the Ministry of Environment (MoE) for the development of a National Circular Economy Strategy and Action Plan (2021-2035). This strategy set the overall vision and strategies for Cambodia to transition from a linear to a circular economy. As one of priority circular economy measures, the project has supported the development of a draft Sub-Decree on Plastic Management to prevent and minimize plastic pollution. Among others, the sub decree proposes new measures on single-use plastic products, Extended Producer Responsibility (EPR), recycling and alternatives. The project also drafted an EPR Roadmap for Cambodia with the aim to mobilise the private sector's support for effective collection and recycling of plastic waste. The project further supported the MoE to develop a policy matrix on alternatives to plastic and recycling together with the Ministry of Economy and Finance (MEF), and the Ministry of Industry, Science, Technology, and Innovation (MISTI).
2. **Awareness raising:** The effectiveness of new regulations depends on improved awareness among stakeholders. Hence, the project supported a wide range of awareness raising efforts to make all stakeholders aware of the plastic crisis and its solutions. The project launched two websites (1: Circular Economy Private Sector Platform and 2: Plastic

Management) to disseminate updates. A total of 115 videos were produced with engagement from influencers, celebrities, and monks to reach over 1 million people across the country including the provinces of SRP, SHV, PNH, Kep, and Kampot. “60-Day Carry for Saving” awareness raising campaign was implemented by the Royal University of Phnom Penh to change behaviours on plastic consumption among university students across Phnom Penh. Furthermore, the project launched an innovation challenge called #beatplastic campaign to select three winners with the aim to test most effective modes of campaigns in changing “behaviours” towards adopting the 4Rs.

- 3. Subnational implementation:** At the beginning of 2021, the project completed rapid research in PNH, SRP, SHV and KEP to assess the volume, types, and sources of plastic waste, and the hotspots to develop a detail workplan for each target province. The COVID related restrictions caused delays in subnational activities in 2021. Yet soon after restrictions being lifted in 2022, the target provinces began implementing various activities, including clean-up and outreach activities and installation of equipment and bins to collect plastic wastes. A total of 27 schools received water filtrations systems which resulted in the significant reduction of PET bottles used at schools (1.6 ton per day). The project also collaborated with Koh Rong Environmental Conservation Association (KRECA) to tackle plastic pollution in the Koh Rong Island.
- 4. Business development:** Provision of alternatives to plastics, operationalising of EPR and upgrading plastic recycling capacity are among high priorities for Cambodia in addressing plastic challenges. The project ran another innovation challenge for sustainable e-commerce to solicit innovative ideas for the wider adoption of alternatives. To foster plastic recycling activities in Cambodia, the project developed a draft report on plastic recycling to identify possible types of plastic products, and technologies applicable for Cambodia. Recommendations for enabling actions and measures have been incorporated into a draft sub decree and the design of a EPR pilot planned in Phnom Penh. A “Hotel Manual” was developed for the hospitality sector to reduce the plastic use and generation of plastic waste. The project will further work with hotel associations in SRP, SHV and PNP to adopt recommended measures to adopt the 4Rs.
- 5. Knowledge sharing:** The project shared Cambodia’s ongoing efforts to tackle plastic pollution through the UNDP webinar “Let’s Talk Plastics”. The project organized a second national forum “Identifying Priority Actions Against Plastic Pollution in Cambodia” in Dec 2021 to share latest practices related to plastic management and to identify priority joint actions against the plastic crisis. A series of project promotional materials were produced including a project video, a project brochure, a poster, and six social media platforms (Facebook, TikTok, Twitter, LinkedIn, Instagram, and YouTube) were created for information dissemination, increased project visibility and achieving project’s objectives.

Despite the implementation challenges caused primarily by the prolonged Covid-19 pandemic especially for the output 3 activities due to restrictions on travels and meetings, the project team at both national and sub-national levels has undertaken proactive measures to adjust strategies and revise project work plans and strategies in response to changing circumstances and requirements. As a result, many of key milestones have been delivered with notable achievements or are now back on track for full delivery.

Implementation progress

Output 1: Key enabling policies and regulations developed and implemented to promote 4Rs and the use of multi-use plastic, recycling, and plastic alternatives

The project has formulated and drafted key enabling policies and regulations integral to inducing behaviour changes towards adopting the 4Rs. These included a National Circular Economy Strategy and Action Plan (2021-2035), a draft Sub-Decree on Plastic Management, and a draft EPR Roadmap for Cambodia.

Official launch of the Circular Economy (CE) National Strategy and Action Plan (2021-2035):

On 28 June 2021, together with the project Building an Enabling Environment for Sustainable Development (BESD), the project supported the MoE to develop and launch the CE Strategy and Action Plan. More than 100 representatives from line government agencies, development partners, the private sector, NGOs, and academia attended. The CE strategy outlines the vision, mission, strategies, and roadmap to enable Cambodia to transition from a linear to a circular economy. Specific priority measures related to plastic management include improving product designs, minimization of single-use plastic (SUP) production and use, sustainable consumption, reuse and repair, recycling, and energy recovery.



Development of a draft sub-decree on plastic management: The key objective of this sub-decree is to manage and reduce the use of plastic products, properly manage plastic waste, and prevent and minimize plastic waste pollution on land and waterways. Notable new measures include those related to EPR, green procurement, eco-labelling and the top 10 single-use plastic items (aligning with the World Bank’s plastic roadmap). The first MoE review meeting was held on 16 and 17 June 2022 to review the content including single-use plastic (SUP) regulatory measures, plastic recycling and EPR. Comments have been incorporated for the next draft sub-decree to seek further comments during a stakeholder consultation meeting planned in October 2022.

Development of a report on the Extended Producer Responsibility (EPR) Roadmap for Cambodia: Delivered in November 2021, the report outlines key objectives, actors, and instruments of EPR and included an initially proposed EPR roadmap to transition from a “Voluntary EPR” to a “Mandatory EPR” framework in Cambodia. The project conducted a study on the scope of the market and production chain through interviews with companies producing and importing recycled plastic.

Development of policy matrix: To promote biodegradable alternatives and plastic recycling, the project supported the MoE to develop a draft policy matrix together with the Ministry of Economy and Finance (MEF) and MISTI.

Output 2: Improved awareness about the plastic crisis and its solutions among citizens and the private sector through environmental education and awareness-raising activities

The effectiveness of new regulations further depends on improved awareness among stakeholders. The project therefore supported a wide range of awareness raising efforts to make all stakeholders aware of the plastic crisis and its solutions as follows.

Websites: Two websites (Plastic Management and CE Private Sector platform) were officially released in June 2022. In addition, another website of project partner called “Re-Five” was developed to share plastic-related educational materials.

<ul style="list-style-type: none"> The Plastic Management website (https://combattingmarineplastic.moe.gov.kh) contains information on waste and plastic challenges, MoE initiatives to tackle plastic waste, policies and regulations, relevant reports, latest news and events, and educational and awareness-raising audio visual materials produced by the project. It also features a map of existing plastic recycling depots. Plastic data will be included once available. 	
<ul style="list-style-type: none"> The CE Private Sector platform (https://ce.moe.gov.kh/) provides information on environmentally friendly CE practices with concrete examples (20 CE posters in both Khmer and English languages were posted) that businesses can adopt. 	
<ul style="list-style-type: none"> The Re-Five website (www.refivecambodia.com) provides information on Re-Five initiatives. It promotes the “60-Day Carry for Saving” campaign by facilitating easy identification of partner café locations with a map of partner cafés and featuring other plastic-related educational material. 	

Awareness Raising Videos: The project disseminated a total of 115 videos and posted 131 key messages related to marine plastic through its social media channels. The awareness-raising videos were produced by different partners and stakeholders on plastic management and based on contexts of partner and location of project implementation (PNH, Kep, SHV, SRP and Kampot). Below are a few videos produced by the project team and partners and uploaded in social platforms:

<ul style="list-style-type: none"> Music video by Princess Jenna Norodom: Highlighting the negative consequences that plastic has on the environment, this video asked everyone to Refuse, Reduce, Reuse and Recycle. 	
<ul style="list-style-type: none"> Animated video* about the lifecycle of plastic narrated by three celebrities: Sopheak Kosoma, VannDa, and Juvie Lin. Explaining what happens after plastic items are thrown away, and the impacts they have on the environment, this video explained to consumers how they can help address the problem through the 4Rs. 	

Examples of videos produced by GDEKI



PNH: Plastic free packaging

A commercial spot promoting plastic free food packaging among restaurants by showing the innovative ways of one restaurant that uses only natural materials and cardboard boxes.



Kep: What a happy trip

A short video promoting plastic free lifestyle. It features a family going on a vacation in Kep using only their refillable drinking bottles and their own food containers even when buying food from the wet market.



SHV: Combatting marine plastic in Sihanoukville

A short video explaining the challenges in solid waste management and its consequences in Sihanoukville province, opinions of citizen on waste separation, and beach clean-up by the municipality



Plastic impact on human health

A short and simple video of how using plastic products in hot beverage can be harmful for health.



SRP: Kulen National Park is not a rubbish bin

A short video showing the importance of Kulen mountain as a tourism site and source of water, explaining what can be done to keep it plastic free.



Kampot: Clean Kampot starts with us

A short video introducing alternatives to plastic in daily life and calling for public participation in reducing single-use plastic.



Plastic reduction in the garment sector

Shot in Meng Da Footwear Industrial Co., Ltd., the video showcases the factory's initiatives to reduce plastic and keep their working environment clean and healthy



TikTok hashtag promotion

A short video clip to call for public action through their use of #BeatPlastic hashtag in their social media posts and participate in daily reduction of plastic consumption.

Influential monk engagement: The project worked with influential monks to reach a different group of target audience, i.e., the adult population who find the talks from venerable monks resonate with them better. The project produced two videos linking Buddhist belief with clean environment, encouraging the public to love our environment and cut down on plastic use.



TikTok influencer engagement: The project also actively used TikTok, a very popular media tool among youth in Cambodia to spread more awareness-raising messages. The project collaborated with Ms. Jinny Jinny, one of the TikTok Influencers to produce a short [video on “Plastic reduction during holiday trips”](#). She showcased how Styrofoam boxes can be replaced by lotus leaves and how we should always carry a refillable water bottle.



Below is a summary information about project’s social media platform reached out to public:

Platform	Like/Follower	Impression	Page visits/interaction	Gender	
				Male	Female
Facebook	1131	851,470	21022	62.8%	35.7%
TikTok	1,822	472,10	4609	43%	57%
Instagram	35	884	20	42.2%	51.1%
Twitter	38	5,584	3,123	N/A	N/A
Website	Visitor 278	Unique Viewers 207	Page views 683		

As of 30 August 2022, the project has reached over 1,089,164 people with over 100 thousand social media engagements¹.

Educational and promotional materials: The project designed two posters, a plastic recycling craft book, promotional items such as t-shirts, reusable water bottles, eco-bags, stickers, and 5R (refuse, reduce, reuse, recycle and remind) signboards for school education and outreach activities. The materials were printed and delivered to target provinces included: 670 posters, 20 plastic free zone signboards, 530 plastic recycling craft books, 651 eco-bags, 610 reusable water bottles, and 530 storybooks on plastic impact for young children.



Innovation Challenge to “#BeatPlastic”: After the launch in December 2021, this challenge selected three winners to test innovative campaign ideas not only to raise awareness but also to change the behaviours of the target stakeholders towards adopting the 4Rs.

1. **STEM Education Organization for Cambodia (STEMEOC)** proposes a “Join Eco-Heroes: Plastic Knights Chapter” campaign. The knights who join this chapter are to submit a pledge to change one of daily habits to mitigate plastic pollution through 1) reduction of single-use plastic consumption; 2) recruitment of at least 1,500 Eco-Knights and 3) promotion of changes of daily habits of the youth when dealing with plastic pollutants.
2. **Dr. Kit MAGELLAN (Innovator)** proposes a “A Citizen Science Approach to Plastic Free Fish” campaign to apply experimental, social science, and analytical techniques in both physical and online formats. Dr. kit plans to use three innovative approaches to address plastic pollution in Cambodia: 1) real time data and videos of plastic impacts on commercially important native fish species to generate interest and provide Cambodia-specific information; 2) a Citizen Science approach to encourage maximum engagement from stakeholders; and 3) robust statistical analysis to assess effectiveness and provide data of international relevance.

¹ The number included only the Facebook pages of MoE, UNDP Cambodia and the Marine Plastic project. All other social media platforms newly created in this quarter and the campaign implemented by DMC/RUPP in 2021 was not counted.

3. **Phare Performing Social Enterprise CO. Ltd** proposes a Behavioural Change Campaign by using theatre with puppets and digital media (videos as mediums) to build awareness and help Cambodian people change their behaviours on plastic usage in their everyday life. PPSE will employ the strong experiences and expertise of artists to bring stories to life on building awareness and trigger behavioural actions on #BeatThePlastic.

'60-Day Carry for Saving' campaign, led by Royal University of Phnom Penh (RUPP) under the 'Re-Five' initiative: In 2021, a "60-Day Carry for Saving" campaign was conducted by the Department of Media and Communication of RUPP with the goal of changing plastic consumption behaviours among university students across the capital, PNH. Through the [Re-Five digital campaign](#), the initiative was promoted through a website and across social media – including Facebook, Instagram and TikTok – and through a photo competition, "The Green Environment I Dream". The campaign was also featured by ten media outlets. The initiative outreached a total of 93,081 people (FB) and 13,829 people (Instagram).

Certification ceremony for environment best performers: To incentivize best practices for managing plastic waste, an annual certification ceremony was organized in 24 Nov 2021 and total of 217 certificates and 16 letters of appreciation were awarded to environmentally friendly individuals, pagodas, schools, NGOs, municipalities, and businesses.

Teacher training on plastic education: Project partners conducted teacher trainings in target provinces to further teach their students. With the participation of 157 teachers (56 female) from five schools of each province, the training provided education and materials on solid waste management to teach their students

Campus quiz and environmental club organization: The GDEKI team conducted campus quizzes at the Royal University of Agriculture and Institute of Technology of Cambodia (ITC) in 2021 to raise university students' awareness of plastic pollution. These events subsequently led to the formation of environmental clubs to help them share their knowledge with friends, families and their communities, as well as leading community environmental activities. Thus far, RUA environmental club was established with 25 members and ITC environmental club is under member selection process.



Plastic management in Borey: The project organized an event at Borey Vimean Phnom Penh Mongkul Ratanak project 9 to raise awareness about plastic pollution and the need for better plastic waste management. The event was attended by over 150 people from UNDP, officials from the Department of Solid Waste Management, representatives from the Provincial Department of Environment (PDoE), local authorities, Borey and other surrounding residents, and two private companies for alternatives and refilling products.



Output 3: Plastic waste reduced in target provinces through education and private sector-led best practices and innovations

Under this output 3, the project collaborated with different partners to implement and monitor the project's activities and to ensure they reach the intended targets.

The COVID related restrictions caused delays in subnational activities in 2021. Yet soon after restrictions being lifted in 2022, the target provinces as well as KRECA in Koh Rong began implementing various activities, including clean-up and outreach activities and installation of equipment to collect plastic wastes. A total of 27 schools received water filtration systems which resulted in the significant reduction of PET bottles used at target schools.

Scoping studies in four target provinces (SHV, SRP, PNH and Kep): The project conducted scoping studies to assess the volume, types, sources and major generators and hotspots of plastic waste, and target areas and stakeholders. The results of the studies informed the project to identify the following sets of priority activities for plastic management and to develop their respective work plans for target provinces

1. Government offices to lead by example by reducing the use of single-use plastics
2. Reduction of the use of single-use plastics among schools through improving environmental education and providing water filtration systems (to avoid the use of PET bottles) and waste bins
3. Reduction of the use of single-use plastics among major industries such as the hospitality sector and Special Economic Zones (in the case of SHV)
4. Clean-up and outreach activities targeting at hotspots and local communities to raise awareness and prevent plastic pollution

Distribution of water filtration systems to schools and waste bins in target provinces:

The project selected a total of 80 schools for distribution of water filtration systems and waste bins. Out of this, 161 are for Phnom Penh (PNH), 21 for Preah Sihanouk (SHV), 5 for Kep, 10 for Kampot, 18 for Siem Reap (SRP), 8 for Koh Kong (KK) and 2 for other provinces.

In 2022, 27 schools (with a total of 15,810 students) received water filtration systems at PNH (3), SHV (12), Kep (5) and Kampot (7) with the estimated volume of reduction of PET bottles: 1.6 tons per day.

To further prevent plastic waste from entering the waterways including rivers and ocean, the project provided waste trapping tools and collection equipment such as 160 waste bins to these provinces.





Ministry of Interior (Mol) implementation: Mol supports the project in facilitating the execution at sub-national level and in monitoring the performance on the ground. In 2022 Mol started to monitor the project implementation in target provinces (SHV, Kampot and Kep) to discuss about the status of waste management in each province and visited 2 schools where water filtration systems were provided. Mol also organized a Dissemination Workshop on Solid Waste Management (sub-degree 113) in Siem Reap province.



Siem Reap Province (SRP) implementation: SRP PDoE identified 61 locations of recycling depots, 8 plastic recycling locations, and 55 locations of recycling/junk shops in all 10 districts. SRP distributed 30 educational signs, 20 waste bins, and 300 copies of urban solid waste management law and regulations books to ensure effective management of plastic waste. SRP distributed 19 water dispensers, and 204 water bottles to reduce the use of PET bottles. In addition, SRP organized a training workshop on Solid Waste Management in urban area with Commune/Sangkat, District/Krong and other relevant communities, and 4 dissemination workshops to improve awareness about new regulatory measures on waste management ion and 4Rs.



Phnom Penh (PNH) implementation: PNH PDoE identified 53 waste hotspots in 6 districts and conducted 8 training workshops for 880 university students from 8 universities on plastic reduction through 4R framework. As a result, 4K+4R youth groups with 10 members per group were created to share their knowledge on environment and to monitor, and report on PNH city environmental pollution issues. PNH organised awareness raising on 4Rs with 20 schools from 16-24 May 2022 reaching 3,794 (1,909 female) students.



Sihanoukville (SHV) implementation: SHV PDoE identified 15 government institutions, 9 schools, 3 fishing communities, 1 eco-tourism community, and 2 hotels to implement the 4R framework. They are in the process of obtaining an approval from the provincial governor to charge a fee on plastic bag to reduce its consumption at supermarkets, identifying 3 plastic free zones at Koh Krabei hotel, Prek Treng beach, and Hun Sen Metpheap school, and identifying 12 waste storage depots in Koh Rong (4 for public and 8 for hotels and resorts).



Kep implementation: Kep PDoE finalised the design of signboard on transitional fine for littering in public spaces to raise awareness among the public about the sub-decree 113.

Koh Rong implementation by Koh Rong Environmental Conservation Association (KRECA): Primarily focusing on Prek Tasok community, KRECA implemented several activities to reduce plastic consumption. These activities included 1) awareness raising through 1 educational video on “Proper Waste Disposal in Koh Rong” and clean-up activities; 2) strengthening of plastic management through provision of draft waste management guidelines, 20 waste bins, 2 push carts, and 10 educational signboards; 3) capacity building through provision of 2 trainings on “Reduction of Plastic Consumption through 4Rs” and “Environmental Protection and Solid Waste Management”; and 4) promotion of the use and adoption of eco-friendly products and measures in tourism businesses in Koh Rong.



Output 4: Priority business models for plastic recycling and alternatives supported and tested

Provision of alternatives to plastics, operationalising of EPR and upgrading plastic recycling capacity are among high priorities for Cambodia in addressing plastic challenges. The project ran another innovation challenge to solicit innovative ideas for the wider adoption of alternatives, developed a draft report on recycling to identify possible types of plastic products, developed a “Hotel Manual” for the hospitality sector to reduce the plastic use and generation of plastic waste and identified possible business models that contribute to the effective collection and recycling of plastic waste.

Sustainable E-Commerce Innovation Challenge on Alternatives: In collaboration with UNDP Accelerator Labs the below three winners were selected to test solutions for the food delivery and e-commerce packaging sector, that can contribute to the wider adoption of plastics alternatives and innovative means to change plastics distribution and consumption.

1. **The Idea Consultancy Co.,Ltd** proposes “Just Good Refills” as a packaging-free refilling service that connects local producers directly with end-users such as households and businesses through mobile refilling services.
2. **TK&D Manufacturing** proposes rice straw (100% organic) and paper food packaging as an alternative to plastic, that has little harm to the environment. Rice straw is made of 100% rice mill which can be dissolved within an hour or two. Paper food packaging is made from sugar cane.
3. **Villageworks (Cambodia).Co.,Ltd** proposes the use of banana stem as an alternative packaging material to plastics. This includes: 1) banana stem to packaging for food delivery such as food container, bag, picnic plate and bowl; 2) banana fibre making as string and rope for all type of wrap, tie and carry food; and 3) Banana paper wrap is using for replacing plastic wrap. This business model also seeks to empower, and benefit marginalized people by providing employment opportunities for women and people with disabilities.

Draft report on plastic recycling and ways forward: The draft report identifies target plastic products and recycling business models most applicable for upscaling plastic recycling businesses in Cambodia. The report examines global recycling; case studies of recycling initiatives in Asia Pacific; waste import and generation, and highlights opportunities for domestic recycling in Cambodia. It also provides a roadmap for improvement of plastic waste processing capacity and recommendations for upscaling plastic recycling. Recommendations will be incorporated into the draft sub-decree measures and have been incorporated into the design of the EPR pilot business model proposed for Phnom Penh.

Identification of priority EPR business models for piloting plastic circularity: the following business models were identified as priority models for promoting plastic circularity:

- Model 1: Promoting plastic waste collection and recycling through the engagement of the informal waste sector in PNH
- Model 2: Turning non-recyclable plastic into energy in Sihanoukville
- Model 3: Reducing plastic waste with refilling services for the hospitality, and

For model 1, the project finalised the draft design EPR pilot and identified IKEE Ltd. as an EPR pilot project implementer in Phnom Penh to test a business model to mix plastic waste into asphalt production. Pilot design activities are scheduled to commence from September 2022.

For model 2, an awareness raising and educational campaign under the name “Plastic-Free Coastlines” was conducted by TONTOTON, to target 2 villages between January and March 2022. This campaign aimed at increasing awareness on plastic crises and promoting plastic collection for recycling in the coastal communities (fishing villages, informal sector, and school students) in SHV province. Materials produced for the campaign included 1) posters for schools; 2) 1 video to introduce the plastic free coastline campaign; 3) Flipchart for community meetings; 4) Flyers; and 5) reusable bags. The campaign has directly reached a total of 458 people (49,8% women and 49,8% men) of which 155 adults and 303 children from schools. It also provided 2 schools with equipment to sort different type of waste (bins)

For model 3, the project developed a “Hotel Manual” for the dissemination of best practices for the adoption of circular economy measures to reduce plastic waste generation in the hospitality sector. The project will further work with hotel associations in SRP, SHV and PNP to adopt recommended measures to adopt the 4Rs.

Output 5: Best practices disseminated and shared

Development and strategic communication of project promotional materials: To increase the project visibility as well as to disseminate awareness-raising and outreach materials more consistently to wider audience, from 2022, PMU hired 2 part-time specialists to focus on strategic communication. A range of materials were produced to inform the public about the project and its work on plastic management including a project video, a project brochure, a poster targeting consumers, and 6 social media handles as follows:

- Facebook: <https://www.facebook.com/MarinePlasticCambodia>
- TikTok: <https://www.tiktok.com/@marineplasticproject>
- Twitter: <https://twitter.com/MarinePlasticKH>
- LinkedIn: <https://www.linkedin.com/company/marine-plastic-cambodia>
- Instagram: <https://www.instagram.com/marineplasticproject/>
- YouTube: https://www.youtube.com/channel/UCFIxFATLSCczKwgli0_cHhA



KEY RESULTS - AS OF APRIL 2022

Develop and implement policies and regulations

- Launched a national Circular Economy Strategy and Action Plan (2021-2035)
- Developed a draft sub-decree on plastic management including proposed measures on single-use plastic products, and an initial EPR roadmap for Cambodia

Raise awareness

- Developed awareness-raising videos, social media handles, and printed educational materials
- Facilitated an innovation challenge to support #BeatPlastic campaign for behavioral change

Support businesses

- Facilitated an innovation challenge to identify viable alternative businesses
- Assessed international and domestic examples of recycling and recommended ways forward
- Designed initial EPR pilot business models

Implement key activities in target provinces

- Developed action plans for reducing plastic waste
- Outreached more than 30 target schools and communities

For more information on the project, please visit:

- Facebook: Marine Plastic Cambodia
- TikTok: MarinePlasticKH
- LinkedIn: Marine Plastic Cambodia
- YouTube: Marine Plastic Cambodia
- Instagram: MarinePlasticCambodia
- Twitter: MarinePlasticCambodia
- Website: combattingmarineplastic.moe.gov.kh
- Website: cam.moe.gov.kh

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SUSTAINABLE DEVELOPMENT GOALS

3	9	11
12	14	15

Combating Marine Plastic Litter Project

January 2021 – August 2023

This project is funded by the Governments of Japan and implemented by the Ministry of Environment with technical and financial support from UNDP in partnership with other government entities, development partners, citizens, civil society and private sector.

Contribution to the global UNDP webinar ‘Let’s Talk Plastics’: On 10 March 2021, the project contributed to the UNDP webinar ‘Let’s Talk Plastics’, sharing Cambodia’s ongoing efforts to tackle plastic pollution with more than 100 participants globally.

Learning seminar with UNDP India: On 4 June 2021, UNDP India led an online learning seminar with around 30 participants from the MoE and target provinces (Siem Reap, Phnom Penh,

Sihanoukville, and Kep) offering tips on engaging large companies to work with informal waste-pickers in plastic waste collection and recycling under EPR.

Contribution to the Waste Summit Cambodia: The project delivered four presentations at the Waste Summit hosted by Konrad-Adenauer-Stiftung in Sep 2021 and August 2022:

- ‘Circular Economy Strategy and Action Plan and SCP Roadmap’ by H.E. Dr. Ngin Lina, Project Board Member and Deputy Secretary-General, NCSD (2021);
- ‘Promoting Circular Economy Measures for Tackling Plastic Pollution’ by Dr. Moeko Saito-Jensen, Environmental Policy Specialist, UNDP Cambodia (2021);
- “The role of informal sector in the Circular Economy” by Dr. Keo Vanthoeun (2022);
- ‘How to best engage the informal sector in waste management’. by Dr. Moeko Saito-Jensen, Environmental Policy Specialist, UNDP Cambodia (2022).

Organization of the Second National Forum on Plastic: On 15 December 2021, the project organized a Second National Forum on Plastic “Identifying Priority Actions Against Plastic Pollution in Cambodia” (the first taking place in 2019) to share up-to-date knowledge and practices related to plastic management and to identify priority joint actions against the plastic crisis. The meeting brought together more than 100 stakeholders from the government, NGOs, civil society, development partners, and the private sector.

Updates on Project Management

The prolonged period of Covid-19 pandemic has caused notable delays for project activities. The project implementation was further compounded by key staff turnover and time-consuming processes related to procurement and innovation challenges, affecting planned activities.

Nevertheless, the project team at both national and sub-national levels has implemented proactive measures to adjust strategies and revise project work plans and strategies in response to changing circumstances and requirements. As a result, many of key milestones have been delivered or are now back on track for full delivery. Throughout the project implementation, the project has informed the board and key project stakeholders about key progress and issues, and monitored the quality of project activities as follows:

PEB meetings: The below PEB meetings were held to update the Board members about the project progress made and planned activities in 2021 and 2022. 2022

- 1st PEB meeting: 5 March 2021
- 2nd PEB meeting (virtual): 3 Nov 2021
- 3rd PEB meeting: 27 January 2022

PMU reflection and planning meetings: The internal reflection meetings were held with participation from PMU, GDEP, GDEKI and UNDP to discuss about the challenges, lessons learned and planning.

- 1st reflection meeting: 14 Jan 2022
- 2nd reflection meeting: 23 Aug 2022

Spot check exercise: An annual spot check exercise was conducted from 7 to 11 February 2022 to IP to determine whether the funds transferred were used in accordance with the work plan, and in compliance with the applied rules and regulations, focusing on the accuracy of financial records, status of the programme, and whether there have been any significant changes to the applicable internal controls. The review covered the expenditure incurred from 1 April to 31 December 2021. Overall, the result was positive except for two high risk findings related to procurement. Necessary actions were taken immediately to ensure all measures to be in full compliance.

Refresher training for project Ips on finance and result-based reporting: A refresher training on finance and procurement management was conducted on 24th March 2022 by PMU team to share the HACT spot check findings and recommendations and to ensure accuracy and accountability of project implementation and adherence to UNDP rules and operational procedures. This training was also to support Ips in improving the quality of writing of their progress reports to focus on key results rather than listing activities. Participants included focal points from MoI, GDEP, GDEKI, and other 3 PDoEs.

Second audit was conducted from 26 to 29 July 2022 for the review period from 1 Jan to 30 June 2022. No major risks were identified.

Progress towards project outputs

PROJECT OUTPUT 1: Key enabling policies and regulations developed to promote 4Rs						
Project Output Indicators	Baseline		Target			Current status
	Value	Year	2021	2022	2023	
1.1. A circular economy strategy and action plan is adopted with measures to ensure gender equality and participation of vulnerable groups Measured by: 0 = drafted only, not endorsed or signed 1 = endorsed and signed	0	2020	Target:1	Target:1	Target:1	Achieved: The CE Strategy and Action Plan was signed by MoE and launched on 28 June 2021.
1.2. Number of enabling regulatory measures developed and implemented in support of the reduction of plastic and increase in recycling and alternatives Measured by number (cumulative)	0 (draft regulation on single-use plastic)	2020	1 (Sub-decree on plastic approved by MoE)	1 (Sub-decree approved by Council of Ministers)	2	On-track: <ul style="list-style-type: none"> • A draft sub decree was reviewed at the political level, • For EPR, a study on the scope of the market and production chain through interviews with companies that are producing and importing recycled plastic.
1.3. Extent to which CE and plastic approaches are adopted by line ministries Measured on a three-point scale: 0= None 1= Moderate extent: Initial endorsement 2= Great extent: Priority measures are adopted	0	2020	1	2	2	On-track:
<input type="checkbox"/> delivery exceeds plan <input checked="" type="checkbox"/> delivery in line with plan <input type="checkbox"/> delivery below plan						

PROJECT OUTPUT 2: Improved awareness about the plastic crisis and its solutions among citizens and the private sector through gender sensitive environmental education and awareness-raising activities

Project Output Indicators	Baseline		Target			Current status	
	Value	Year	2021	2022	2023		
2.1. Number of public schools that received gender sensitive educational materials and training on the plastic crisis and solutions SRP, SHV, PNH, KK, Kep and Kampot Measured by number of schools and students (cumulative and gender disaggregated)	0	2020	SRP: 10 SHV: 10 KK: 5 Kep+Kampot : 5	SRP: 15 SHV: 20 KK: 5 Kep: 5 Kampot: 5 PNH: 5 Other: 2 Total: 57	SRP: 18 SHV: 30 KK: 8 Kep: 5 Kampot: 10 PNH: 7 Other: 2 Total: 80	Behind targets: Koh Kong: 5 schools around 550 students (female 200) Kampot: 6 schools around 630 (female 250)	
2.2. Number of gender sensitive awareness-raising materials developed and disseminated to the public Measured by number (per year) a) Information on website b) Messages on social media c) Posters d) Videos & cartoons	0	2020	a) 1 b) 6 c) 2 d) 1	a) 3 b) 12 c) 1 d) 1	a) 3 b) 12 c) 1 d) 1	On-track: 2021 a) 3 b) 136 c) 44 d) 19	On-track: 2022: a) 0 b) 34 c) 2 d) 5
2.3. Number of people reached by awareness-raising communications on appropriate plastic waste management (gender disaggregated) SRP, SHV, PNH* Measured by number of people per target city (cumulative and gender disaggregated)	0	2020	Social media 1 million (50 % women)	Social media 3 million (50 % women)	Social media 5 million (50 % women)	On-track: A total of 1,089,164 social media reach (2021 989,799 (more than 50% women & 2022 87,000)	
2.4. Number of best practices to reduce plastic by private sector/citizens identified and featured on circular economy platform Measured by number (cumulative and gender disaggregated)	0	2020	5 (50% women-led)	5 (50% women-led)	10 (50% women-led)	On-track: A total of 21 businesses best practices are featured on the CE Leaders Platform.	
<input type="checkbox"/> delivery exceeds plan	<input checked="" type="checkbox"/> delivery in line with plan		<input type="checkbox"/> delivery below plan				

PROJECT OUTPUT 3: Plastic waste volume reduced in target cities through education, private sector led best practices and innovation

<i>Project Output Indicators</i>	<i>Baseline</i>		<i>Target</i>			<i>Current status</i>
	<i>Value</i>	<i>Year</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	
3.1 Number of cities/urban centres with operational SWM Plans	0	2020	1	2	3	No update
3.2 Extent to which priority measures for plastic waste are integrated in city plans with measures to ensure gender equality and participation of vulnerable groups SRP, SHV, PNH* Measured on a three-point scale: 0= None 1= Moderate extent: Initial set of policy measures are proposed 2= Great extent: Agreed set of measures receive Government endorsement	0	2020	SRP: 1 SHV: 1 PNH: 1	SRP: 2 SHV: 2 PNH: 2	SRP: 2 SHV: 2 PNH: 2	No update
3.3. Number of public schools with reduction measures for single-use plastic items adopted SRP, SHV, PNH, Koh Kong, Kep and Kampot Measured by number of schools and students (cumulative and gender disaggregated)	0	2020	SRP: 10 SHV: 10 Koh Kong: 5 Kep+Kampot : 5	SRP: 15 SHV: 20 KK: 5 Kep: 5 Kampot: 5 PNH: 5 Other: 2 Total: 57	SRP: 18 SHV: 30 KK: 8 Kep: 5 Kampot: 10 PNH: 7 Other: 2 Total: 80	On-track: 27 water filtration systems SHV: 12 Kep: 5 Kampot: 7 PNH: 3
3.4. Volume of plastic waste reduced as a result of the above support for schools Measured by volume against baselines (note: exact targets will be defined after baseline assessments)	NA		SRP: 24 tons SHV: 24 tons PNH: 24 tons Total: 72 tons	SRP: 45.6 tons SHV: 45.6 tons PNH: 45.6 tons Total: 136.8 tons	SRP: 72 tons SHV: 72 tons PNH: 48 tons Total 192 tons	Behind targets: Result: 16.2 tons (2022)
3.5. Number of business entities (primarily in the tourism sector) with measures for single-use plastic items/recycling adopted Measured by number (cumulative and if relevant gender disaggregated)	0	2020	SRP: 10 SHV: 05 PNH: 05 Total: 20	SRP: 10 SHV: 10 PNH: 10 Total: 30	SRP: 15 SHV: 15 PNH: 15 Total: 45	Behind targets: No update

3.6. Volume of plastic waste reduced as a result of the above support for business-led initiatives Measured by volume against baselines (Note exact targets will be defined after baseline assessments)	0	2020	SRP: 2.6 tons SHV: 1.3 tons PNH: 1.3 tons Total: 4.9 tons	SRP: 2.62 tons SHV: 2.62 tons PNH: 2.62 tons Total: 7.86 tons	SRP: 3.93 tons SHV: 3.93 tons PNH: 3.93 tons Total: 11.8 tons	Behind targets: No update
3.7. Number of pilots for plastic circularity Measured by number (cumulative)	0	2020	0	1 pilot designed in SHV	1 pilot tested in SHV 1 pilot tested in PNH	Achieved: (MoU with TONTOTON in SHV).
<input type="checkbox"/> delivery exceeds plan	<input type="checkbox"/> delivery in line with plan		<input checked="" type="checkbox"/> delivery below plan			

PROJECT OUTPUT 4: Priority business models for plastic recycling and alternatives supported and tested

Project Output Indicators	Baseline		Target			Current status
	Value	Year	2021	2022	2023	
4.1. Number of priority business solutions identified for plastic recycling and alternatives Measured by number (cumulative)	0	2020	3	5	5	On-track: <ul style="list-style-type: none"> 3 business models identified under innovation challenge to promote alternatives 3 business models identified as possible options for piloting and testing plastic circularity
4.2. Number of plastic recycling and alternative innovations that ensure inclusion of women and vulnerable groups supported and tested for replication Measured by number (cumulative and gender disaggregated)	0	2020	2	3	4	On-track: <ul style="list-style-type: none"> 3 business models identified under innovation challenge are currently implemented A plastic circularity pilot in SHV being implemented
<input type="checkbox"/> delivery exceeds plan	<input checked="" type="checkbox"/> delivery in line with plan			<input type="checkbox"/> delivery below plan		

PROJECT OUTPUT 5: Best practices disseminated and shared

Project Output Indicators	Baseline		Target			Current status	
	Value	Year	2021	2022	2023		
5.1. Number of gender sensitive communication materials disseminated on the project best practice to increase local knowledge sharing Measured by number (per year) a) Project report b) Project brief c) Social media posts d) Newspaper articles	0	2020	a) 1 b) 1 c) 3 d) 1	a) 1 b) 0 c) 3 d) 1	a) 1 b) 1 c) 3 d) 1	2021 Beyond targets a) 1 b) 1 c) 136 d) 23	2022 Beyond targets a) 1 b) 2 c) 34 d) 1
5.2. Number of events organized and/or attended to disseminate project achievements and increase international knowledge sharing Measured by number (per year) and number of participants (gender disaggregated)	0	2020	1	2	1	2021 Beyond targets 10	2022 On trace 1
<input checked="" type="checkbox"/> delivery <i>exceeds</i> plan	<input type="checkbox"/> delivery <i>in line with</i> plan		<input type="checkbox"/> delivery <i>below</i> plan				

Progress towards Country Programme

CPD OUTPUT:			
Output indicators	Baseline (2018)	Target (2023)	Current status (month/year)
2.1.1: Number of cities/urban centres with operational Solid Waste Management Plans	0	3	The project has supported the development of three letters of agreement (LOA) for PNH, SHV and SRP for plastic waste management. The LoAs cover priority actions for reducing and recycling plastic waste, working together with government stakeholders, businesses, schools and local communities. LoAs are not part of the operational waste management plans per se, yet it is envisaged the priority actions in the LOAs are to be eventually incorporated into the three-year rolling investment plans for each province.
<input type="checkbox"/> delivery exceeds plan	<input type="checkbox"/> delivery in line with plan	<input checked="" type="checkbox"/> delivery below plan	

Progress towards Strategic Plan

OUTPUT:			
Output indicators	Baseline (month/year)	Target (month/year)	Current status (month/year)
1.4.1 Capacities developed across the whole of government to integrate the 2030 Agenda in development plans and budgets, and to analyse progress towards the SDGs, using innovative and data-driven solutions (SP1.1.1)		Dec, 2023	The MoE developed and launched the National Circular Economy Strategy and Action Plan. In alignment with the economic, environmental, and social development objectives set out in critical RGC policies, it supports a sustainable development approach and the UN Sustainable Development Goals (SDGs). These include SDG 1 (No poverty), SDG 3 (Good health and wellbeing), SGD 4 (Quality education), SDG 5 (Gender equality), SDG 6 (Clean water and sanitation), SDG 7 (Affordable and clean energy), SDG 8 (Decent work and economic growth), SDG 9 (Industry innovation, and infrastructure), SDG 11 (Sustainable cities and communities), SDG 12 (Responsible consumption and production), SDG 13 (Climate action), SDG 14 (Life below water), SDG 15 (Life on land), and SDG 17 (Partnerships for the goals).

1.4.1 Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains			A draft sub-decree on plastic management offers solutions to promote sustainable commodities and green and inclusive value chains related to plastic products. These solutions include a new measure on single-use plastic items and EPR. These measures will be tested and piloted in 2022 for scaling up.
<input type="checkbox"/> delivery exceeds plan	<input checked="" type="checkbox"/> delivery in line with plan		<input type="checkbox"/> delivery below plan

Progress towards UNDAF/Country Programme

OUTCOME:			
Outcome indicators	Baseline (month/year)	Target (month/year)	Current status (month/year)
UNDAF Outcome 3: By 2023, women and men in Cambodia, in particular the marginalized and vulnerable, live in a safer, healthier, more secure and ecologically-balanced environment with improved livelihoods, and are resilient to natural and climate change related trends and shocks.		2023	The project activities are designed with the objective to create a clean, green, and healthy environment, free from plastic pollution. While actual reductions in terms of plastic pollution are yet to be achieved, activities in 2021 served to build enabling foundations for implementing priority activities to reduce, collect and recycle plastic waste in 2022 and 2023. These foundations include new policy and regulatory measures for 4Rs, improved awareness about the importance of 4Rs, and identification of priority measures to reduce, collect and recycle plastic waste on the ground. In this first quarter of 2022, some plastic reduction has been achieved over 300 tons.
<input type="checkbox"/> delivery exceeds plan	<input checked="" type="checkbox"/> delivery in line with plan		<input type="checkbox"/> delivery below plan

Gender mainstreaming and women's empowerment

The project sought to ensure the active involvement of women and girls, who are among the most vulnerable to environmental degradation and often face inequalities in economic opportunities, representation in relevant decision-making, and the economic, environmental, and public health benefits of improved plastic waste management.

The project has considered gender equality in all processes and has obtained the gender marker rating 2 by UNDP for acknowledging the role of informal waste sector (comprised mostly of women) in the project strategy and for fully mainstreaming gender into all project outputs. During the design phase, project output indicators included gender disaggregated targets to encourage the participation of businesses led by women and to ensure they are sought out with support to test and replicate or scale-up recycling and plastic alternatives. When designing and developing awareness raising materials, the project has always ensured that they are gender balanced and appropriate.

Capacity development

Capacity development is one of the primary focuses of this project. It is imperative that respective government institutions and public and private partners develop the knowledge and skills necessary to sustain activities beyond the project's duration. The project has hence provided technical assistance in a manner that enhances the IP and RPs project management skills, and technical knowledge and capacity via on-the-job training and different stakeholders.

To enhance the knowledge of the key institutions for project management, the PMU at the beginning of the project implementation hosted a training that covered how to design, plan, implement, and monitor project activities and how to properly manage the project budget. The PMU team, along with UNDP's support, regularly provided refresher trainings whenever needed and guidance to RPs in all target provinces to ensure good project management and compliance.

Besides project management, the project has sought to emphasize the government ownership and leadership from the start. For example, the focal points and relevant responsible persons from each provincial RPs were engaged in all planning, design and implementation so that government agencies can lead activities in accordance with their priorities and interests. As a result, after PMU, RPs, and subnational actors became familiarised with the project's concepts, objectives and implementation modality, they started to take their own initiatives to design and implement activities which they defined as priorities, as exemplified by various initiatives led by the subnational level project actors.

Furthermore, the project provided a wide range of capacity development support for public and private stakeholders on plastic pollution and recommended measures through trainings and outreach and awareness raising activities.

Innovation

The project adopted an innovation challenge modality to explore creative approaches to awareness-raising and behaviour change as well as promoting plastic alternatives. The Innovation Challenge for #BeatPlastic Campaign (Output 2) was initiated to identify creative ways to initiate public behaviour change towards the 4Rs and to measure the effectiveness of the campaigns. Meanwhile the Innovation Challenge on Alternatives (Output 4) was initiated to promote the use of alternatives by making options more available and accessible.

The project also sought to bring more creativity in engaging stakeholders and the general public in the fight with plastic pollution through creating environmental clubs in universities, initiating creative waste bin design competition, engaging venerable monks and youth influencers in awareness raising activities, and organizing events in Borey housing compounds to educate their residents about plastic.

Environmental and social safeguards

To prevent and mitigate undue social and environmental harm to local communities, the project incorporated safeguard clauses in all LoAs of the RPs. The RPs have agreed to establish grievance mechanisms to receive and facilitate resolution of affected communities' concerns and grievances, resolve concerns promptly, and – in consultation with concerned parties – provide periodic reports to affected communities on the project's progress and issues that involve ongoing risk to or impacts on them. The RPs will also report risks and risk mitigation measures on a quarterly basis.

South-South and triangular cooperation

The project has contributed two main events as part of South-South and Triangular Cooperation. Those events included a global UNDP webinar on “Let’s Talk Plastic” and a learning seminar with UNDP India.

- ***Contribution to the global UNDP webinar ‘Let’s Talk Plastics’***: On 10 March 2021, the project contributed to the UNDP webinar ‘Let’s Talk Plastics’, sharing Cambodia’s ongoing efforts to tackle plastic pollution with more than 100 participants globally.
- ***Learning seminar with UNDP India***: On 4 June in 2021, UNDP India led an online learning seminar with around 30 participants from the MoE and target provinces (Siem Reap, Phnom Penh, Sihanoukville, and Kep) offering tips on engaging large companies to work with informal waste-pickers in plastic waste collection and recycling under EPR.

Lessons learned

The project has notable lessons learned listed below.

1. **Important to take national circumstances into consideration for regulatory measures to be effective**: A currently drafted new sub-decree on plastic management is to introduce new measures to regulate the use of single-use plastic items and to promote alternatives and recycling. While it is imperative to reflect global and regional best practices for proposed regulatory measures, it is equally important to ensure the proposed measures to reflect the Cambodia’s specific national circumstances and political economy contexts.

2. **Awareness raising lays a key foundation for any regulatory measures to achieve intended impacts.** Awareness raising activities supported by the project played a significant role in improving the knowledge among the public about plastic pollution and solutions. Strategic communication using various social media such as FB, TikTok and YouTube and engagement of monks and other influencers worked effectively to outreach a wider segment of the society. Beyond the dissemination of the knowledge, additional systematic communication efforts are required to change the actual behaviors of the target stakeholders. The innovation challenge on beat plastic campaign will be used to further assess the linkage between knowledge and behavior change.

3. **Additional technical and financial support for alternatives and recycling business is conducive to the successful reduction of plastic consumption and waste generation.** Through the innovation challenge on e-commerce, the project identified several alternative businesses as possible solutions to plastic challenges. The project also identified priority measures for upscaling recycling business in Cambodia. Additional enabling regulatory measures including EPR are pivotal to mobilize required level of technical and financial support for alternatives and recycling businesses to provide a holistic solution for plastic challenges.

4. In addition to project activities related to regulations, awareness raising and business support, **provision of equipment** (e.g., water filtrations, waste bins, clean-up equipment) **served to reduce plastic use and waste generation in target provinces.** In particular, water filtrations systems at target schools provided multiple notable benefits. Not only to reduce the use of PET bottles at schools, but water filtrations systems also provided access to clean water for school children. Nevertheless, an additional need for environmental education was identified so that students fully understand the reasons why there is a need to reduce plastics, including the information on plastic crises and solutions.

Implementation challenges

Updated risks and actions

#	Potential risks	Countermeasures	Status
1	Continuous and possible COVID-19 outbreaks may delay the planned project activities and adversely impact delivery	Although travel restriction has been lifted, some delays in project delivery may occur due to the continuous spread of Omicron and other variants. The project continues to monitor situations and adopt appropriate measures (e.g. online meetings, repurposing activities) in response to changing circumstances.	Under implementation
2	Effective reduction of plastic waste requires drastic change in consumer behaviors to adopt 4Rs however consumers do not adopt the 4Rs	This project has actively promoted education and awareness-raising and applied strategic communication using a variety of communication tools (websites, posters, social media and music) and engaging influencers and celebrities to outreach a wider segment of the society.	Under implementation

#	Potential risks	Countermeasures	Status
3	Effective reduction of plastic waste requires drastic change in waste management practises among the private sector. But the private sector does not fully promote the 4Rs	The project seeks to engage and motivate the private sector by providing first-hand information and regulatory measures. This is done through direct outreach and information dissemination on CE Leaders Platform, a new draft sub-decree on plastic management and EPR.	Under implementation
4	Actions against plastic pollution are fragmented and uncoordinated	The PMU has organized regular project planning meetings involving technical focal points to ensure a coherent approach. The project has also promoted the inter-ministerial cooperation between MoE and Mol/NCDDS at the subnational level. The PMU also seeks to closely collaborate with relevant ministries in implementing priority actions. UNDP has also joined regular DP coordination meetings to ensure coordination and synergies among technical assistance provided by different development partners.	Under implementation
5	There may be challenges in effectively engaging all stakeholders in target provinces	The PMU closely follows up on activities implemented by each RPs, and instead of organizing joint meetings among provinces, individual meetings have been arranged to address specific challenges with relevant RPs. For communication improvement, The PMU created Telegram group for all provincial focal points and also arranged quarterly meeting with them.	Under implementation
6	Upcoming elections may delay project implementation and impact the delivery of key results (NEW)	The project prioritizes activities that require subnational inputs and time from the national and subnational government officers in this quarter since the election will be held in June. It also prioritizes private sector engagement activities to ensure timely delivery.	Under implementation
7	There may be challenges/obstacles in diverting plastic waste for plastic recycling business activities due to existing interests (NEW)	The project will map major actors and their relationships in the management of waste in Phnom Penh and Sihanoukville and propose feasible mechanisms building on the existing relationships to the extent possible.	Under implementation
8	Partnership with the private sector under EPR may be seen as green washing if only focusing on downstream solutions	All existing controversies and potential risks were thoroughly analyzed. Communication and risk mitigation measures and strategies are being developed. In addition, the draft sub decree is being developed in a manner to offer both upstream and downstream solutions. For example, it does not include only EPR but also include measures that ban production and import of certain single-use plastic items.	Under implementation

Updated project issues and actions

Issue 1: An annual spot check exercise conducted to IP from 07 to 11 February 2022 identified two high risk items.

Actions taken: *The UNDP and PMU teams together addressed all the issues to ensure full compliance while minimizing the delays of project delivery. The UNDP procurement team currently provides back-up support to PMU for the procurement of items of high values*

Issue 2: Prior to 2022, a challenge existed to achieve more project visibility and to bring awareness on plastic issues

Actions taken: Starting from 2022, the project engaged 2 Communication Specialists to provide day-to-day support in outreach through strategic communication.

Issue 3: Challenges arose in relation to information flow, coordination, and synergy among activities implemented by different departments and provinces. For example, MoI and SRP both plan to conduct a training on solid waste management to local authorities while GDEKI and PNH are both working on forming environmental clubs in universities in PNH.

Actions taken: To enhance information flows across all levels, and to ensure coordination among project activities, GDEKI was also included in the weekly team meetings to closely monitor each project activity and identify such issue as soon as possible. Special meetings are arranged for involved RPs in specific tasks to ensure synergy and avoid duplication.

Issue 4: Until beginning of 2022, COVID-19 outbreak impeded project activities and adversely affected project delivery especially for field missions, workshops, and meetings. A delay in activity implementation by SRP RP was especially notable due to the change of leadership.

Actions taken: *Since the country's reopening, PMU and UNDP have conducted numerous field missions to follow up on the project implementation status to accelerate project delivery. PMU has been providing ongoing support to SRP in implementing priority activities.*

Issue 5: Students of some schools, which received water filtrations had limited awareness about why water filtrations services were provided to schools.

Actions taken: *PMU will work with GDEKI to distribute education and awareness raising materials to all schools which receive water filtrations to raise awareness about plastic pollution. PMU will focus more on awareness raising by producing more education videos through competition processes and post in different social media.*

Issue 6: Lack of service providers who can supply the equipment related to waste management which caused the delay for some procurement plans.

Actions taken: *PMU will identify more service providers and re-announce in different channels. PMU will revise the equipment based on the needs and consultations with stakeholders as well as seeking endorsement and approval from project board and donor.*

Financial status and utilization

Table 1: Contribution overview [15 January 2021 – 31 July 2022]

Donor Name	Contributions		Cumulative Expenditure [As of 31 July 2022]	Balance [In USD]
	Committed [In USD]	Received [In USD]		
The Embassy of Japan	3.011.354,29	3.011.354,29	1.223.267,27	1.788.087,02
UNDP [TRAC]	80.000,00	51.162,07	25.434,17	54.565,83
Total	3.091.354,29	3.062.516,36	1.248.701,44	1.842.652,85

Table 2: Cumulative Expenditure by Activity [Project start: 15 January 2021 – 31 July 2022]

Activities - Description	Total All Budgets [2021-2023]	Cumulative Expenditure [In USD]	Balance [In USD]	Delivery [%]
Output 1: Policies and regulations are in place to promote 4Rs	306,728.09	134,229.59	172,498.50	44%
Output 2: Improved awareness about plastic crisis and solutions among citizens and the private sector through environmental education and awareness-raising activities	529,689.48	260,824.76	268,864.72	49%
Output 3: Plastic waste volume reduced in target cities compared to Business as Usual	1,048,677.96	390,779.94	657,898.02	37%
Output 4: New business models to reduce and recycle industrial waste identified and promoted	568,878.19	129,701.89	439,176.30	23%
Output 5: Best practices to manage plastic waste disseminated nationally and internationally	56,728.79	29,804.59	26,924.20	53%
Project management	580,651.78	303,360.67	277,291.11	52%
TOTAL	3,091,354.29	1,248,701.44	1,842,652.85	40%