

Workshop on
『GREEN CUSTOMS for MSMEs』

GYEONGJU, REPUBLIC OF KOREA
FEB. 24 (MON) ~ 25 (TUE), 2025

Venue : Commodore Hotel Gyeongju for Opening, Presentations (Day1, Day2)
Venue : Gyeongju Hwabaek International Convention Center(HICO) for Day2 (Exhibition only)



LUNCH (1 HOUR 40 MINUTES)			
SESSION 3 CHALLENGES AND RESPONSES OF CUSTOMS AUTHORITIES RELATED TO GREEN CUSTOMS			
14:00-14:10	3.1	Presentation on Enforcement Cases of Illegal Import of Waste	China Jun XU
14:10-14:20	3.2	Presentation on Customs Clearance System for the Prevention of Illegal Timber Exports	Indonesia HiDayat ACHMAD
14:20-14:30	3.3	Presentation on Export Support Strategy for Products (palm oil) in Compliance with Regulations on Prevention of Deforestation	Malaysia Haizir RAZALI
14:30-14:40	3.4	Presentation on Circular Economy In Waste Management in Vietnam	Viet Nam Tuan Hung HA
14:40-14:50	3.5	Presentation on Transformative Bioprocesses: The Green Future of Contraband Cigarettes	Chile Raimundo BRAVO
14:50-15:00	3.6	Questions and Comments	Vice Chair
AFTERNOON BREAK (30 MINUTES)			
SESSION 4 SUPPLY CHAIN MANAGEMENT FOR SEAMLESS CROSS-BORDER MOVEMENT OF ENVIRONMENT-FRIENDLY PRODUCTS			
15:30-15:50	4.1	Presentation on Establishment of Infrastructure to Enhance Capacity of MSME Exporters Using FTAs	KCS Mr. Taeyong KIM
15:50-16:10	4.2	Presentation on Global waste trafficking: data and trend analysis	UNODC Ms. Muendao SUANDEE
16:10-16:20	Wrap Up of Workshop and Closing Remarks		Vice Chair
16:20-16:30	Post event survey		Vice Chair



DAY 1 (FEB. 24TH)

Venue : Commodore Hotel Gyeongju

TIME	TOPIC	PRESENTER
09:30-09:40	Opening remarks and Introduction of the program	SCCP Vice Chair
09:40-09:50	Welcoming remarks by the Director General of International Cooperation Bureau of Korea Customs Service	KCS
09:50-10:05	Introduction of participants and group photo	Workshop Organizers, Delegations, Guests
SESSION 1 ENVIRONMENTAL REGULATION ISSUES AND INTERNATIONAL RESPONSES		
10:05-10:25	1.1 Presentation of the project background & key contents	KSFTARO Mr. Sungchae KIM
10:25-10:50	1.2 Presentation on Introduction of the Green Customs Initiative and Green Customs Guide (video)	UNEP Mr. Alvin GACHIE
MORNING BREAK (30 MINUTES)		
11:20-11:40	1.3 Presentation on Impact of International Carbon Neutrality Issues on MSMEs & Support Strategies and Q&A	KIFP Mr. Taehyun OH
SESSION 2 CARBON NEUTRALITY STRATEGY AND IMPROVED CUSTOMS CLEARANCE		
11:40-12:00	2.1 Presentation on Strategy for Export Support for Eco-friendly and Upcycling Industry	KIOI Ms. Yunjin OH
12:00-12:20	2.2 Presentation on supporting MSME exporters to comply with environmental regulations	Naon Customs Corporation Mr. Sungho HONG



DAY 2 (FEB. 25TH)

Venue : Commodore Hotel Gyeongju for Presentations

Venue: Gyeongju Hwabaek International Convention Center(HICO) for Exhibition tour only

OPENING OF MEETING		Venue: Commodore Hotel
09:30-09:40	Opening and Recap of Day 1	
09:40-10:00	Comments from participants	
10:00-10:10	Video on innovative Customs technologies	
10:10-10:20	Introduction of the Customs Technology Exhibition	
10:20-10:40	Move to the exhibition hall	
SESSION 5: EXHIBITION TOUR AND DISCUSSION		Venue: HICO(3F)
10:40-11:40	Exhibition hall tour (Showcases are subject to change)	
5.1	Sharing KCS' experiences and best practices in utilization of Customs technologies:	
	• Showcase 1 : X-ray training program	
	• Showcase 2 : AI-based tracking system for high-risk passengers	
	• Showcase 3 : Passenger verification (facial recognition)	
	• Showcase 4 : 3D multi-function radiation detection system	
	• Showcase 5 : Virtual Reality (VR) Training system	
SESSION 6: GROUP DISCUSSION		
11:40-12:10	6.1 Group discussion and sharing outcome of the visit	
	• Member economies are invited to share their experiences, challenges, and best practices using innovative technologies to facilitate trade in their economies	
12:30-14:00	Lunch	

Workshop on 『Green Customs for MSMEs』

Gyeongju, Republic of Korea
Feb. 24(Mon)~25(Tue), 2025



Opening remarks and Introduction of the program

Welcoming remarks

Introduction of participants and group photo

SESSION 1: ENVIRONMENTAL REGULATION ISSUES AND INTERNATIONAL RESPONSES

1.1 Presentation of the project background & key contents

2025 APEC SCCP
Best Practices to Support MSME Exporters in
Implementing Environmental Regulations and
Achieving Sustainable Growth
- Project Background and Key Contents -
KSFTARO Sungchae, Kim
February 24th, 2025





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- 01 Background and Purpose of the Project
- 02 Carbon Neutrality Strategy and Improvement of Customs System
- 03 Challenges and Response Strategies of APEC Customs Authorities in Green Customs
- 04 Development of Experts on Carbon Neutrality Related Customs Officials (Reflected by Gender)

1. Background and Purpose of the Project

Background

- New initiatives on eco-friendly and decarbonized economy
 - ◆ EU CBAM (EU Carbon Border Adjustment Mechanism)
 - ◆ US CCA (US Clean Competition Act)
 - ◆ EU CSDD (EU Corporate Sustainability Due Diligence)
 - ◆ EUDR (EU Regulation on Deforestation-Free Products)
- Increasing importance for complying with carbon neutrality policies

1. Background and Purpose of the Project

Purpose

- The goal of the project
 - ◆ To support MSME's capability
 - ◆ To assist MSMEs in achieving net zero emissions of carbon
- The aim of the project is to discuss, study and share
 - ◆ How Customs Authorities can support MSMEs
 - ◆ APEC's strategies for responding to carbon neutrality policies

II. Carbon Neutrality Strategy & Improvement of Customs System

National Greenhouse Gas Reduction

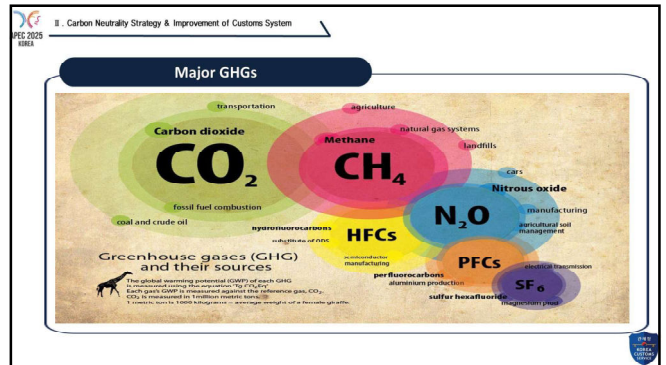
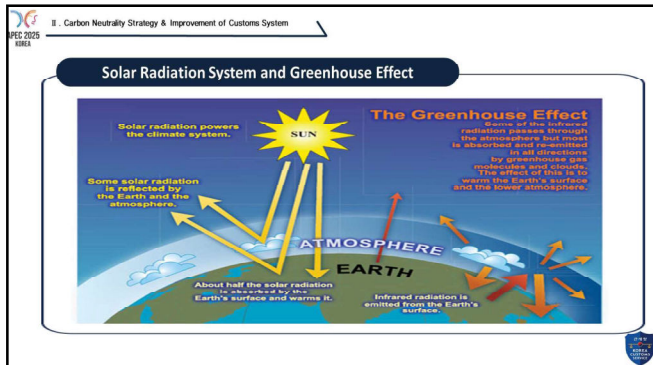
- World-wide consensus on Net Zero or Carbon Neutrality
- Suppressing temperature rise by 1.5° C compared to pre-industrial times
- To further strengthen the National Greenhouse Gas Reduction Target (NDC) in 2030
- Cross border issues

II. Carbon Neutrality Strategy & Improvement of Customs System

Current Status of GHG Reduction

- National Greenhouse Gas Reduction Target (NDC) as of Dec. 2024

Name of economy	Base Year	Reducing of GHG Compared to B.Year	Name of economy	Base Year	Reducing of GHG Compared to B.Year
Australia	2005	43 %	Bunei RN	2015	20 %
Canada	2005	40-45 %	Chile	2020	95 mtCO ₂ e or less
H.K./China	2002	60-70 %	Indonesia	2010	31.88+43.20 %
Japan	2013	48 %	Malaysia	2005	45 %
Mexico	2013	35-40 %	New Zealand	2005	50 %
Palaua NG	2015	78 %	Peru	-	30-40 %
Philippines	-	75 %	Russia	1990	70 %
Singapore	-	60 MtCO ₂ e or less	R. Korea	2018	40 %
Chinese Taipei	2015	20 %	Thailand	2005	30 %
U.S.A.	2005	50-52 %	Viet Nam	2014	15.8+43.5 %



II. Carbon Neutrality Strategy & Improvement of Customs System

Regulations on Net Zero

- **Limitation of manifesto or declaration**
 - ◆ UNFCCC, Paris Agreement, Climate club
- **CBAM, a tangible and active tool**
 - ◆ To suppress carbon leakage
 - ◆ Decreasing the price competitiveness of non-member economies
 - ◆ Reorganizing the trade structure by industry

II. Carbon Neutrality Strategy & Improvement of Customs System

Carbon Neutrality

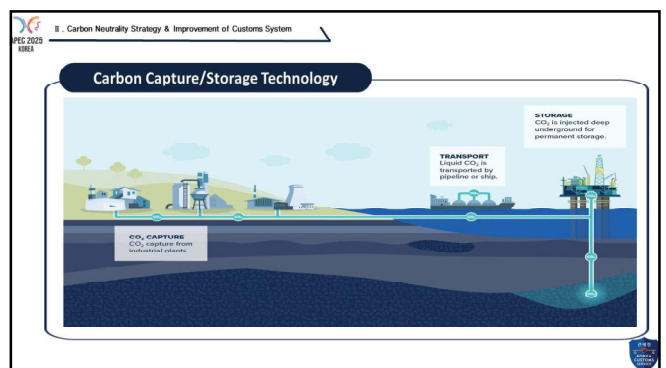
- **To ultimate zero carbon generation**
 - ◆ Reducing the generation of CO₂ and expanding absorption of generated CO₂
 - ◆ To develop carbon reduction/capture/storage technologies
- **A big challenge to MSME**
 - ◆ Policies and tools encouraging MSME to participate net zero
 - ◆ Government sponsorship, education and capacity building, assistance of ICT, certification and standardization, duty exemption and building a cooperation network

II. Carbon Neutrality Strategy & Improvement of Customs System

Subject to CBAM

- ◆ **Major items subject to carbon border tax**

Item name	HS Code	Related GHGs
Cement	2523.10, 2523.21, 2523.29, 2523.90	CO ₂
Fertilizer	2808.00	CO ₂ & N ₂ O
Steel	7301	CO ₂
Aluminium	7601	CO ₂ & PFCs



II. Carbon Neutrality Strategy & Improvement of Customs System

Photosynthesis of Green Plant

$$6\text{CO}_2 + 6\text{H}_2\text{O} \xrightarrow{\text{energy}} \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$$

The diagram illustrates the process of photosynthesis. A green plant is shown in a field. Arrows indicate the intake of carbon dioxide (CO₂) from the air and water (H₂O) from the soil. An arrow labeled 'energy' points from the sun to the plant. Arrows show the release of oxygen (O₂) into the air and sugar into the plant's leaves.

II. Carbon Neutrality Strategy & Improvement of Customs System

Preservation of Carbon Sink

- **Article 5 to the Paris Agreement**
 - ◆ To conserve and enhance sinks and reservoirs (e.g., forest) of greenhouse gases
 - ◆ Policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation
 - ◆ Sustainable management of forests and enhancement of forest carbon stocks in developing economies
 - ◆ Joint mitigation and adaptation approaches for the integral and sustainable management of forests
- **Increasing role of customs authorities to control the trade in illegal timbering**

II. Carbon Neutrality Strategy & Improvement of Customs System

EODES and Paperless Issuing of C.O.

- The needs of reducing/recycling paper in customs procedure
- Simplification of verification procedures for eco-friendly products
- Implementation of EODES in certification of origin
- Introduction of a paperless mobile electronic notice system in customs administration

III. Challenges and Response Strategies of APEC Customs Authorities in Green Customs

Multilateral Environment Agreements

Name of Agreement	Main Contents	Effective Year
Montreal Protocol	Regulation on the production and use of Ozone-Depleting Substance	Jan 1989
Basel Convention	Regulation on Import and Export of Hazardous Waste and Disposal	May 1992
Rotterdam Convention	Approval of prior notification in international trade of certain Hazardous Chemicals and Pesticides	Feb 2004
Stockholm Convention	Regulation of Persistent Organic Pollutants (POPs, pesticides, insecticides, herbicides, etc.)	May 2004
CITES Convention	Regulations on International Trade in Endangered Species of Wild Fauna and Flora	Jul 1975

III. Challenges and Response Strategies of APEC Customs Authorities in Green Customs

Montreal Protocol and GHG

The diagram illustrates the Montreal Protocol and its amendments. It shows the chemical structures of CFC (Chlorofluorocarbon), HCFC (Hydrochlorofluorocarbon), and HFC (Hydrofluorocarbon). The Montreal Protocol cycle is shown, indicating the transition from CFC to HCFC to HFC. The text 'adopted in 1987' is next to the CFC structure, '1997, Montreal Amendment' is next to the HCFC structure, and '2016, Kigali Amendment' is next to the HFC structure.

III. Challenges and Response Strategies of APEC Customs Authorities in Green Customs

Supply Chain Management

- **Eco-friendly and up-cycling industries**
- **Circular economy**
- **Sustainable management of economic values as well as social and environmental values**

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IV. Development of Experts on Carbon Neutrality Related Customs Officials (Reflected by Gender)

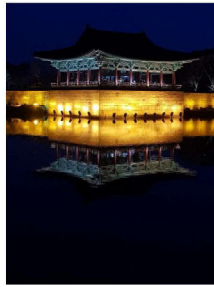
Fostering Experts

- **Article 12 to the Paris Agreement**
 - ◆ Cooperation between the parties on appropriate measures
 - ◆ To strengthen climate change education and training, public awareness, public participation, and public access to information
- **Need of women's economic integration in the APEC economy**
- **Promoting women's economic empowerment through the following pillars:**
 - ◆ Skills, capacity building, and health
 - ◆ Innovation and technology

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"Green Customs for MSMEs" Workshop / KSFTARO



Thank you

Sungchae Kim / sungchae.kim@pwc.com
Head of Korea HS Research Institute
PWC Customs Service Corporation

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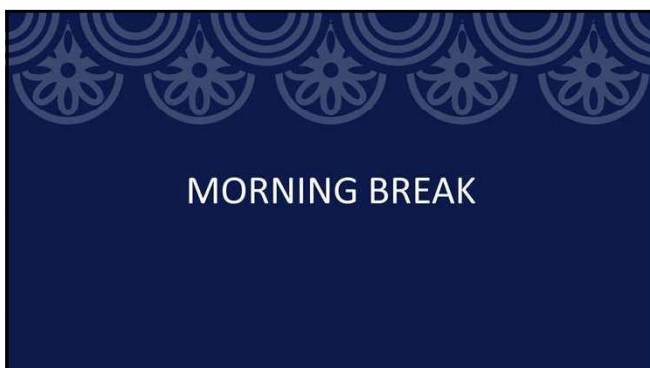
1.2 Presentation on Introduction of the Green Customs Initiative and Green Customs Guide (video)

UN environment programme

Green Customs Initiative: Guide to Multilateral Environmental Agreements

Asia-Pacific Economic Cooperation (APEC) Sub-Committee on Customs Procedures (SCCP)
Workshop on "Green Customs" for MSMEs
24 & 25 February 2025 Gyeongju, Republic of Korea

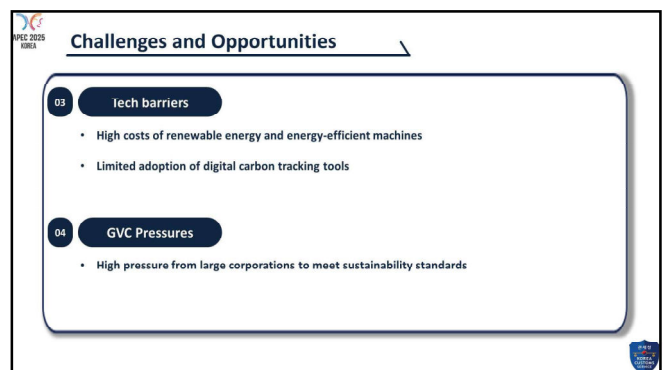
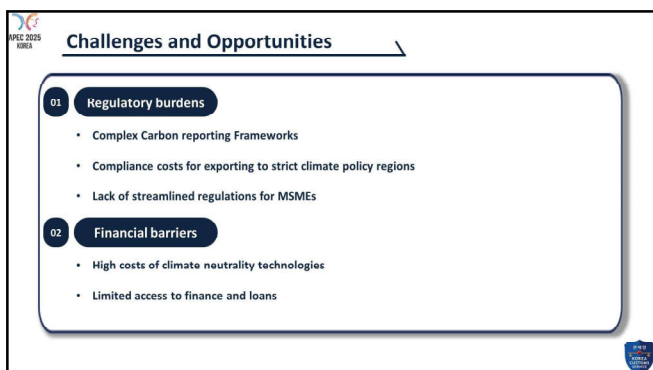
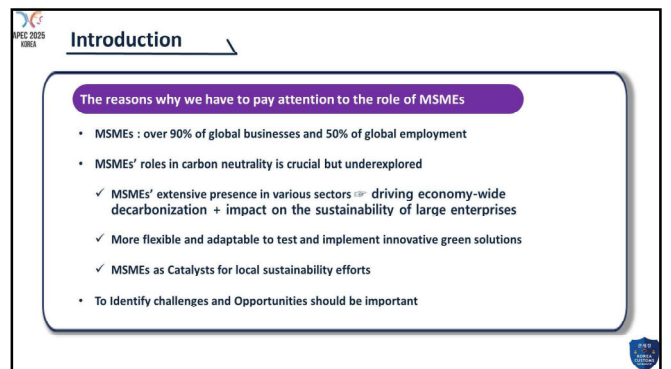
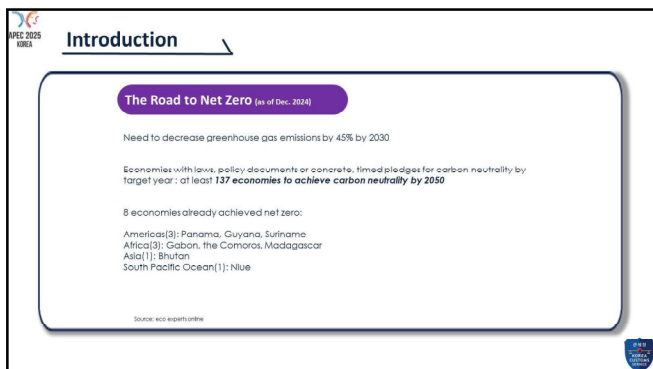
Alvin Gachie, Legal Officer
Green Customs Initiative Secretariat, UNEP Law Division

MORNING BREAK



1.3 Presentation on Impact of International Carbon Neutrality Issues on MSMEs & Support Strategies and Q&A



Challenges and Opportunities

01. Green financing

- Access to grants, subsidies, and low-interest loans
- Green Climate Fund(GCF) and Green Taxonomy
- Government-backed financial support programs

02. Market Competitiveness

- Growing consumer preference for sustainable business
- Enhancing brand reputation and business partnerships

Challenges and Opportunities

03. Tech and Digital Solutions

- Affordable energy management and carbon tracking software
- Circular economy and smart manufacturing

04. Gov. and Int'l Support

- A range of Tax Incentives
- Capacity building programs

Support Strategies

What should MSMEs do to tackle with climate neutrality?

- To measure carbon footprint
- To assess GVC risks
- To reduce overpackaging and energy consumption
- To develop Green Supply Chain Management
- To develop Green Technologies
- To Build Climate Awareness among Employees and Customers

Support Strategies

Major economies' policies

EU	US	UK
<ul style="list-style-type: none"> • Financial Support <ul style="list-style-type: none"> - Just Transition Fund - InvestEU - Loan Facility • Regulatory Simplification • Competitiveness Compass • European Innovation Council <ul style="list-style-type: none"> - Support startups and SMEs with high impact innovations • European Green Deal Industrial Plan 	<ul style="list-style-type: none"> • Federal Tax Credits <ul style="list-style-type: none"> - Investment Tax Credit - Production Tax Credit - Energy efficiency improvement Credit • IRA <ul style="list-style-type: none"> - Clean Electricity Tax Credits - Greenhouse Gas Reduction Fund 	<ul style="list-style-type: none"> • Business Climate Hub <ul style="list-style-type: none"> - Special depreciation and Tax Credits • Green Innovation Fund <ul style="list-style-type: none"> - SMEs committed to ambitious decarbonization targets • Localized Renewable Energy <ul style="list-style-type: none"> - Community based renewable projects • Support for R&D

Support Strategies

Major economies' policies

Korea	Japan	China
<ul style="list-style-type: none"> • Carbon neutrality advisory panel for SMEs <ul style="list-style-type: none"> - 13 experts from academia, industry and research • Voluntary Carbon Reduction Support System for SMEs <ul style="list-style-type: none"> - to respond proactively to international carbon regulations and trading guidelines • Climate Tech startups and ventures <ul style="list-style-type: none"> - to export technology and product demonstrations and resolving any regulatory obstacles 	<ul style="list-style-type: none"> • Tax Incentives <ul style="list-style-type: none"> - Special depreciation and Tax Credits • Green Innovation Fund <ul style="list-style-type: none"> - SMEs committed to ambitious decarbonization targets • Localized Renewable Energy <ul style="list-style-type: none"> - Community based renewable projects • Support for R&D 	<ul style="list-style-type: none"> • '1+N' Policy Framework <ul style="list-style-type: none"> - Tax and Investment Policies - green transformation • Circular economy promotion law <ul style="list-style-type: none"> - cleaner production methods, waste management and recycling • Green Technology Advancement <ul style="list-style-type: none"> - NDRC to call investment in equipment upgrades in energy transition

Conclusion

- MSMEs are critical to make global carbon neutrality
- Overcoming a range of challenges and utilizing various opportunities need financial and technological support
- Inter- and Intra national collaboration is prerequisite for carbon neutrality

SESSION 2: CARBON NEUTRALITY STRATEGY AND IMPROVED CUSTOMS CLEARANCE

2.1 Presentation on Strategy for Export Support for Eco-friendly and Upcycling Industry

2025 APEC SSCP Strategy for Export Support in the Eco-Friendly and Upcycling Industry

KIOI Senior researcher Yunjin, OH

February 24, 2025

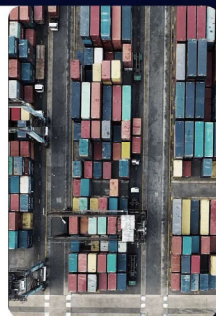


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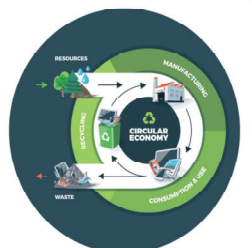
- 01 Background
- 02 The Upcycling Industry and Its Impact
- 03 Support Programs for Resource Circulation in Republic of Korea
- 04 Utilizing FTAs for Resource Circulation Goods
- 05 Conclusion



Contents

01 Background

- Importance of Carbon Neutrality and Circular Economy
 - Promotion of the 2050 Carbon Neutrality Goal and the Announcement of the EU Green Deal
 - Growing Interest in Climate Change Response and Sustainable Growth
- Growing Focus on the Eco-friendly and Upcycling Industry
 - Upcycled Products Based on Resource Circulation: Environmental Protection and Economic Value Creation
 - Governments Worldwide Are Expanding Policies to Promote the Resource Circulation Industry



Contents

02 The Upcycling Industry and Its Impact

- (1) Definition of Upcycling
 - Upcycling = 'Upgrade' + 'Recycle'
 - Incorporates Design and Innovation into Discarded Materials to Create Higher-Value Products
 - Unlike Recycling, Upcycling retains material quality and enhances its function and value
- (2) Impact of the Upcycling Industry
 - ☑ Reducing Greenhouse Gas Emissions
 - Burning 1 ton of waste emits 1.1 tons of CO₂
 - Upcycling reduces incineration & landfill waste, contributing to carbon neutrality
 - Helps long-term environmental sustainability



- ☑ Resource Circulation & Economic Value Creation
 - Transforms Discarded Resources into High Value Products
 - Encourages the Creation of Innovative Products (e.g., Upcycled Leather Wallets, Metal Lamps)
 - Encourages Environmentally Conscious Consumer Behavior

Contents

02 The Upcycling Industry and Its Impact

(3) Concept of Resource Circulation

- Minimizes waste generation & maximizes reuse & recycling
- Key terms in resource circulation:

Term	Definition
Reduction	Minimizing Resource Use and Waste Generation in the Production Process
Reuse	Extending the Lifespan of Materials by Using Them As-Is or After Repair
Remanufacturing	Disassembling, Repairing, and Reassembling Used Products to Restore or Enhance Performance
Material Recycling	Physically or Chemically Processing Waste Materials to Convert Them into New Raw Materials
Energy Recovery	Extracting Energy from Waste Through Combustion or Converting It into Energy-Producing Materials

Contents

03 Support Programs for Resource Circulation in Republic of Korea

GR (Good Recycled Product) Certification

GR Certification is to certify high-quality recycled products that meet performance, quality, and environmental standards. This program establishes comprehensive quality management throughout the production process to encourage resource reuse and eco-friendly product manufacturing.
* Operated by Ministry of Trade, Industry, and Energy

Good Remanufactured Product Certification

Good Remanufactured Product Certification is to evaluate and certify remanufactured products that maintain or exceed the original product's performance and quality. This program promotes resource efficiency by supporting the production of remanufactured goods that reduce energy consumption and extend product life.
* Operated by Ministry of Trade, Industry, and Energy

Allbaro System

Allbaro System is to manage and monitor the procedure of waste discharging to final disposal in real time through Internet. This is IT based waste integrated management system that can cause decreasing waste, recycling and RPD system.
* Operated by Ministry of Environment

Contents

04 Utilizing FTAs for Resource Circulation Goods

(1) Concept of Resource Circulation for lithium-ion battery

Term	Component	Description
Reuse	Battery Module and Battery Pack	Functional modules and cells are repaired or replaced with new ones.
Remanufacturing	Cooling System	Disassembled, cleaned, repaired, and reassembled to restore original or improved performance for reuse.
Material Recycling	Battery Pack	Disassembled to extract valuable metals (lithium, cobalt, nickel) for recycling as raw materials in new battery production.

Contents

04 Utilizing FTAs for Resource Circulation Goods

(2) Utilizing FTAs for Reused and Remanufactured Goods

Lithium-ion accumulator HS 8507.60

HS Code(HSK)	Description
8507	electric accumulators, including separator therefor, whether or not rectangular (including square).
8507 60	Lithium-ion accumulators
8507 60 20 00	for electric vehicles (including hybrid types)
8507 60 30 00	For energy storage systems (ESS)
8507 60 90 00	Other

Waste Lithium-ion accumulators HS 8549

HS Code(HSK)	Description
8549	Waste of electrical or electronic apparatus, including waste of accumulators.
8549 10	Waste of electrical or electronic apparatus, including waste of accumulators, of the heading 85.07, 85.08, 85.09, 85.10, 85.17, 85.18, 85.19, 85.21, 85.22, 85.23, 85.24, 85.25, 85.26, 85.27, 85.28, 85.29, 85.30, 85.31, 85.32, 85.33, 85.34, 85.35, 85.36, 85.37, 85.38, 85.39, 85.40, 85.41, 85.42, 85.43, 85.44, 85.45, 85.46, 85.47, 85.48, 85.49, 85.50, 85.51, 85.52, 85.53, 85.54, 85.55, 85.56, 85.57, 85.58, 85.59, 85.60, 85.61, 85.62, 85.63, 85.64, 85.65, 85.66, 85.67, 85.68, 85.69, 85.70, 85.71, 85.72, 85.73, 85.74, 85.75, 85.76, 85.77, 85.78, 85.79, 85.80, 85.81, 85.82, 85.83, 85.84, 85.85, 85.86, 85.87, 85.88, 85.89, 85.90, 85.91, 85.92, 85.93, 85.94, 85.95, 85.96, 85.97, 85.98, 85.99

HS 8507.60 Product Specific Rule of origin by Major Agreements

Region	Rule of Origin
ASEAN	CTH or RVC 40
China	CTH
Indonesia	CTH or RVC 40
RCEP	CTH or RVC 40
EFTA	CTH or MC60
EU	CTH or MC45
UK/US	CTH or MC45
UK	CTH or MC45
USA	CTH
Canada	CTH or MC55

Contents

04 Utilizing FTAs for Resource Circulation Goods

(2) Utilizing FTAs for Reused and Remanufactured Goods

■ Article on Goods Wholly Obtained or Produced (WOP: Wholly Obtained Rule)

Used Goods and Waste (Scrap)

Region	Rule of Origin
KOR-ASEAN	Articles collected from those which can no longer perform their original purpose are not eligible of being restored or repaired and are fit only for the disposal or recovery of parts of raw materials, or for recycling purposes.
KOR-Indonesia	Articles collected from those which can no longer perform their original purpose are not eligible of being restored or repaired and are fit only for the disposal or recovery of parts of raw materials, or for recycling purposes.
KOR-China	Scrap and waste derived from manufacturing or processing operations in a Party, which are fit only for the recovery of raw materials or which are to be utilized as raw material for the production of another good, or used goods consumed and collected in a Party provided that such goods are fit only for the recovery of raw materials.

When applying the Change in Tariff Classification (C-I-C) criterion, if the final EV battery cannot be proven as an originating good, it may not satisfy the Product-Specific Rule of Origin (PSR).

WOP (Wholly Obtained Rule) Not Satisfied

FTA-inapplicable

Contents

04 Utilizing FTAs for Resource Circulation Goods

(3) Utilizing FTAs for Recycled Goods

■ Article on Goods Wholly Obtained or Produced (WOP: Wholly Obtained Rule)

Used Goods and Waste (Scrap)

Region	Rule of Origin
KOR-ASEAN	Articles collected from those which can no longer perform their original purpose are not eligible of being restored or repaired and are fit only for the disposal or recovery of parts of raw materials, or for recycling purposes.
KOR-Indonesia	Articles collected from those which can no longer perform their original purpose are not eligible of being restored or repaired and are fit only for the disposal or recovery of parts of raw materials, or for recycling purposes.
KOR-China	Scrap and waste derived from manufacturing or processing operations in a Party, which are fit only for the recovery of raw materials or which are to be utilized as raw material for the production of another good, or used goods consumed and collected in a Party provided that such goods are fit only for the recovery of raw materials.

EV battery pack (waste and used goods) from domestic production and consumption, used for raw material recovery

Inspective of their initial origin

WOP (Wholly Obtained Rule) Satisfied

FTA-applicable

Conclusion

05 Conclusion

■ Article on Goods Wholly Obtained or Produced (WOO : Wholly Obtained Rule) : Used Goods and Waste (Scrap)

Agreement	Regulation
KOREA-USA	<ul style="list-style-type: none"> waste and scrap derived from: <ul style="list-style-type: none"> (i) manufacturing or processing operations in the territory of one or both of the Parties; or (ii) used goods collected in the territory of one or both of the Parties, provided such goods are fit only for the recovery of raw materials; recovered goods derived in the territory of one or both of the Parties from used goods and utilized in the territory of one or both of the Parties in the production of remanufactured goods; and
KOREA-CANADA	<ul style="list-style-type: none"> components recovered from used goods collected in the territory of one or both of the Parties, provided that the used goods are fit only for such recovery and the components recovered therefrom have undergone a process necessary to ensure their good working condition; and
Other FTAs	Articles collected from them which can no longer perform their original purpose nor are capable of being restored or repaired and are fit only for the disposal as recovery of parts as new materials, or for recycling purposes

☒ Only Korea's FTAs with the United States and Canada explicitly define remanufacturing
☒ As the resource circulation industry expands, FTA revisions and policy updates are needed to accommodate emerging technologies

Conclusion

Reference Business Support for Carbon Neutrality and Green Transition

■ Research on FTA Implementation methods for recycled/upcycled products

- (Upcycled Products) Support for Item Classification and Fulfillment of Origin Criteria for Waste Resources
- (Remanufactured Products) Streamlining the Request Process for Certificate of Origin (CoO) Issuance
- (Second-Hand Products) Discussing FTA Implementation and Revising Origin Criteria with FTA Partners

 ■ Business/product-specific support in accordance with major carbon neutrality measures

- Providing Assistance Through Import and Export Business Support Centers at Regional Customs, Offering Consultations for the Domestic Export Industry on Carbon Tax Implementation and Academic Research

Korea Institute of Origin Information (KIOI)
관세청
KOREA CUSTOMS SERVICE

Yunjin, OH

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2.2 Presentation on supporting MSME exporters to comply with environmental regulations

2025 APEC SSCP

Supporting MSME Exporters to Comply with Environmental Regulations

Naon Customs Corporation Sunggho, Hong

February 24, 2025



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01. Introduction

MSMEs' Importance

- MSMEs drive trade and job creation, making up over 90% of APEC businesses and playing a key role in global supply chains.

Sustainability Challenges

- As sustainability gains importance, MSMEs struggle with compliance due to financial constraints and complex regulations.

Barriers to Compliance

- Limited resources and evolving policies create major barriers, especially in manufacturing, logistics, and raw materials.

02. Current Landscape

01 Regulatory Inconsistencies

Environmental regulations vary across economies, making compliance difficult for MSMEs that lack resources to track evolving requirements.

02 Financial & Technical Barriers

High costs and lack of access to green financing prevent MSMEs from adopting sustainable practices and obtaining necessary certifications.

03 Supply Chain Pressure

Multinational corporations demand stricter environmental compliance, forcing MSMEs to meet sustainability criteria or risk exclusion from supply chains.

04 Administrative Burden

Extensive documentation requirements create administrative burdens, with many MSMEs lacking digital tools to streamline compliance.

05 Awareness Gap

Many MSMEs are unaware of environmental regulations until trade restrictions impact them, highlighting the need for better education and outreach.

03. Key MEA-Related Regulations

01 Montreal Protocol

Regulates ozone-depleting substances, requiring to adopt eco-friendly alternatives.

02 Basel Convention

Controls hazardous waste movement, enforcing strict disposal and tracking standards.

03 Rotterdam Convention

Requires consent for hazardous chemical trade, affecting agriculture and chemical industries.

04 Stockholm Convention

Restricts persistent organic pollutants (POPs) in pesticides and industrial chemicals.

05 CITES

Regulates trade in endangered species and natural materials to protect biodiversity.

06 UNFCCC & Paris Agreement

Sets global carbon reduction targets, impacting MSME compliance for exports.

04. The Role of Customs in Supporting MSMEs

01 Clear Compliance Guidance

Customs authorities should provide MSMEs with simplified compliance guidelines, online resources, and training sessions.

02 Efficient Regulatory Processes

Streamlining certification, reporting, and documentation through digital platforms can reduce MSMEs' administrative burdens.

03 Risk-Based Compliance

Risk-based compliance frameworks should differentiate requirements based on industry type and company size.

04 Incentivizing Compliance

Incentives such as expedited clearance and tax benefits can encourage voluntary environmental compliance.

05 Inter-Agency Collaboration

Collaboration between Customs, environmental agencies, and industry groups can create unified regulatory support for MSMEs.

05. Best Practices and Global Initiatives

1) Korean Best Practices

Korea's CBAM Support Center

- Provides MSMEs with carbon accounting and trade compliance support to meet EU regulations.

One-Stop Origin Management System

- Simplifies FTA origin certification through digital integration, reducing administrative burdens.

Allbaro Waste Management System

- Ensures transparent waste tracking and compliance with environmental regulations.

05. Best Practices and Global Initiatives

2) APEC & International Customs Initiatives

WCO Green Customs Strategy

- Strengthens regulatory enforcement and cooperation to combat environmental trade violations.

Carbon Pricing Mechanisms

- Encourages lower emissions through carbon taxes and emissions trading schemes.

AI & Emerging Technologies

- Uses AI, blockchain, and IoT to enhance compliance monitoring and trade transparency.

06. Considerations for Strengthening MSME Support

01 Enhancing Regulatory Coherence

- 1) Smart Regulation Models – Adaptive compliance frameworks based on firm size and risk level can reduce burdens on MSMEs.
- 2) Regulatory Sandbox – A controlled testing environment for MSMEs to trial compliance solutions before full implementation.

02 Leveraging Technology & Public Private Collaboration

- 1) AI & Predictive Analytics – Enhancing customs clearance with AI-driven risk assessments to mitigate compliance risks.
- 2) Blockchain for Certification – Providing transparent and tamper-proof verification of sustainability claims.

03 Green Trade Facilitation for MSMEs

- 1) Sector-Specific Roadmaps – Developing tailored compliance strategies based on industry needs.
- 2) Peer Knowledge-Sharing Networks – Encouraging MSMEs to exchange best practices for sustainability compliance.



07. Conclusion

MSMEs & Competitive Advantage

- MSMEs can turn environmental compliance into a competitive advantage by aligning with global sustainability standards.

Role of Customs Authorities

- Customs authorities play a key role in supporting MSMEs through education, digitalization, and regulatory harmonization.

Collaboration for Green Trade

- Strengthening collaboration across industries and economies will create a more inclusive and resilient green trade ecosystem.




 **Combating Solid Waste Smuggling – China Customs' Efforts**

Jun XU
Director
February 2025

Introduction

- Firm stance against solid waste smuggling
- Strengthening enforcement through targeted operations
- Coordination with domestic and international agencies
- Examples: Operation "National Sword," "Blue Sky," and "Guardian"

Four Smuggling Cases of Solid Waste Targeted by China Customs

Case 1 - Shanghai Customs District Municipal Waste

Date: 24 May, 2024
Location: Shanghai
Waste: Municipal Waste

A total of 148 containers, weighing over 3,000 tons, were involved in the case. Among the seized solid waste, besides shredded plastic waste, there were also 20 containers—nearly 500 tons—of household garbage. This marks the first case of its kind handled by the Shanghai Customs Anti-Smuggling Bureau.

Case 2 - Xiamen Customs District Recycled Kraft Paper

Date: May 8, 2024
Location: Xiamen
Waste: Recycled Kraft Paper

A Xiamen-based international trade company declared a batch of recycled kraft paper to Customs under general trade, listing a total quantity of 256.76 tons. Upon inspection, some of the paper was found to be scattered, waterlogged, dirty, damaged, moldy, or severely deformed. After assessment, 36 rolls—totaling 65.57 tons—were identified as solid waste.

Case 3 - Guangzhou Customs District Used Electronic Equipment

Date: 2023 - 2025
Location: Guangzhou
Waste: Used Electronic Equipment

Seizing 104.41 tons of prohibited items, including used computer power supplies, hard drives, optical drives, and used iPad screens. The Guangzhou Customs Anti-Smuggling Bureau has successfully dismantled a smuggling network that included cargo owners, middlemen, and suspects handling Customs clearance. The criminal group purchased second-hand electronic devices abroad, transported them to third countries for disassembly and repackaging, and then smuggled them into China using false and disguising declarations.

Case 4 - Jiangmen Customs District Waste Ships

Date: April 2, 2024
Location: Jiangmen
Waste: Waste Ships

A total of 18 suspects were arrested, three fishing vessels used for towing smuggled waste were seized, and four smuggled waste ships—two of which had already been partially dismantled—were confiscated from three shipbreaking yards. The total weight of these vessels exceeded 2,000 tons. This operation successfully dismantled two criminal groups involved in the smuggling, towing, dismantling, and illegal resale of decommissioned ships, eliminating an entire network responsible for the illegal trade, transportation, storage, and sale of maritime waste.

Key Trends in Solid Waste Smuggling Emerge

- Growing organized criminal networks
- Advanced tactics: false declarations, third-country transshipment
- International cooperation needed for enforcement

China Customs' Multi-Pronged Approach

- Administrative penalties
- Criminal crackdowns
- Technology-driven enforcement
- Integrated governance
- Cross-border enforcement cooperation

Year 2021-2023

- Launched 318 criminal investigation
- Seizing a total of 212,500 tons of illegal waste

Strengthening Green Trade & SME Development

Fostering a fair competitive environment for SMEs

Promote resource efficiency, environmentally friendly production processes

Achieving sustainable growth in green trade

Future Actions

Strengthen Global Cooperation

Initiate Operation DEMETER with WCO

Look forward to your continued participation and support!



Travel alone, travel fast
Travel together, travel afar

THANK YOU !

xujun@customs.gov.cn
February 2025

3.2 Presentation on Customs Clearance System for the Prevention of Illegal Timber Exports

Indonesian Customs Clearance System for the Prevention of Illegal Timber Export



Workshop on Green Customs for MSMEs and Exhibition of Customs Technologies (SCCP_202_2024A)
Gyeongju, Republic of Korea, 24-25 February 2025



Achmad Hidayat
Directorate of International Affairs,
Directorate General of Customs and Excise
Ministry of Finance of The Republic of Indonesia


OUTLINE

- 1 INTRODUCTION
- 2 INDONESIAN CUSTOMS EXPORT PROVISIONS
- 3 CUSTOMS EXPORT CONTROLLING SYSTEM FOR WOOD COMMODITY
- 4 SOME CASES OF ILLEGAL TIMBER EXPORT




DIREKTORAT JENDERAL BEA DAN CUKAI
2


1. Overview of DGCE's Main Functions




Trade Facilitation



Industrial Assistance



Revenue Collection




Community Protection

Providing trade facilities to create a more conducive trade environment

Supporting domestic industries, with the aim of achieving a competitive advantage to compete in the international market

Optimizing state revenue in the customs and excise sector

Guarding borders and protecting the Indonesian territory from smuggling and illegal trade



DIREKTORAT JENDERAL BEA DAN CUKAI
4

2. Indonesian Customs Export Provision

Article 1 par. 14 Indonesian Customs Law No. 17 Year 2006
"Activity of removing goods from the customs territory"

Export Definition

Article 2 par. (2) Indonesian Customs Law No. 17 Year 2006

Goods that have been loaded onto a Means of Transport for Removal from the Customs Area are considered to have been exported and are treated as export goods



DIREKTORAT JENDERAL BEA DAN CUKAI
4

2. Indonesian Customs Export Provision

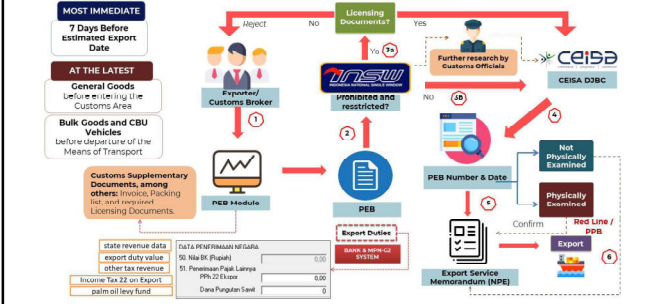
Basic Principles Of Customs Export Provisions


- 1 **EXPORT DOCUMENT SUBMISSION (PEB)**
- 2 **FULFILLING THE PROHIBITION AND RESTRICTIONS REQ.**
- 3 **EXPORT DUTIES PAYMENT**



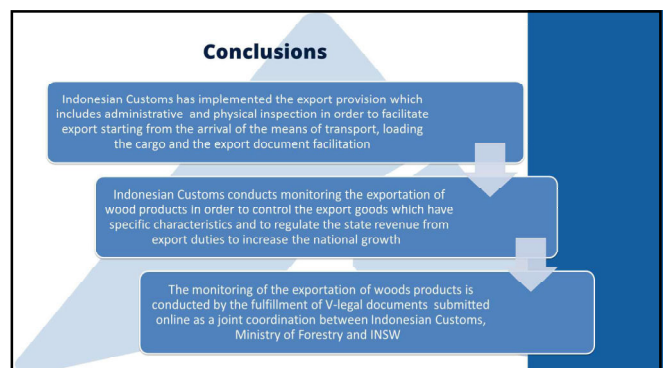
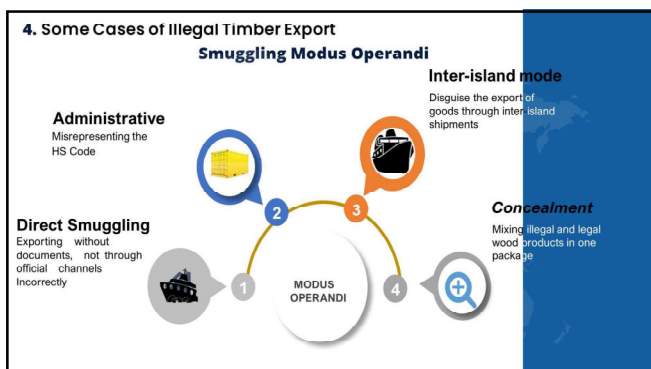
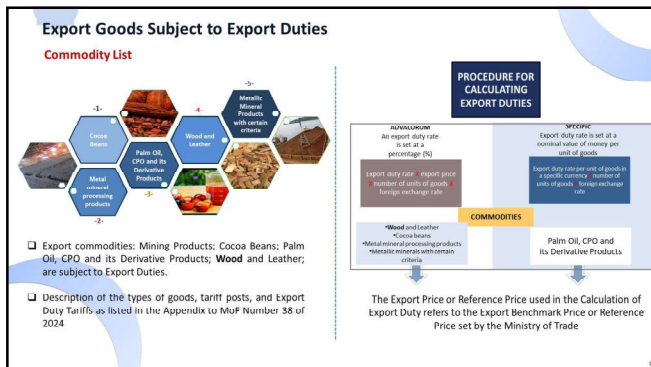
DIREKTORAT JENDERAL BEA DAN CUKAI
5

EXPORT CUSTOMS SERVICE PROCESS





DIREKTORAT JENDERAL BEA DAN CUKAI
6



THANK YOU

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@beacukaiinternasional



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3.3 Presentation on Export Support Strategy for Products (palm oil) in Compliance with Regulations on Prevention of Deforestation



Export Support Strategy For Products (Palm Oil) In Compliance With Regulations On Prevention Of Deforestation

RAZALI BIN HAZIR
Royal Malaysian Customs Department (RMCD)



VISION

Safeguarding The Economy & Securing The Frontier Towards Progressive Economy

MISSION

Responsive On Revenue Collection, Trade Facilitation & Border Control Through Integration Of Society & Technology

- ♦ **Royal Malaysian Customs Department (RMCD)** is the government agency under Ministry of Finance, Malaysia
- ♦ **Responsible** for administrating the economy's indirect tax policy, border protection & control and enforcing laws pursuant to prohibited goods.

21-Feb-25

Palm Oil and Deforestation



- Palm oil is a major agricultural export for Malaysia
- Lead to extensive deforestation, particularly in tropical rainforests

Biodiversity

Destroying habitats

Climate change

Contributes to climate change through increased carbon emissions

Harms

Harms indigenous communities

21-Feb-25

Export Controls as a Tool for Sustainability



Certified Sustainable Palm Oil (CSPO) Requirement

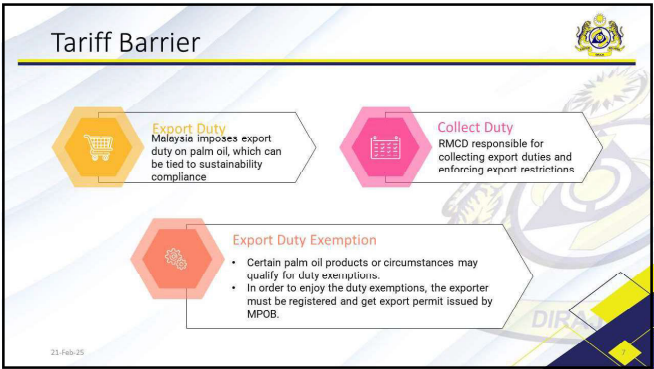
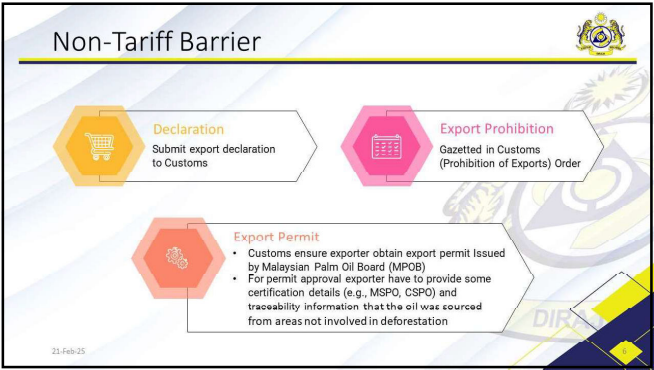
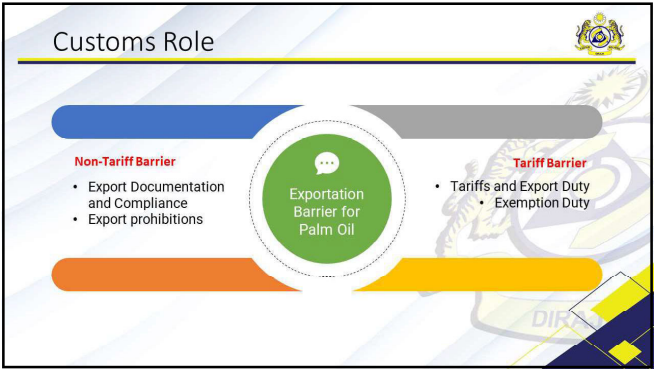
- These standards aim to reduce deforestation and promote environmental responsibility.
- Pushes companies to adopt more sustainable practices in order to access lucrative international markets.

Malaysian Palm Oil Certification (MSPQ)

- The certification helps ensure that the palm oil produced in the economy is not linked to deforestation, land grabbing, or environmental damage.
- Making compliance a practical requirement for businesses/exporter.

Traceability and Transparency

- To ensure that only sustainable palm oil, traceable to certified sources, is allowed to export.
- Prevent deforestation by requiring that palm oil exports come from plantations that adhere to environmental and social standards



Tiered Export Duty System

The export duty on crude palm oil (CPO) is structured according to the average price of CPO over a certain period (typically a month).

The duty is imposed on a sliding scale, meaning the higher the price of CPO, the higher the export duty rate. Conversely, when the price of CPO drops below a certain threshold, the export duty may be reduced or eliminated.

No.	CPO Price (MYR per metric ton)	Export Duty Rate
1.	<2,250	NIL
2.	2,250 – 2,400	3.0%
3.	2,401 – 2,550	4.5%
4.	2,551 – 2,700	5.0%
5.	2,701 – 2,850	5.5%
6.	2,851 – 3,000	6.0%
7.	3,000 – 3,150	6.5%
8.	3,151 – 3,300	7.0%
9.	3,301 – 3,450	7.5%
10.	3,451 – 3,600	8.0%
11.	3,601 – 3,750	8.5%
12.	3,751 – 3,900	9.0%
13.	3,901 – 4,050	9.5%
14.	>4,050	10.0%

Current Export Duty Rates (As of 2025)



3.4 Presentation on Circular Economy in Waste Management in Vietnam



CONTENT

Law on waste material

Law on environmental protection 2020

Penalties for offences against regulations on environment

Imported waste and circular economy

Regulations on environmental protection 2020

Regulations in the Decree 08/2022/ND-CP

Inter-sectoral coordination on waste management

Customs

Environmental Police

REGULATIONS OF ENVIRONMENTAL PROTECTION LAW

DEFINITION

- "Waste" means material recovered, classified, selected from other materials and products discarded during production, business operation, service provision or consumption activities to use as raw materials for another production process (Clause 8, Article 3).
- "Waste" means material in a solid, liquid, gas or other form which is discharged from production, business operation, service provision, living activities or from other activities (Clause 18, Article 3).

PROHIBITED ACTS

- Import, temporary import, re-export, and transit of waste from abroad in any form
- Illegally import used vehicles, machinery and equipment for demolition and recycling.

LAW ON WASTE MATERIAL

REGULATIONS OF ENVIRONMENTAL PROTECTION LAW

ENVIRONMENTAL PROTECTION IN IMPORT, TEMPORARY IMPORT, RE-EXPORT AND TRANSIT OF GOODS (Article 70)

1. Organizations and individuals shall not import the following machinery, equipment, vehicles, raw materials, scrap, and goods:

- Used machinery, equipment and vehicles for demolition, except for the cases specified in Clause 2 of this Article;
- Machinery, equipment, vehicles, goods, raw materials, and scrap contaminated with radioactive substances, disease-causing germs, and other toxins that have not been cleaned or are unable to be cleaned.

LAW ON WASTE MATERIAL

REGULATIONS OF ENVIRONMENTAL PROTECTION LAW

ENVIRONMENTAL PROTECTION IN IMPORTING WASTE FROM ABROAD (Article 71)

- Meet environmental technical regulations
- Have environmental license
- Organizations and individuals importing waste from abroad as production materials must deposit an environmental protection fund (This is a new regulation of the Law on Environmental Protection 2020)

LAW ON WASTE MATERIAL

REGULATIONS OF ENVIRONMENTAL PROTECTION LAW

ENVIRONMENTAL TECHNICAL REGULATIONS FOR IMPORTED WASTE AS PRODUCTION MATERIALS

- Environmental technical regulations on the management of waste imported as raw production materials (Article 97)
- Principles for developing and applying environmental technical regulations on waste, waste management, and management of scrap imported from abroad as production materials (Article 99)
- Requirements for technical regulations on waste, waste management, and management of scrap imported from abroad as raw production materials (Article 101)

LAW ON WASTE MATERIAL

DECISION NO 13/2023/QĐ-TTĐ ON PROMULGATION OF THE LIST OF WASTE PERMITTED FOR IMPORT AS PRODUCTION MATERIALS

TOTAL 21 TYPES

- Scrap iron, steel, cast iron (06 types)
- Plastic scrap (05 types)
- Paper scraps (03 types) - reduced by 1 compared to the old list
(Recovered paper or paperboard (scrap and scrap). Other, including unsorted scrap and scrap) - HS code 47079000
- Scrap glass (01 type)
- Non-ferrous metal scrap (06 types)
- Granulated Blast Furnace Slag (GBFS): Granular slag (sand sand) from the iron or steel industry (blast furnace slag includes: small granular slag, sand slag from the iron, iron and steel industry) - HS code 26180000

LAW ON WASTE MATERIAL

HANDLING OF CRIMINAL VIOLATIONS

Article 188 - Smuggling **Individual:** Fine, Prison ; **Legal Entity:** prohibited from business

Article 236 - Crime of violating regulations on hazardous waste management **Individual:** Fine, Prison.

Article 239 - Crime of transporting waste into Vietnamese territory **Individual:** Fine; **Legal Entity:** Fine, prohibited from business

LAW ON WASTE MATERIAL

HANDLING OF ADMINISTRATIVE VIOLATIONS (DECREE NO 45/2022/NĐ-CP)

Article 35 Violation of regulations on environmental protection in importing scrap from abroad

Principal penalties

- Principal penalties and fines: Fine up to 1 billion VND;
- Additional penalties: Confiscation of valuable products after destruction;
- Suspension of operations for a maximum period of up to 12 months

Remedial measures

- Forced re-export or destruction;
- Forced to pay costs for appraisal, inspection, measurement and analysis of environmental samples in case of violations of scrap import
- Forced to take measures to overcome environmental pollution.

LAW ON WASTE MATERIAL

SOME ILLEGALLY IMPORTED WASTE INTO VIETNAM

Plastic waste



Paper, cardboard waste



Solid waste (transport components, aluminium and copper scrap...)



E-waste



- Iron and steel scrap imported from the United States, Brazil, Hong Kong, China, Japan, Korea, Macau, Singapore;
- Paper scraps are imported from the United States, Sweden, Norway, the Netherlands, Greece, Morocco, Germany, Italy, Australia, Japan, Thailand, Singapore;
- Plastic scraps are imported from Canada, Korea, Japan, Hong Kong, China, Chinese Taipei;
- Aluminum and copper scrap imported from Thailand and Malaysia;



Waste import is mainly concentrated at the border gates: Saigon Port, Hai Phong Port and Ba Ria - Vung Tau.

REGULATIONS ON CIRCULAR ECONOMY IN THE ENVIRONMENTAL PROTECTION LAW

Policy on environmental protection Integrate and promote circular economy and green economic models in building and implementing strategies, planning, plans, programs, schemes, and projects for socio-economic development

Circular Economy Economic model aim to reduce the exploitation of raw materials, extend product life cycles, limit waste generation and minimize negative impacts on the environment

IMPORTED WASTE AND CIRCULAR ECONOMY

Integrate and promote circular economy and green economic models in building and implementing strategies, planning, plans, programs, schemes, and projects for socio-economic development

Economic model aim to reduce the exploitation of raw materials, extend product life cycles, limit waste generation and minimize negative impacts on the environment

IMPORTED WASTE AND CIRCULAR ECONOMY

REGULATIONS ON CIRCULAR ECONOMY

ENCOURAGING THE IMPLEMENTATION OF CIRCULAR ECONOMY

3. Vietnam Government encourages the circular economic development activities:

- a) Research and develop technology and technical solutions, provide services and evaluate the implementation of circular economy according to the provisions of law;
- b) Develop linked models and share the circular use of products and waste
- c) Apply industrial symbiosis measures
- d) Develop markets for reusing discarded products and recycling waste;
- e) Mobilize resources in society to implement circular economy according to the provisions of law;
- f) International cooperation, exchange of experience, knowledge and technology on circular economy according to the provisions of law

IMPORTED WASTE AND CIRCULAR ECONOMY

3. Vietnam Government encourages the circular economic development activities:

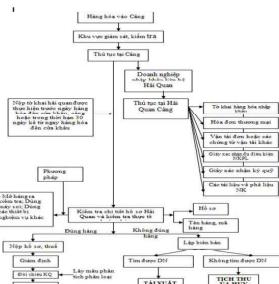
- a) Research and develop technology and technical solutions, provide services and evaluate the implementation of circular economy according to the provisions of law;
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IMPORTED WASTE AND CIRCULAR ECONOMY

[illegible]

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graph LR
    A((Arrival at port)) --> B((Customs Procedures))
    B --> C((Clearance))
  
```



INTER-SECTORAL COORDINATION

```
graph TD; A["- Difficult or impossible to identify the violator.  
- Cannot bind the carrier or consignor, so it is difficult to impose responsibility on those transporting goods that cause environmental pollution out of Vietnamese territory."] --> B["Economies exporting violating goods will not receive back lots of scrap goods that do not meet national technical regulations on environment."]; B --> C["The consignee in Vietnam refused to receive the goods, and the consignor abroad could not be contacted, so transporting goods out of territory faced many difficulties."]; C --> D["INTER-SECTORAL COORDINATION"]
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DIFFICULTIES IN CUSTOMS CONTROL

- Difficult or impossible to identify the violator.
- Cannot bind the carrier or consignor, so it is difficult to impose responsibility on those transporting goods that cause environmental pollution out of Vietnamese territory.

Economies exporting violating goods will not receive back lots of scrap goods that do not meet national technical regulations on environment.

The consignee in Vietnam refused to receive the goods, and the consignor abroad could not be contacted, so transporting goods out of territory faced many difficulties.

INTER-SECTORAL COORDINATION

- Economies exporting violating goods will not receive back lots of scrap goods that do not meet national technical regulations on environment.

The consignee in Vietnam refused to receive the goods, and the consignor abroad could not be contacted, so transporting goods out of territory faced many difficulties.

INTER-SECTORAL COORDINATION

WASTE TRAFFICKING CASES IN VIETNAM

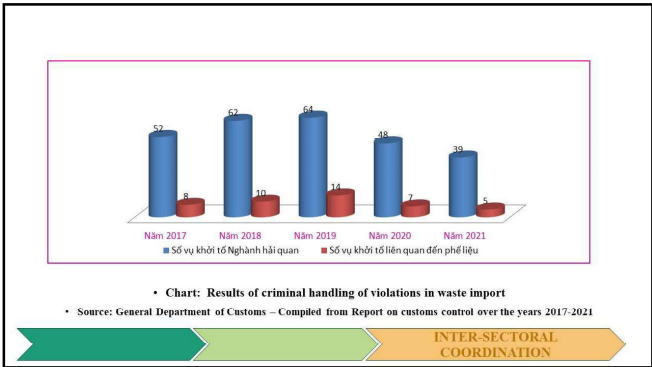
In 2018, Vietnam Customs prosecuted nearly 10 cases related to waste smuggling.

In 2022, 04 cases of the Anti-Smuggling Investigation Department of the General Department of Customs related to the illegal import of plastic waste into Vietnam. Among them, 01 case was prosecuted and transferred to the competent investigation agency to handle.

INTER-SECTORAL COORDINATION

In 2022, 04 cases of the Anti-Smuggling Investigation Department of the General Department of Customs related to the illegal import of plastic waste into Vietnam. Among them, 01 case was prosecuted and transferred to the competent investigation agency to handle.

INTER-SECTORAL COORDINATION



* Source: General Department of Customs – Compiled from Report on customs control over the years 2017-2021

INTER-SECTORAL COORDINATION



3.5 Presentation on Transformative Bioprocesses: The Green Future of Contraband Cigarettes

Transformative Bioprocesses: The Green Future of Contraband Cigarettes

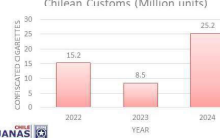
Application of Biological Transformation Technology for Contraband Cigarettes through a Microorganism-Based Bioprocess



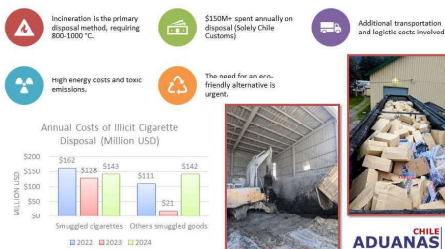
Illicit cigarettes: The problem at hand

- Contraband cigarettes are a growing issue in many economies, including Chile.
- Fiscal losses + environmental challenges = Need for innovation

Cigarette packs confiscated by Chilean Customs (Million units)



Economic cost of disposal





Environmental & Social Impact

- Incineration = toxic fumes + Greenhouse gases.
- Contraband fuels organized crime and weakens public health efforts.
- Smuggled cigarettes contain higher levels of harmful substances.
- Need for a sustainable, cost-effective disposal method.




An innovative Solution








A microorganism-based bioprocess to transform cigarette waste into compost:

- Biodegradation using specialized microorganisms (fungi).
- Sustainable, scalable, and aligned with circular economy principles





How it works

Collection & Sorting


Seized cigarettes are prepared.

Microbial Degradation


Specialized strains break down tobacco waste.


Conversion & Repurposing


Biomass is transformed into compost.



 Successfully tested with textiles—proven to improve soil quality.

Key Advantages




Sustainability – Eliminates incineration, reduces emissions.


Economic Impact – Cuts disposal costs & generates agricultural value.


Innovation – Combines biotechnology with circular economy principles.

Why is it better than existing methods?




Incineration → High emissions, costly energy consumption.


Landfilling → Wastes potential resources.


Chemical Treatment → Expensive, not eco-friendly.


Bioprocessing → Sustainable, cost-effective, and scalable.





Expected Impact



Environmental – Eliminates waste & toxic emissions, enhances soil health.



Economic – Supports farmers with affordable, high-quality compost.



Social – Creates jobs, disrupts organized crime, reduces health risks.







Proven Success with Textiles




TESTED WITH TEXTILE WASTE IN LANDFILLS → HIGH-VALUE COMPOST CREATED.


ADOPTED BY SMALL & MEDIUM-SIZED FARMERS → ENHANCED SOIL QUALITY.


PROVEN POTENTIAL FOR DIVERSE ORGANIC WASTE SOLUTIONS.

Closing Remarks

“Transformative Bioprocesses: The Green Future of Contraband Cigarettes” is more than a Project – it’s a solution.

- APEC economies can collaborate to scale this innovation.
- Let’s work together for a sustainable and crime-free future.
- Join us in transforming waste into opportunity!



Transformative Bioprocesses: The Green Future of Contraband Cigarettes

Application of Biological Transformation Technology for Contraband Cigarettes through a Microorganism-Based Bioprocess

THANK YOU!

ADUANAS

CHILE

CUSTOMS



Questions and Comments

SESSION 4: SUPPLY CHAIN MANAGEMENT FOR SEAMLESS CROSS-BORDER MOVEMENT OF ENVIRONMENT-FRIENDLY PRODUCTS

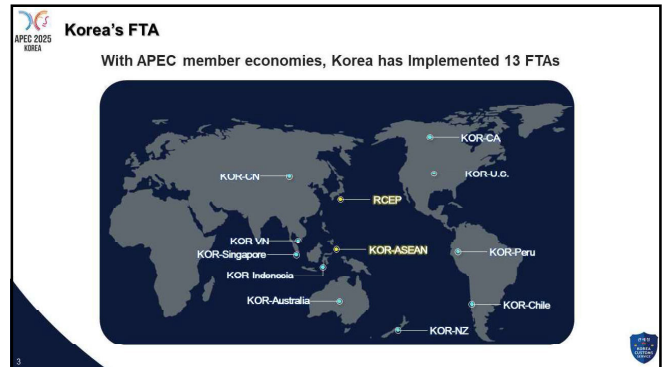
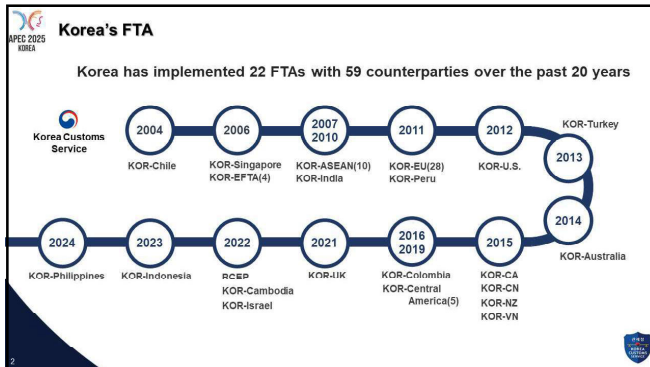
4.1 Presentation on Establishment of Infrastructure to Enhance Capacity of MSME Exporters Using FTAs

2025 APEC SSCP Support to Strengthen MSMEs' Capacity to Utilize Free Trade Agreements (FTAs)

Director, FTA Implementation Division Tai-yong, Kim

February 25, 2025





KCS's FTA-related work

Exports

- Issuing C/O for FTA
- Authorizing approved exporters
- Conducting origin verifications

Imports

- Advance rulings of origin
- Applying preferential tariff rates
- Verifying the origin of goods

KCS's FTA-related work

Exports

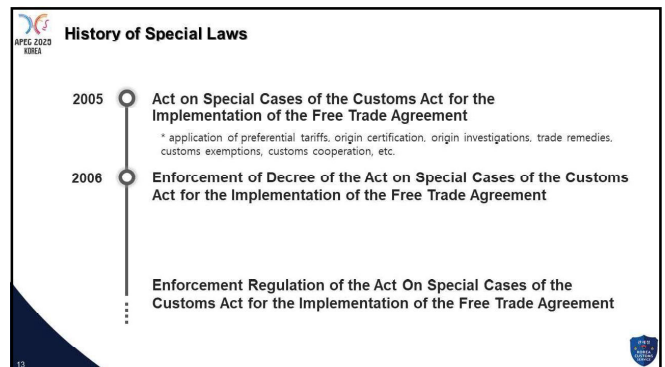
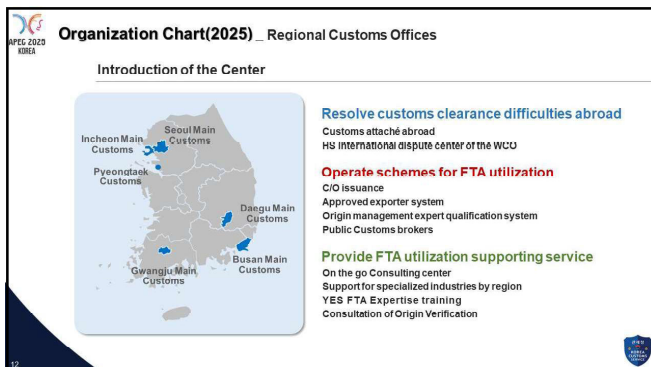
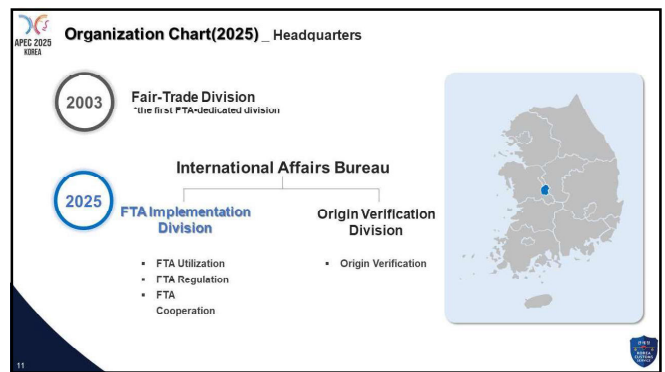
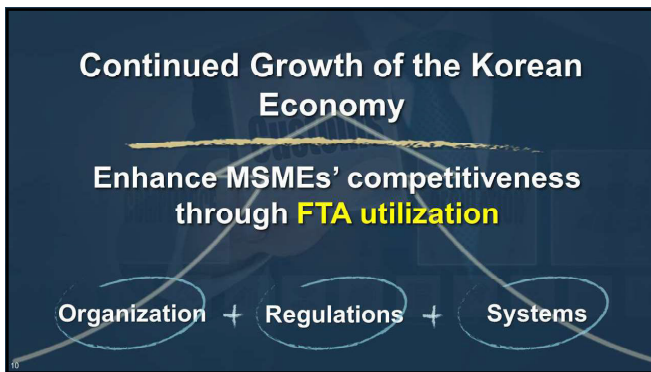
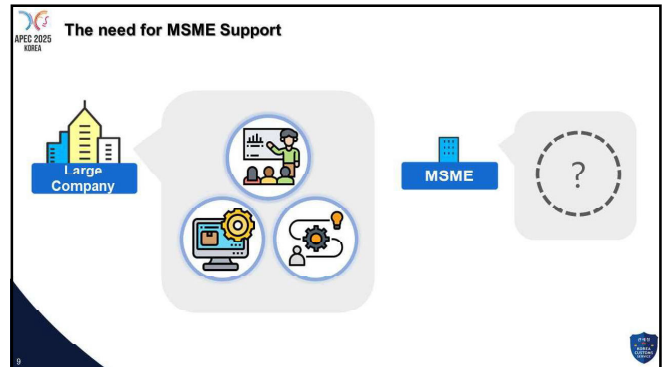
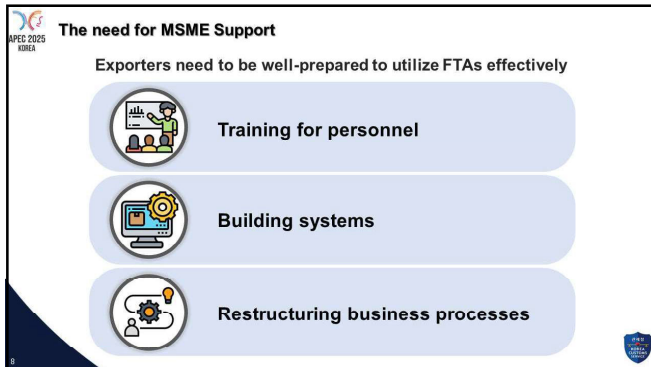
- Issuing C/O for FTA
- Authorizing approved exporters
- Conducting origin verifications

Imports

- Advance rulings of origin
- Applying preferential tariff rates
- Verifying the origin of goods

Why has the KCS focused its effort on supporting MSMEs' utilization of FTAs?

Free Trade Agreement
 Provide a positive impact on export competitiveness by **reducing tariff** and **trade barriers**



Improvement of FTA infrastructure

FTA PORTAL(2006) and FTA-PASS(2010)

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Improvement of FTA infrastructure

Korea Institute of Origin Information(2009)

Korea's first FTA and origin verification research institute

- Developing FTA policies
- Planning for business support
- Operating specialized FTA training programs
- Fostering FTA experts for companies

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Business Support Activities _ 1. Holding FTA Seminars

Holding seminars to share the latest trends and issues with companies preparing for the utilization of new FTAs

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Business Support Activities _ 2. Mobile Consulting Service

Operating an 'On the go Consulting Center' to visit companies and provide FTA utilization consulting since 2015

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Business Support Activities _ 3. 'YES FTA' Specialized Training'

- Educational support program for the utilization and capacity enhancement of FTA for MSMEs.
- In 2024, the training program offered on/off-line, with 15 courses available.

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Business Support Activities _ 3. 'YES FTA' Specialized Training'

Operation status in 2024

Operational performance

- The number of participants
→ 9,633
- The number of participated companies
→ 2,912

FTA export utilization rate

<Number of exporters utilizing FTAs>		<Amount of export utilizing FTAs>	
2023	1,756	2023	11.16 billion (US \$)
2024	1,905	2024	11.29 billion (US \$)
	8.49%↑		1.2%↑

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Business Support Activities_ 4. Best Practice Presentation Competition

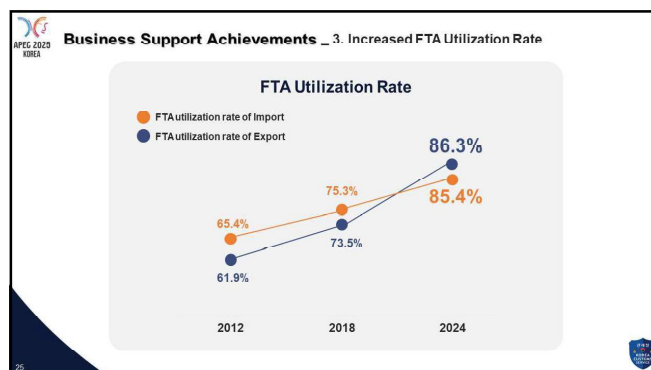
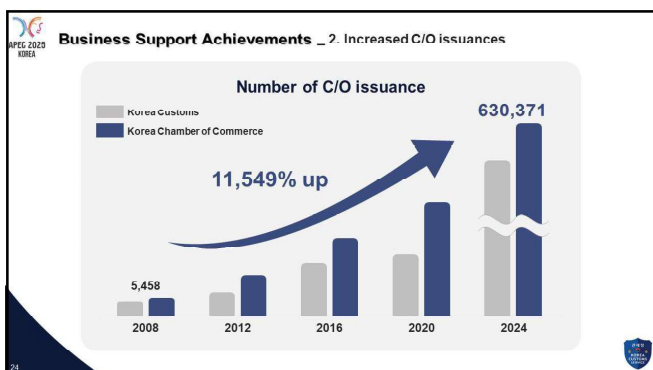
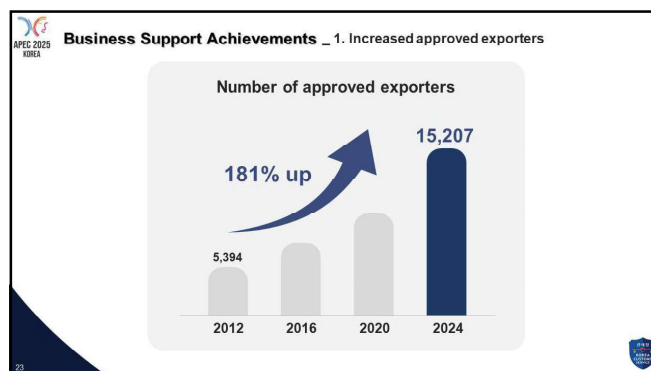
Organizing a competition for discovering best FTA utilization and business support cases since 2007

20

Business Support Activities_ 5. Signing an MOU

Signing an MOU with financial institution and private institution to promote FTA utilization




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Supporting Effort for MSMEs must Continue

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Conclusion

 <p>First FTA Export</p> <p>Every year, around 16,000 companies are exporting for the first time to FTA partner economies</p>	 <p>Disparities in FTA Utilization</p> <p>Utilization remains low in some industries, and there are also regional disparities within Korea</p>	 <p>Spaghetti bowl effect*</p> <p>Difficult to use FTA due to multi FTAs with 1 economy and mega FTAs</p> <p><small>*The spaghetti bowl effect refers to the complexity and inefficiency that arise from the overlapping and conflicting rules of multiple FTAs.</small></p>
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The KCS will:

- ✓ Strengthen support for new exporters and industries with low FTA utilization

The KCS will:

- ✓ Ensure stable environment where companies manage origin of goods and utilize FTAs more effectively

The KCS will:

- ✓ Enhance collaboration between government and private sectors to promote trade growth

Thank you for your attention.


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4.2 Presentation on Global Waste Trafficking: Data and Trend Analysis

**Global waste trafficking: data and trend analysis**


APEC Green Customs
24 February 2025

UNODC 1

**UNODC's work on illegal waste traffic**


UNODC

Global Waste Strategy




UNODC 3

The Global Analysis on Crimes that Affect the Environment



Images: Adobe Stock

**UNODC Research**

UNODC 4

The UNODC-WCO Container Control Programme Plastic and Hazardous Waste



The Head of Shanoukville PCU, a PCU member and CCP trainer inspecting an abandoned container during a mentorship in Cambodia – 16 tonnes used lead and batteries discovered

Participants of PCU1 inter-agency plastic & hazardous waste training inspect a 42 tonne abandoned shipment of illegal plastic waste in Bangkok, 2024



UNODC 5

Combating Waste Trafficking A guide to Good Legislative Practices

Scan the QR code to
access the guide



UNODC 6

Unwaste project



UNODC

United Nations
Office on Drugs and Crime

Co-funded by the
European Union

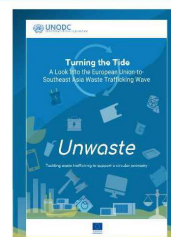
UN
Environment
Programme

UNWU 7

The Unwaste report series - publications



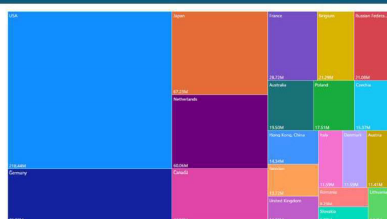
Turning the tide - highlights



The regulatory and enforcement efforts in the European Union and Southeast Asia in the past years indicate a positive shift in the fight against waste trafficking. However:

- Waste trafficking from high-income economies to other economies persists as a significant phenomenon
- Southeast Asia remains a major targeted destination for illegal waste shipments;
- The primary regions of origin for these illegal shipments: Europe, North America, and Asia;
- Common tactics: false declarations, lack of or incorrect notifications to circumvent regulations and avoid controls, and missing or inadequate licenses or documents;
- Waste trafficking has the potential to disrupt legal trade and threaten the transition to a circular economy;
- Further regulatory reforms, enhanced international cooperation, capacity development, research, data, and stricter enforcement measures are needed to combat waste trafficking effectively.

Waste trade – highlights



- The European Union is the main exporter of waste globally, with more than 40% of trade in terms of quantity and value.
- The other two major waste exporters are the United States and Japan.

Main waste exporters for 10 types of waste and scrap combined, by quantity, 2017–2022, in (tonnes)
(Source: UN Comtrade, accessed January 2024)

Reported cases of illegal traffic under the Basel Convention (2018 – 2021 data)

Reported closed cases of illegal traffic

- 914 cases for 2018
- 1,098 cases for 2019
- 1,259 cases for 2020
- 1,714 cases for 2021

Only a few resulted in legal consequences: Imprisonment and probation were scarce, and the fines reported were relatively modest

Reported cases of illegal traffic under the Basel Convention (2020 – 2021 data)

- The reporting rate remains below 50%, with reports predominantly originating from Europe
- Types of trafficked waste
 - Waste electrical and electronic equipment and their parts: African region (main destination)
 - End-of-life vehicles and their parts: African region (main destination); Eastern and Western Europe
 - Plastic waste: Asia-Pacific (main destination). Eastern and Western Europe
 - Other: lead-acid batteries, other batteries, and municipal waste



Cases of illegal traffic

Illegal shipments to Southeast Asia (data from economies)

- Plastic, e-waste, metal and paper were the predominant types of waste shipped illegally to ASEAN economies between 2017 and 2021;
- End-of-life vehicles, textiles and rubber



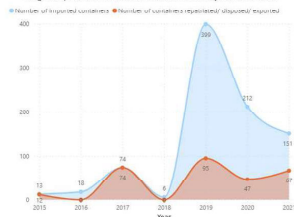
Illegal waste traffic - Types of waste (2017-2021) – 4 ASEAN economies

- Indonesia:** plastic waste, medical waste and equipment, paper waste, metal waste, and hazardous waste.
- Malaysia:** hazardous waste, plastic waste, paper waste, steel scrap, aluminium scrap and e-waste
- Thailand:** plastic waste, e-waste, household waste (declared as paper).
- Viet Nam:** iron and steel, paper, plastic and other wastes



Malaysia - Illegal waste traffic (2017-2021)

Illegal shipment of hazardous wastes into Malaysia, 2015-2021



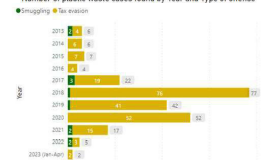
673 containers of hazardous waste reported illegally shipped to Malaysia 2015 - 2021.

- Types of waste:** hazardous waste, plastic waste, metal scrap, wastepaper, steel scrap, aluminium scrap and e-waste.
- Modus Operandi:** false declarations and no import permits (or general non-compliance with import regulations). Illegal imports occur via sea routes.
- Prosecuted case:** No cases of illegal traffic were prosecuted between November 2017 to November 2022.



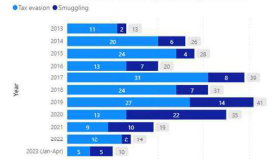
Examples: Thailand – waste cases (violation of Customs laws)

Number of plastic waste cases found by Year and Type of offense



240 arrests, 9,343 tonnes, import value of €2.05 million

Number of e-waste cases found by Year and Type of offense



276 arrests, import value of €570,000



European Ports



Rotterdam
Antwerp
Genoa



Port of Rotterdam (The Netherlands)

Year	TEU total traffic	Waste inspections	Illegal cases related to waste	% of illegal cases of total waste inspections
2021	15,300,000	5,072	80	1.6
2020	14,350,000	4,065	123	3
2019	14,820,000	4,698	81	1.7
2018	14,500,000	3,859	52	1.3
2017	13,700,000	3,414	126	3.7
Total	72,670,000	21,108	462	



• Port of Antwerp (Belgium)

Year	TEU total traffic	Waste inspections	Illegal cases	% of illegal cases of total waste inspections	Reports compiled and passed on to the public prosecutor's office
2021	12,020,000	1,694	273	16.1	34
2020	12,031,469	2,130	297	13.9	46
2019	11,860,204	3,840	233	6	35
2018	11,100,408	2,924	216	7.3	21
2017	10,450,900	3,122	228	7.3	38
Total	57,462,981	13,709	1,247		174

The main type of waste targeted and detected in the port of Antwerp was plastic waste



• Port of Genoa (Italy)

Year	Total TEU	Routine checks	Number of containers inspected as a result of risk analysis	Number of total criminal cases in the port of Genoa	Number of criminal cases related to waste in the port of Genoa
2017	2,662,187	12,895	497	175	85
2018	2,674,404	13,231	624	131	63
2019	2,669,917	15,893	735	156	72
2020	2,498,850	11,861	584	167	107
2021	2,781,112	8,294	658	176	86

Plastic is the main waste category exported to Asia



What to watch for / Trends (SEA)

- Total ban on plastic imports in Thailand (Jan 1st 2025)
- Indonesia is applying for OECD status; no new import licenses for plastic waste
- Used solar panels: Thailand (proposed) national regulation to establish min. 70% functionality for refurbishing/re-use;
- Used EV batteries
- Textiles - existing bans on waste/used textiles - e.g.: imports of second-hand winter clothes in tropical economies;
- Bans due to a high number of illegal cases (e.g.: household waste reported as paper)
- Displacement (land borders within ASEAN); South Asia;
- Use of online platforms



Plastic scraps import ban in Thailand



Notification of Ministry of Commerce on Determination of Plastic Scraps as Prohibited Goods from Being Imported into the Kingdom of Thailand, B.E. 2567 (2024)

- Effective from **1 January 2025**.
- Determining scraps and unusable material made of plastic under **HS code 3915** as **prohibited products** from being imported into the economy.
- With aims to create a **circular economy** based primarily on domestic recycled plastics.
- This measure resulted from Thailand's Cabinet Resolution in 2023 to phase down plastic scraps importation from 2023-2024 before implementing a full ban on 1 Jan 2025.



• Recent cases

- Hazardous waste shipment aimed at Thailand;
- Malaysia - interception of illegal e-waste shipments - over 500 containers in 2024 (facilitated by BAN alerts); link to organized crime
- Thailand: household waste declared as paper

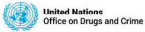


E-waste seizure in Thailand (Jan 2025)



- **Increasing trends of arrest and seizures of illegal electronic waste, plastic waste, and municipal waste in the past four months.**
- **256 tonnes of e-waste** placed inside 10 containers detected at Laem Chabang port
- **Origin:** Hong Kong, China and Japan
- **Modus operandi:** *Misdeclaration* as used metal scraps and metal scraps.
- **Violation of national regulations**
 - Ministry of Commerce's announcement prohibiting electronic waste imports (2020)
 - Customs Act B.E. 2560 (2018)
 - Hazardous Substance Act D.C. 2535 (1992)

Source: Thai Customs Department website



Way forward

- Continue the enforcement efforts to stop the waste at the origin
- Optimize take back / repatriation & traceability
 - Cases where repatriation is dealt with directly with the exporting company and results in re-export
- Consolidate the enforcement operations - competing demands
- Data exchange - at the formal level requires an MOU/bi-lateral agreement
 - **informal exchanges are important**
- "What is the FIJ amber list equivalent under Basel?"
 - capacity building on the EUWSR



➤ **Mapping of criminal networks!**



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Wrap Up of Workshop and Closing Remarks

Post-event survey