

Bring back life to the sea and value to the land

**Add value to plastic**

# Manual on the Marine Plastic Collection and Utilization Network Project

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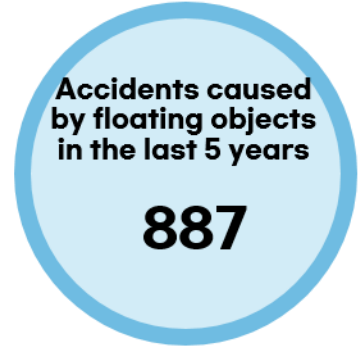
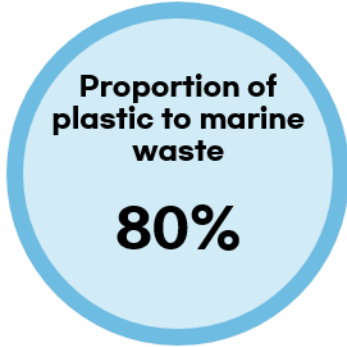
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# 1. Background

**Marine plastic, the culprit of pollution and destruction of the marine ecosystem**



Up to 10% of plastic produced worldwide ends up in the sea  
(estimated 500 million tons).

**Plastic accounts for 82% of marine waste.**

**The ratio of fish vs. plastic is expected to reach 1:1 by 2050.**

Plastic floats under the water surface, hard to collect, and hence prevention is the key.  
Plastic takes 500 years to decompose but still remains harmful as microplastic.

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## 2. Process

# Marine Plastic Collection and Utilization Network

Obtained  
an Ocean Bound Plastic (OBP)  
certificate, first time in Korea

## Process

	Step 1	Step 2	Step 3	Step 4
Participants	Oil hold cleaning companies, Korea Coast Guard	Oil hold cleaning companies, Hyosung TNC	Control Union	Social enterprises, clothing manufacturers
Activities	Build network with Korea Coast Guard and run public campaigns Collaborate with oil hold cleaning companies and select collection sites  Discuss measures for efficient waste collection	Build well-organized collection and management systems Build networks to recycle marine plastic into fabric	Obtain an OBP certificate (to get a due recognition as recycling marine plastic)	Produce and sell goods made from recycled marine plastic  YGPA produces goods on its own or has fashion brands manufacture goods
YGPA's achievement	Conducted campaigns to crack down on plastic dumping in partnership with Coast Guard. Signed agreements with 2 oil hold cleaning companies in Yeosu&Gwangyang Ports and selected two collection sit Prepared incentives for marine plastic collectiones.	Sack to plastic collection and daily collection activities records Hyosung TNC produces marine plastic-recycled fabric in partnership with YGPA. - Process : plants in Gwangyang Port > Gimpo > Incheon > Goryeong > Gumi	Obtained an Ocean Bound Plastic (OBP) certificate, first time in Korea	Produced marine plastic- recycled goods - Bags (200), safety vests (640), - traffic lane control blocks (180)  Fashion brands manufactured goods - bags ([Pleats Mama ) - clothes (The North Face)

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## Step 1

- ① Networking with Korea Coast Guard and Public Campaigns
- ② Collaboration with Oil Hold Cleaning Companies and Selection of Collection Sites
- ③ Discussion about Measures for Efficient Collection

# Step 1 Network with Korea Coast Guard and Public Campaigns

Korea Coast Guard

## Step 1

Build network with Korea Coast Guard and run public campaigns



During inspection of arriving vessels, provide guidance on separate plastic discharge and crackdown on plastic dumping at sea

Cooperation to prevent the generation of marine plastic at source

Publicize the Marine Plastic Collection and Utilization Project with arriving vessels

Production and distribution of campaign stickers and plastic collection sacks in joint with Korea Coast Guard





Publicize the resource circulation project

: Distribute plastic collection bags and manufacture stickers for collection boxes aboard the ships

Guidance on separate plastic discharge, ban on plastic dumping during arriving vessels inspections



Consultation to prevent marine plastic dumping



YGPA-KCG MOU to ban plastic dumping



Stickers and sacks for separate plastic discharge



Manufacture 10,000 sacks for marine plastic collection



Sacks to collect PET and general plastic

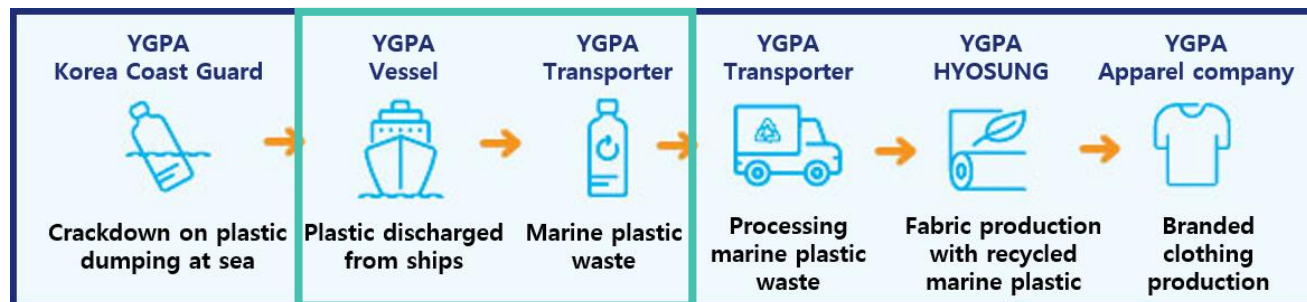


Campaign to stop plastic dumping at sea

## oil hold cleaning companies

### Step 1

Collaboration with oil hold cleaning companies & selection of collection sites



## oil hold Cleaning companies

Check the list of oil hold cleaning companies and select participants in the project  
Sign MOUs to build partnership

## Collection sites

Select sites for efficient collection and separate discharge

- under direct management by YGPA
- efficient collection and transportation of plastic
- sufficient area for separate discharge

Install facilities for separate collection of plastic (fence, notice board, etc.)

Collection and sorting of marine plastic - Sorted into PET and general plastic



Plastic

14.8 tons  
collected  
and sorted

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## Step 2

- ① Well-organized Collection and Management Systems
- ② Network to Produce Fabrics with Recycled Marine Plastic Waste

## Step 2 - Well-organized Collection and Management Systems

oil hold cleaning companies

### Step 2

### Build well-organized collection and management systems



#### Oil hold cleaning companies

Keep daily marine collection activities records  
Date, quantity and source(vessel) of plastic waste collection

#### YGPA

Manufacture and distribute sacks to collect plastic waste from vessel  
Distribute sacks to arriving vessels in cooperation with oil hold cleaning companies and Korea Coast Guard  
Operate well-organized control systems (e.g. collection quantity records by company, on-site inspection)  
Manage collection amount by company, correct record-keeping, and conduct on-site inspections

## Well-organized management systems for marine plastic waste collection

(example)

Designation of managers at oil hold cleaning companies

Daily collection activities records by oil hold cleaning companies

Supplier	주소	담당자명	연락처
(주)광양해양환경	전남 광양시 길호4길 8	부장	010-3
(주)동양	전남 여수시 오천3길 33	이사	010-3
서진환경(주)	전남 여수시 양지2길 16-2	부장	061-6
(주)우리환경	전남 여수시 돌산읍 강남3길 29-22 전남 여수시 여문로 28	부장	010-6
우진실업(주)	전남 여수시 좌수영로 57	부장	010-7
(주)하나환경	전남 여수시 어항로 7	이사	010-4

### 광양항 해양폐플라스틱 수거수량 점검표

#### Daily Collection Activities Record

순번	날짜 Date	수거수량(톤백) Total Number of ton bags collected	수거선박명 Name of Vessel	수거장소 Collection Site	수거업체 Suppliers	감독자 Supervisor
						1) [수거자 연락처] [Phone number] 2) [1톤백 무게] [1 ton bag] = 70kg
1	01월 02일	0.05	HL PORT WALCOTT	관리부두	광양해양환경	YGPA
2		0.10	GRAND SAPPHIRE	관리부두	광양해양환경	YGPA
3	01월 04일	0.05	HL IMABARI	관리부두	광양해양환경	YGPA
4		0.02	DOJUN BRAVE	관리부두	광양해양환경	YGPA
5		0.05	PICES	관리부두	광양해양환경	YGPA
6		0.04	DAZHI	관리부두	광양해양환경	YGPA
7	01월 05일	0.05	WOORYANG PRINCESS	관리부두	광양해양환경	YGPA
8		0.04	KARA	관리부두	광양해양환경	YGPA

➔ Designation of a manager in charge of the Project

➔ Keep daily collection activities record and communication with YGPA

## Daily Collection Activities Record

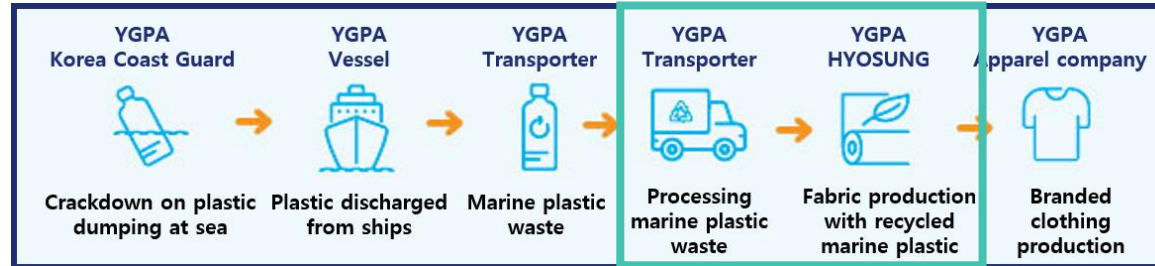
Education on and management of daily collection activities record (prepared by each company)

Date, quantity(weight/sack), source(vessel), location of collection

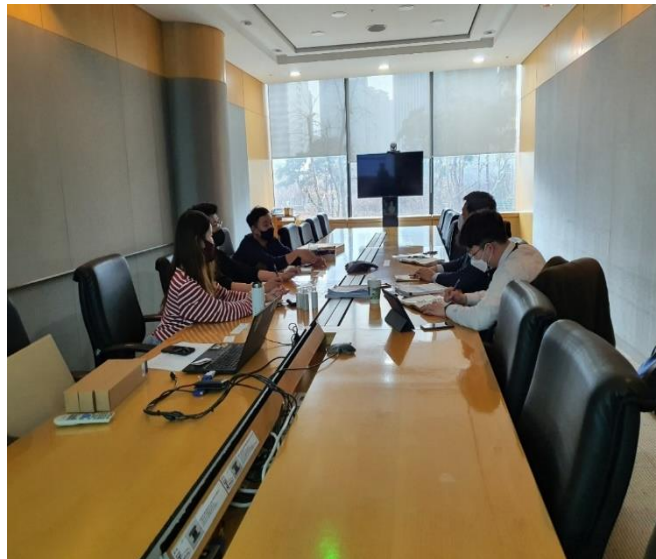
Hyosung TNC (fabric manufacturer)

## Step 2

### Build network to produce fabrics with recycled marine plastic waste



### Process to produce fabrics with recycled marine plastic waste (Regen-Ocean) in partnership between YGPA and Hyosung TNC



Collection /Storage	Transportation	Processing	Production of raw materials	Production of goods
Separate collection of PET	Transportation of PET	Pre-treatment of PET (sorting, washing, grinding)	plastic-based fabric production	Large companies
Oil hold cleaning companies	Transporters	Gyeonggi-do, Incheon, Gyeongsang buk-do	Hyosung TNC	Social enterprises, large companies

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## Step 3

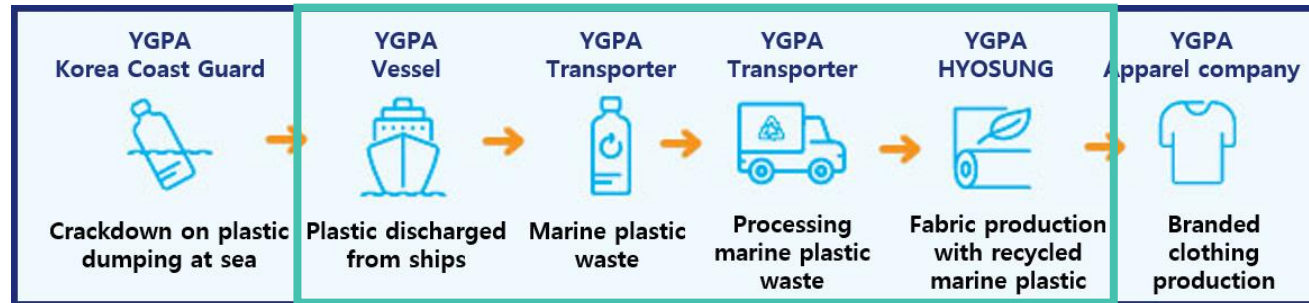
① Ocean Bound Plastic(OBP) Certification



Control Union (global certifier)

Step 3

Acquire an Ocean Bound Plastic (OBP) certificate



# What is OBP ?

Jointly developed by 'Control Union', an international certification agency with more than 70 overseas branches, and 'Zero Plastic Oceans', an NGO

To certify the collection, management, recycling, etc. of plastic waste collected at sea

Aimed at reducing plastic waste dumped at sea



Add new value to plastic waste collected at sea



## Acquired an Ocean Bound Plastic(OBP) certificate for the first time in Korea

COMPANY NAME	COUNTRY	CERTIFICATION #	STANDARD	CERT. DATE	VALIDITY	CERTIFICATE
NINGBO LET IT BE ARTS AND CRAFTS Co. Ltd.	China	C888557OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	26/09/2022	25/09/2023	OBP.CERT-REC-Ningbo Let It Be Arts And Crafts Co.,Ltd-2022
HENG HIAP INDUSTRIES Sdn. Bhd.	Malaysia	C871526 OBP.NEU-01.2022	OBP NEUTRALISATION SERVICES PROVIDER	09/09/2022	08/09/2023	OBP.CERT-NEU-Heng Hiap Industries SDN. BHD-2022
HENG HIAP INDUSTRIES Sdn. Bhd.	Malaysia	C871526 OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	09/09/2022	08/09/2023	OBP.CERT-REC-Heng Hiap Industries SDN. BHD-2022
HENG HIAP INDUSTRIES Sdn. Bhd.	Malaysia	C871526 OBP.COL-01.2022	OBP COLLECTION ORGANIZATION	09/09/2022	08/09/2023	OBP.CERT-COL-Heng Hiap Industries SDN. BHD-2022
SRICHAKRA POLYPLAST PRIVATE LIMITED	India	C889682OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	07/09/2022	06/09/2023	OBP.CERT-REC-Srichakra Polyplast India Private Limited
SHREE RENGA POLYMERS	India	22-402951	OBP RECYCLING ORGANIZATION	02/09/2022	01/09/2023	IDFL-FF-OBP1-06-2 Scope Certificate OBP Recycling Organization Standard - SRP Updated
PAKPOT Pty Ltd	Australia	C888019OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	29/08/2022	28/08/2023	OBP.CERT-REC-Pakpot Pty Ltd.-2022
SUZHOU JIAHAI SPECIAL FIBER Co., Ltd.	China	C888556OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	23/08/2022	22/08/2023	OBP.CERT-REC-Suzhou Jiahai Special Fiber Co., Ltd.-2022
MA BRAND OBJECT Ltda	Portugal	C881186OBP.REC-01.2022	OBP RECYCLING ORGANIZATION	19/08/2022	18/08/2023	OBP.CERT-REC-MA Brand Objects, Lda-2022
<b>YEOSU GWANGYANG PORT AUTHORITY</b>	Korea	C880616 OBP.COL-01.2022	OBP COLLECTION ORGANIZATION	18/08/2022	17/08/2023	OBP.CERT-COL-Yeosu Gwangyang Port Authority-2022



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## Step 4

- ① Production of Recycled Goods (upcycling)

## Social enterprises

### Step 4

### Produce goods with fabrics made from marine plastic waste



Branded clothes (The North Face)



Pleats Mama



Social enterprise  
(hiring people with  
severe disabilities)

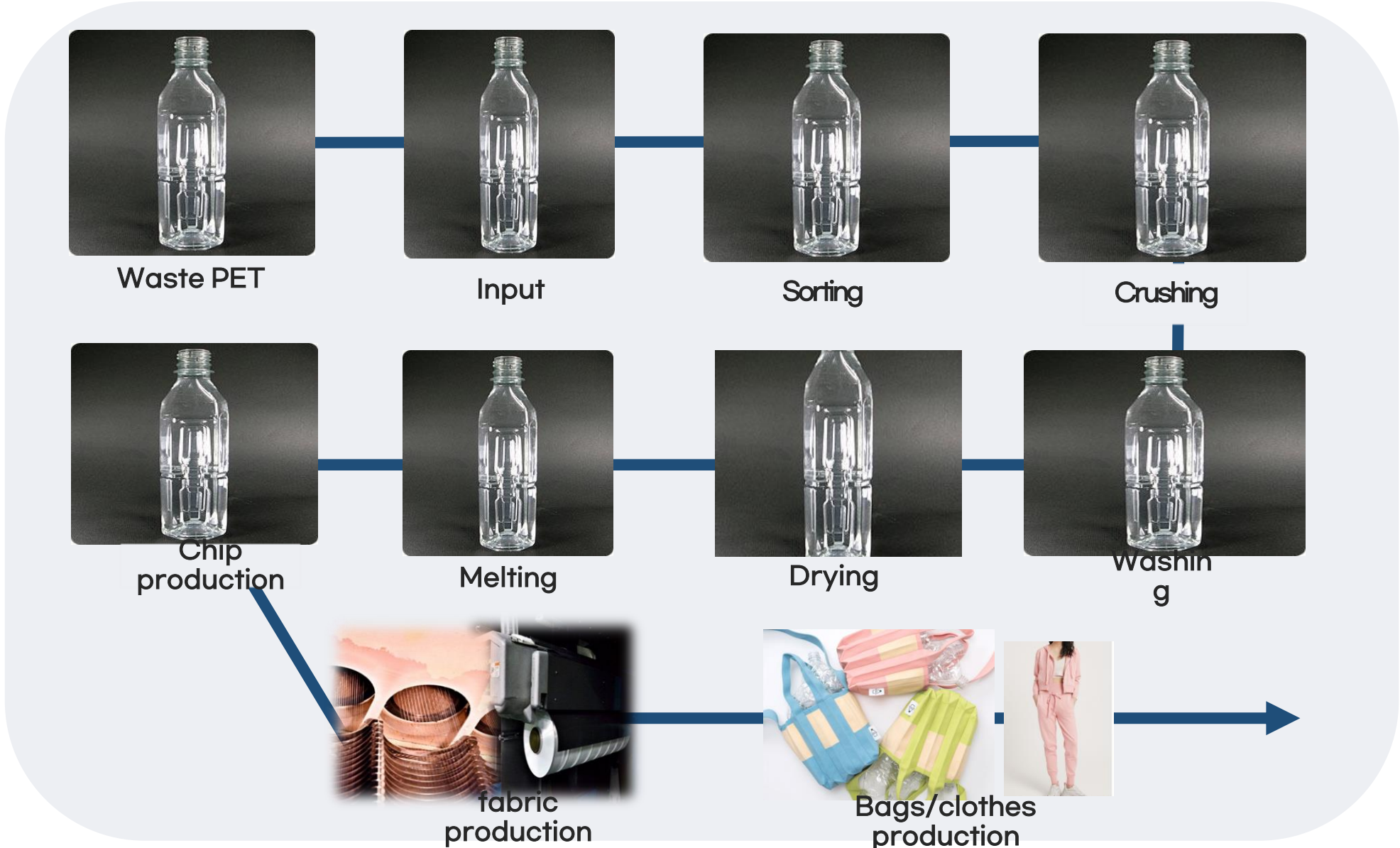


Support startups  
(run by young entrepreneurs)

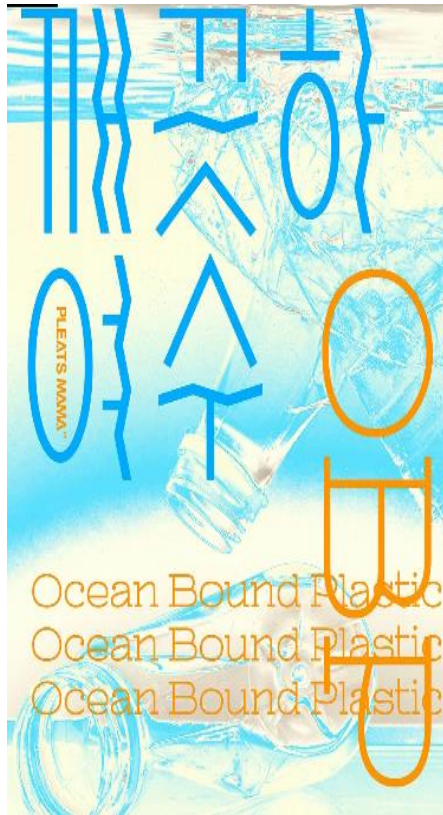
- Develop, produce and sell goods made with marine plastic waste-recycled fabrics
- Fashion companies produce&sell goods  
➡ Encourage ethical consumption, promote corporate value, secure social sustainability
- Produce goods in partnership with social enterprises ➡ Create social value and jobs

# Step 4 - Production of Recycled Goods

Process to manufacture goods with marine plastic waste



Eco-friendly fashion brand, **Pleats Mama** (goods made from marine plastic waste)



## Step 4 - Production of Recycled Goods

Produce upcycling bags and safety vests in partnership with a local social enterprise hiring workers with severe disabilities (**Songgwang Happy Town**)

Manufacturer located in Yeosu, Jeollanam-do (hiring about 20 workers with severe disabilities)



# Step 4 - Production of Recycled Goods

### Recycled bags (200)



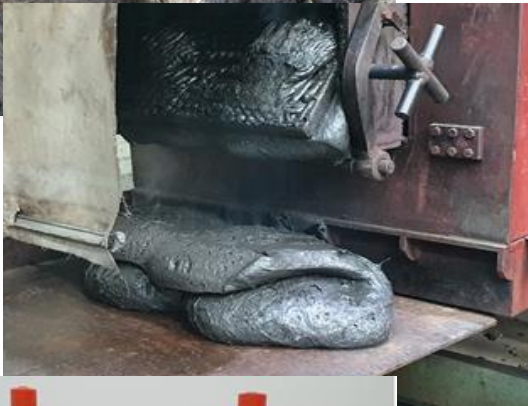
### Recycled safety vests (640)





## Step 4 - Production of Recycled Goods

Produce and use **traffic lane control blocks made from recycled plastic** in partnership with



Recycling  
through social  
enterprises



Production  
of traffic  
lane control  
blocks (180)



Set up recycled goods at the port

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## Further step

Promotion of the Marine Plastic Collection and Utilization Project

## Recycling Campaign at World Marine Center (in YGPA head office building)



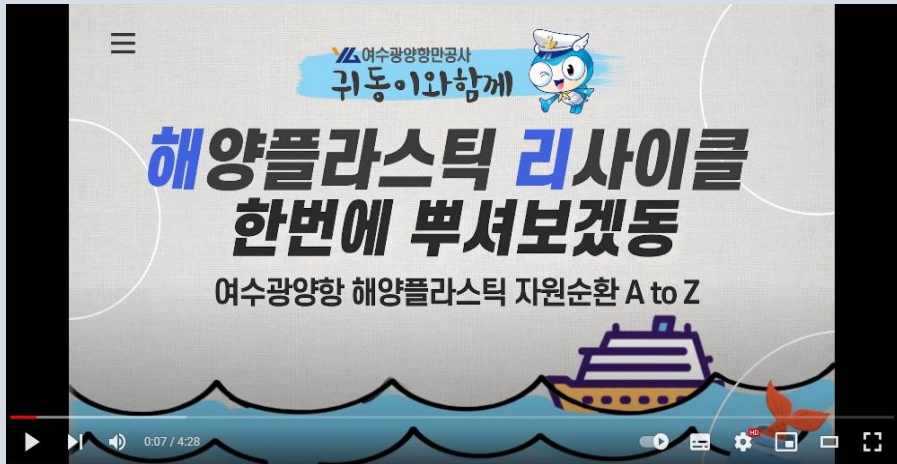
Installed 23 recycling boxes on 19 floors of the head office building  
to engage employees in the campaign

## Produce and distribute various content about the project

Brochure



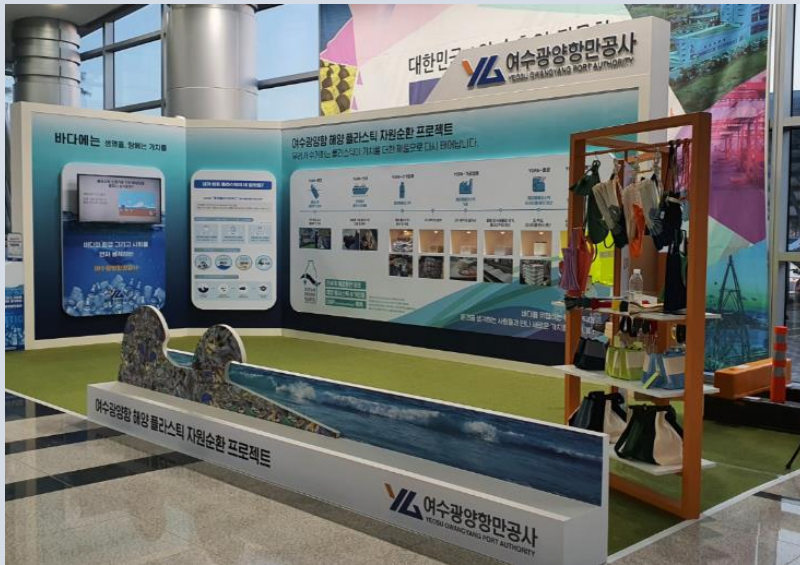
PR movie



Card news



## Open a PR hall for the Project in World Marine Center (in YGPA head office building)



Promote and share the results and values of the project with citizens and relevant organizations by exhibiting marine plastic recycling processes and recycled goods.

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# Manual on the Marine Plastic Collection and Utilization Network Project

# Thank You.