



**Asia-Pacific
Economic Cooperation**

2022/CTI/SYM1/018

**Sharing Sustainable Business Best Practices,
Success Stories Among APEC Economies: Health
and Wellness and Other Products and Services -
Biodegradable Packaging for Environment PLC**

Submitted by: Biodegradable Packaging for Environment PLC



**APEC Bio-Circular-Green Symposium
Bangkok, Thailand
20 May 2022**

grace^{กรุ}
Natural Plant Fiber Product



ONE LIFE.
ONE PLANET.



Company Profile

Biodegradable
Packaging for
Environment PLC,
Thailand

U.S. CITIES

New York City Bans Single-Use Styrofoam Products

Eliana Dockterman @edockterman
 Jan. 8, 2015



Ban will go into effect July 1

Former New York City Mayor Michael Bloomberg left office in 2013, but his plan to ban styrofoam is **finally** coming to fruition.

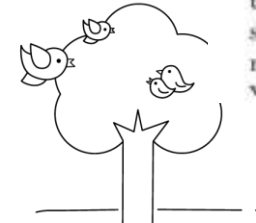
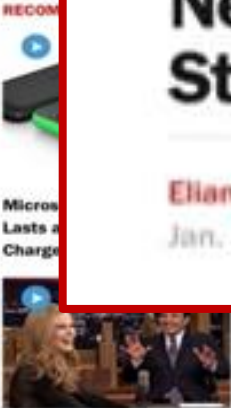


A food cart worker filled a styrofoam take-out container for a customer in New York City. (AP Photo/Spencer Platt—Getty Images)

Mayor Bill de Blasio's administration announced Thursday that stores, food service establishments and manufacturers won't be able to possess, sell or offer single-use styrofoam containers or cups — even "packing peanuts" — beginning July 1. The reason is purely environmental, as Expanded Polystyrene Foam cannot be recycled.

"These products cause real environmental harm and have no place in New York City. We have better options, better alternatives, and if more cities across the country follow our lead and institute similar bans, those alternatives will soon become more plentiful and will cost less," said de Blasio. "By removing nearly 30,000 tons of expanded polystyrene waste from our landfills, streets and waterways, today's announcement is a major step towards our goal of a greener, greater New York City."

New York
Announcement
The use of foam is prohibited in all stores and restaurants.



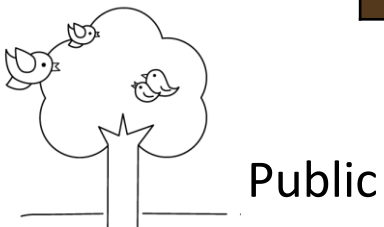
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Degradation period in nature

Product	Degradation Period
Paper	2-5 Months
Orange Peel	5 Months
Cigarette Butts	12 Years
Can	80-100 Years
Plastic	450 Years
Foam	Does not Decompose



How much foam and plastic do we use today?

From the statistical data, it was found that

Thai people throw away plastic and foam waste

Average 2.3 pieces per person per day

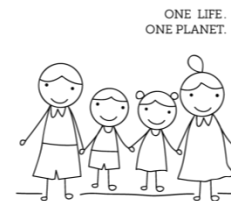
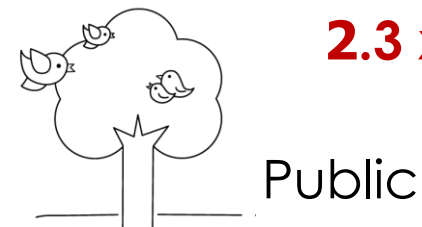
If more than 60 million Thai people to separate plastic and foam waste into proportions and put them together

In one year, plastic bags and styrofoam boxes will be collected.

Total about.....

$2.3 \times 60,000,000 \times 365 = 50,370,000,000$ bags or boxes

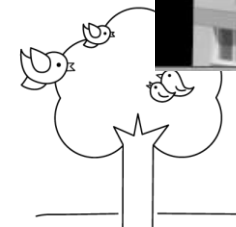
(Five thousand, three hundred and seventy million)





Amount of Waste

From foam and plastic in Thailand per day
If they put them together, they would be
as tall as a 10-floors building.



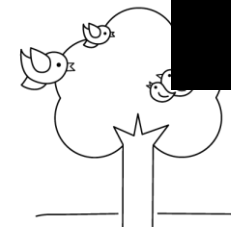
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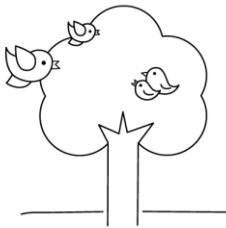
In a year, we build a 10-floors building from waste = 365 buildings.



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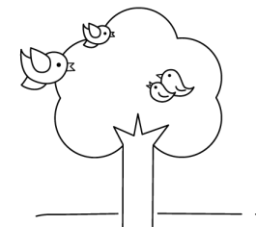
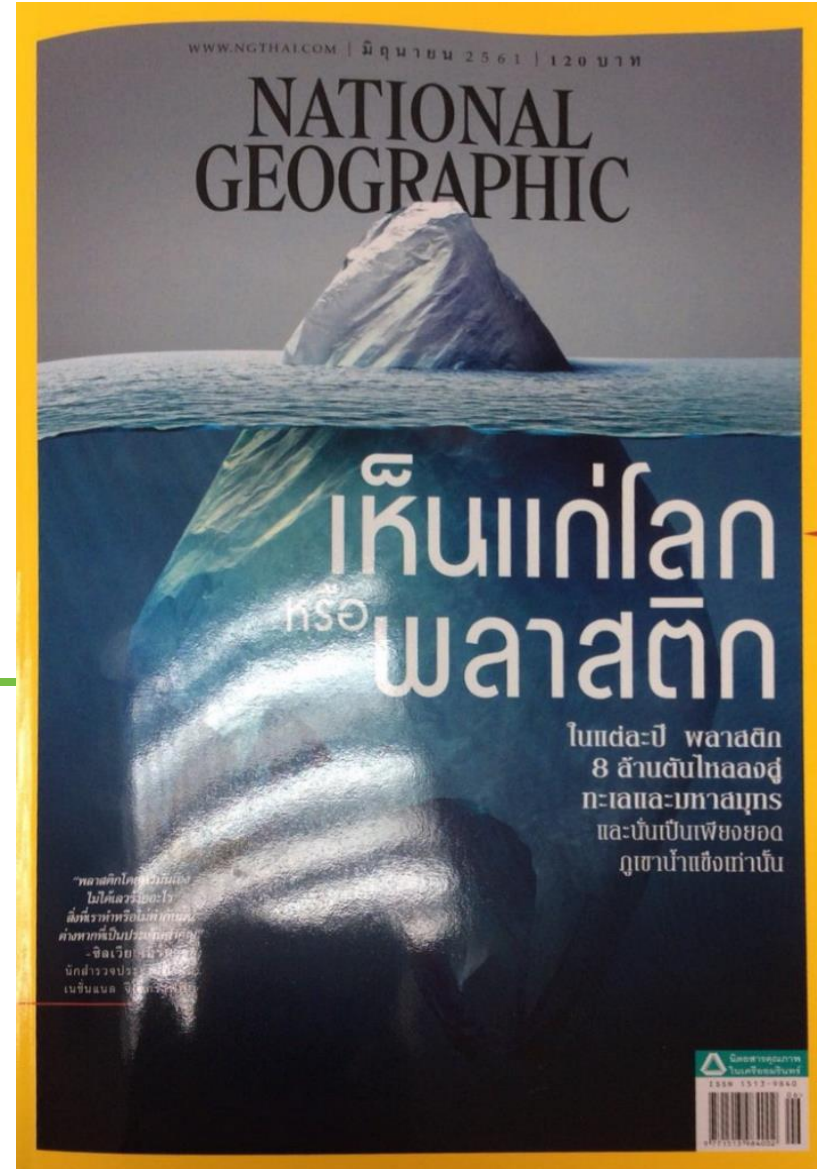


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Microplastic



Nanoplastic

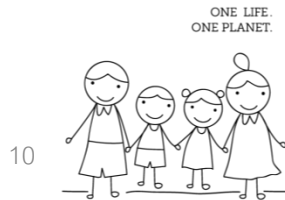
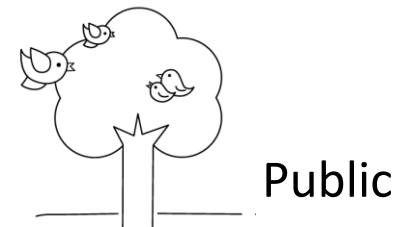


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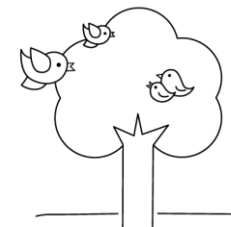
ONE LIFE. ONE PLANET.

NO Single Use Plastic

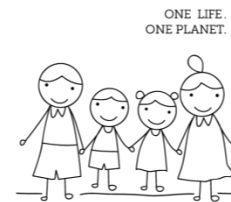


“There has never been a more urgent need to revive damaged ecosystems than now”

“Ecosystems support all life on Earth. The healthier our ecosystems are, the healthier the planet - and its people”



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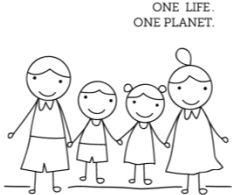
ONE LIFE.
ONE PLANET.

Because we believe we have only "One Life,One Planet", we try our best to preserve it as best as we can.
Gracz is a compostable tableware and packaging products for lifestyles of health and sustainability.



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"One Life,One Planet"



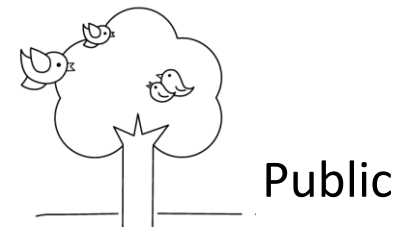
Solution to **restore** ecosystem

Product Circular under brand “Gracz”



FROM NATURE TO NATURE

- ✔ Creates value from agriculture waste.
- ✔ Reduces the burden on landfill sites from the first until the last process.
- ✔ Does not cause any air pollution(PM 2.5) nor release any harmful chemicals to any lives.



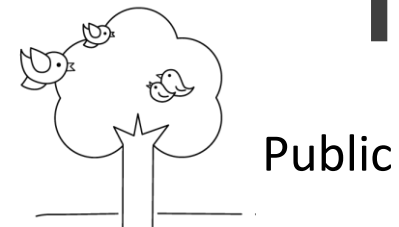


From **Waste**

To **Value**

100% made from
Natural Plant
Fiber

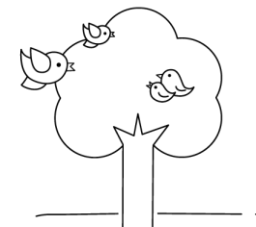
Thailand is agriculture base area



3 Main benefits

- **Health** : Non toxic and non carcinogen
- **Environment** : Compostable within 45 days
- **Functions**:Microwavable, Ovenable, and Freezable

Add Value to waste,
add Health and Well-being to people

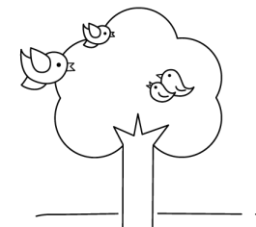


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Hot & Cold

Freezable



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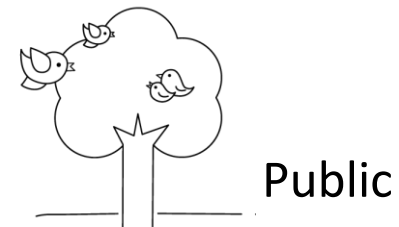




Microwavable

Environmental friendly

- Gracz made from 100% natural plant fiber (non-wood fiber)
- **Compostable & Fertilizable** within 45 days without any chemical left to the environment



Save the World

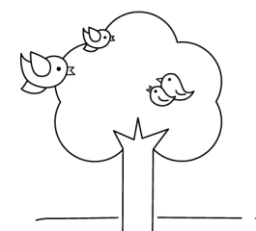


grac2

Natural Plant Fiber

กระดาษจากธรรมชาติ

- ใช้ทดแทนพลาสติก
- ใช้กับไมโครเวฟได้
- ใช้สำหรับใส่อาหารร้อนได้
- ใช้งานได้ประมาณ 45 วัน



Public



Solution to beat plastic pollution

Compostable Packaging made of 100% natural plant fiber

Health

- Non toxic and non carcinogen

Environment

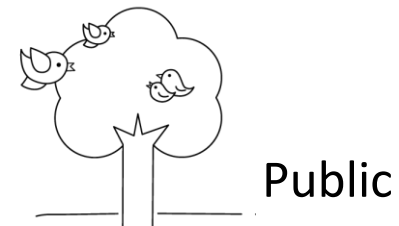
- Natural plant fiber
- No plastic coating
- Compostable and fertilizable within 45 days

Functions

- Hot water (95-100 Celsius)
- Hot oil (120 Celsius)
- Microwavable (1300 watt for 5 minutes)
- Ovenable (200 Celsius for 30 minutes)
- Freezable (minus 20 Celsius for 24 hours)



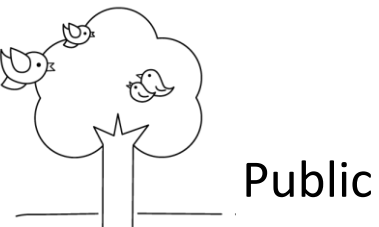
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Variety of Products Food Packaging

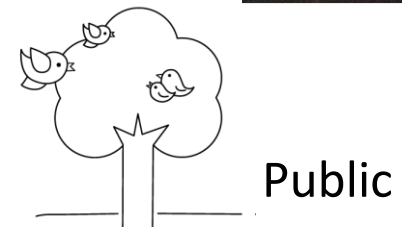


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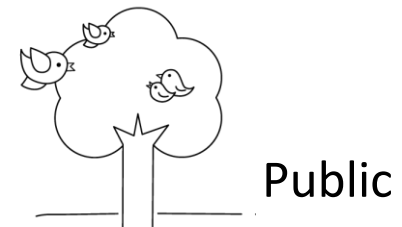


ONE LIFE.
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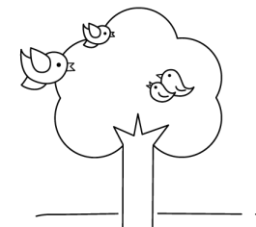
Variety of Products Food Packaging – hot and cold use



Variety of Products Food Packaging - Ovenable



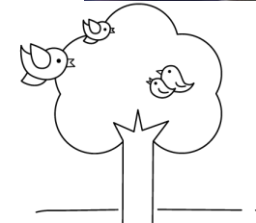
Variety of Products Food Packaging



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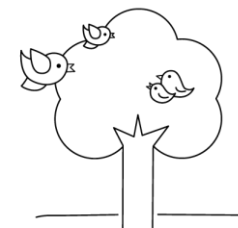
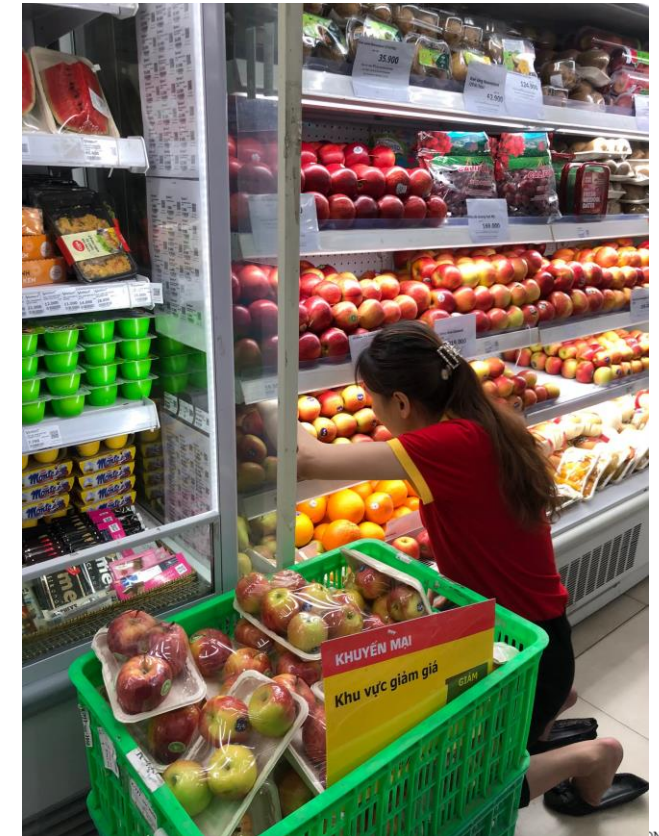
Variety of Products Food Packaging



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Variety of Products Food Packaging

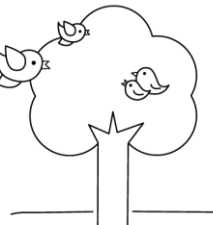
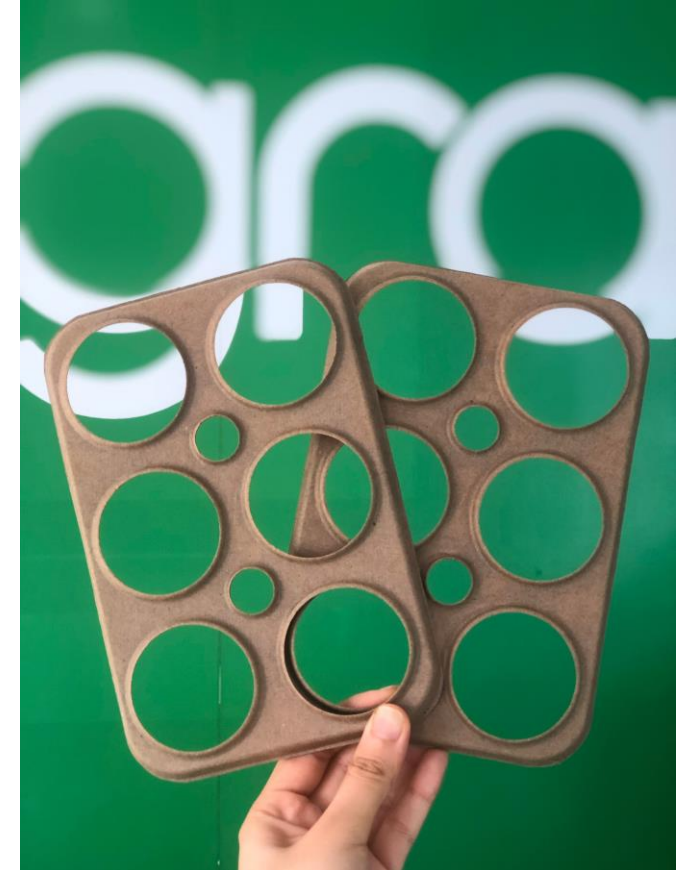


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Variety of Products Beverage Packaging



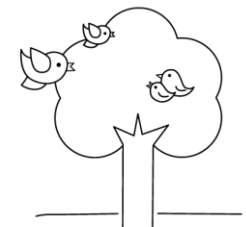
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Variety of Products

Frozen food - Ice-cream



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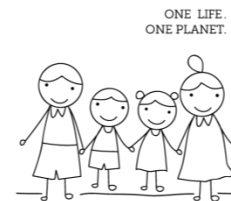
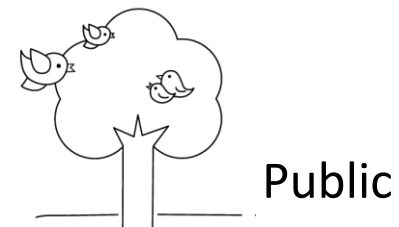
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Variety of Products Frozen food – Ready Meal



Functions

- Hot water (95-100 Celsius)
- Hot oil (120 Celsius)
- Microwavable (1300 watt for 5 minutes)
- Ovenable (200 Celsius for 30 minutes)
- Freezable (minus 40 Celsius/chilled 18 Celsius for 18 months)
- Product is topsealable



Variety of Products

Non-food packaging : Medical Equipment



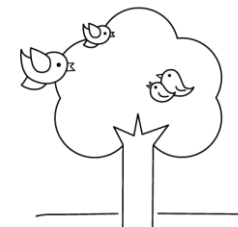
- MK01** Gracz Med Biodegradable Kidney Tray 8 inches
203.4x112x36 mm./ 400 ml.
- MK02** Gracz Med Biodegradable Kidney Tray 10 inches
255x124x43 mm./700 ml.



- MT02** Gracz Med
Biodegradable Medical Tray
20.5x14.5x1.3 cm

Variety of Products

Non-food packaging : Medical Equipment



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Variety of Products

Non-food packaging : Agriculture



Our Vision

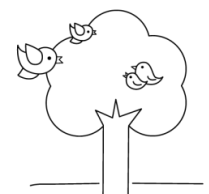
All lives live healthier in a safe natural environment

Our Mission

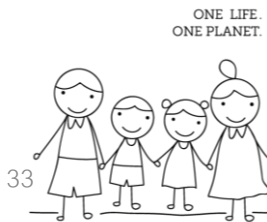
BPE creates nature to nature innovation by maximizing use of natural materials for healthier living while ensuring complete integration back to nature.
BPE offers innovative bio-renewable solutions for quality of life and safe environment.

Our Core Value

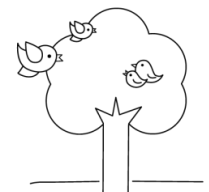
oHealth oEnvironment oTeam Spirit oInnovation oAccountable oPossibility



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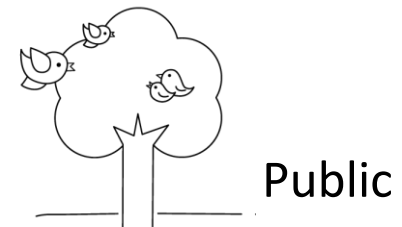


Our factory



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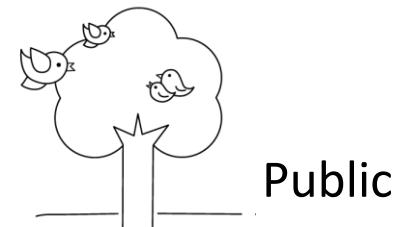
Certificates



One Life, One Planet



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Thank you

“All lives live healthier in a safe natural environment”



Dr. Weerachat Kittirattanapaiboon)



Public

