

Plasticity Amsterdam – (20 June 2019)

East West trade impasse :trade impacts on circular economies and what business need to be considered

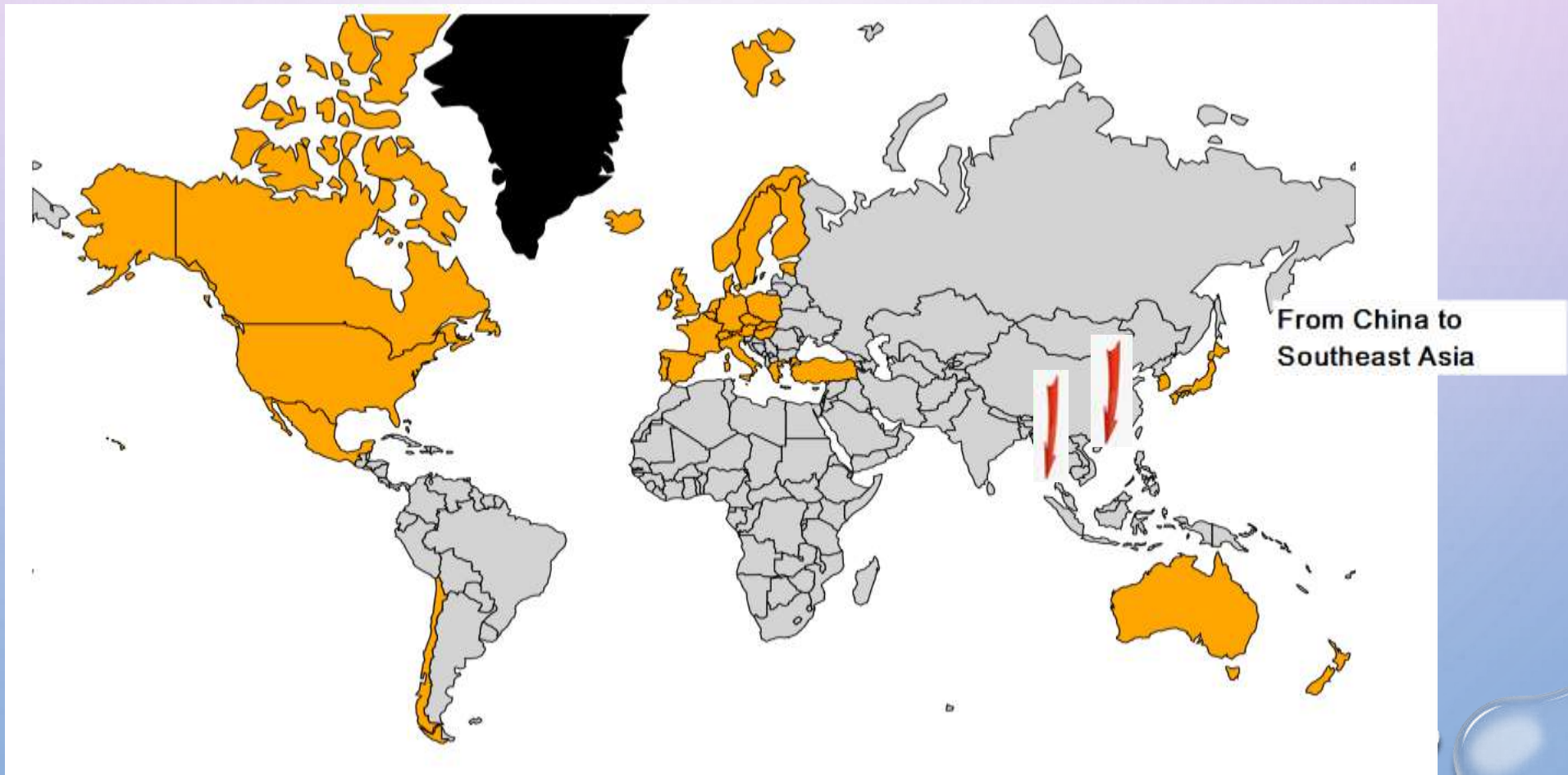
By Dr. Steve Wong (黃楚祺)

Executive President, CSPA

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Exodus of plastic recyclers

- **Exodus - 1 Recyclers of imported waste in China**



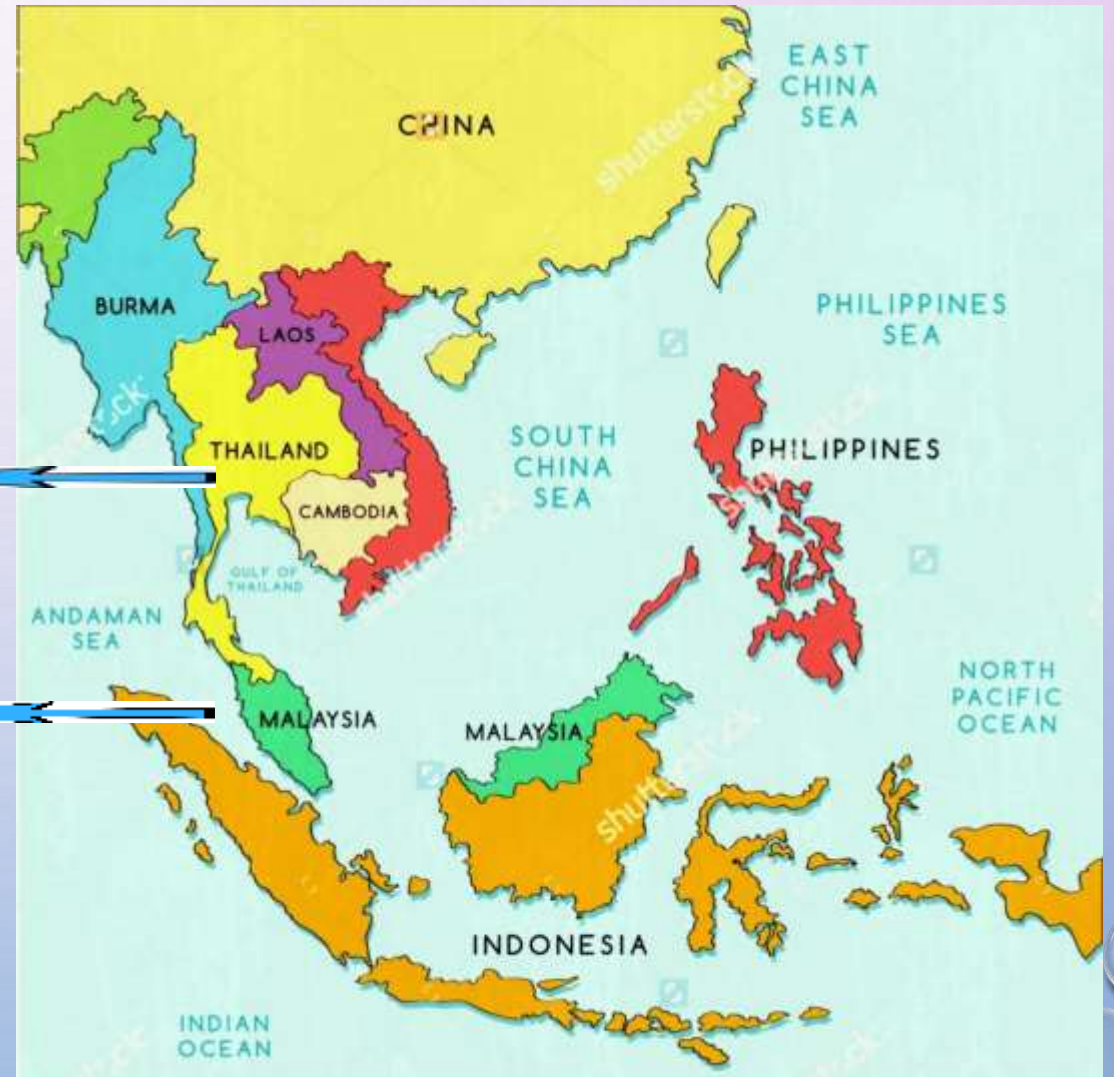
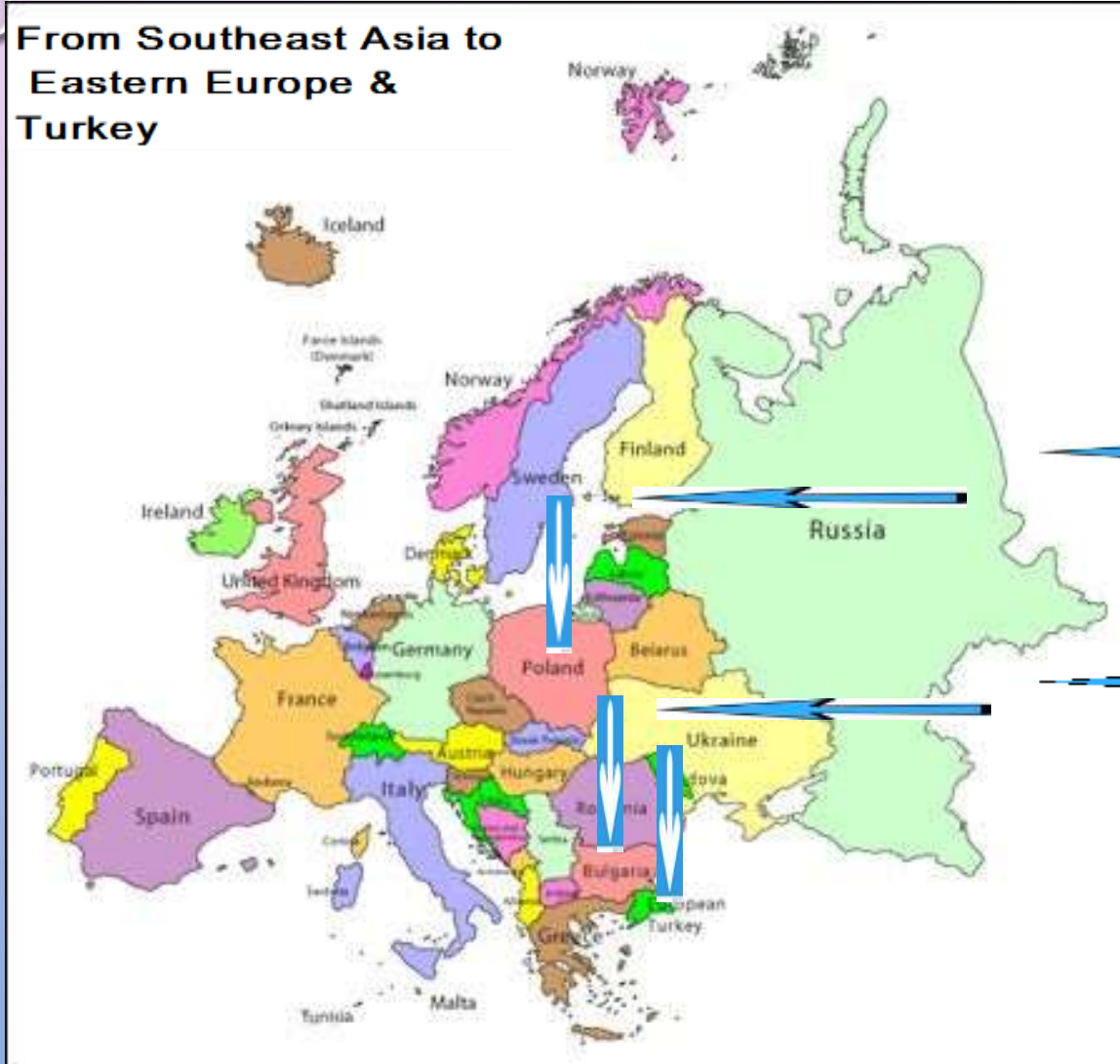
Exodus – 1: recyclers from China

- **Exodus - 1** Recyclers of imported waste in China shifted to Southeast Asian countries



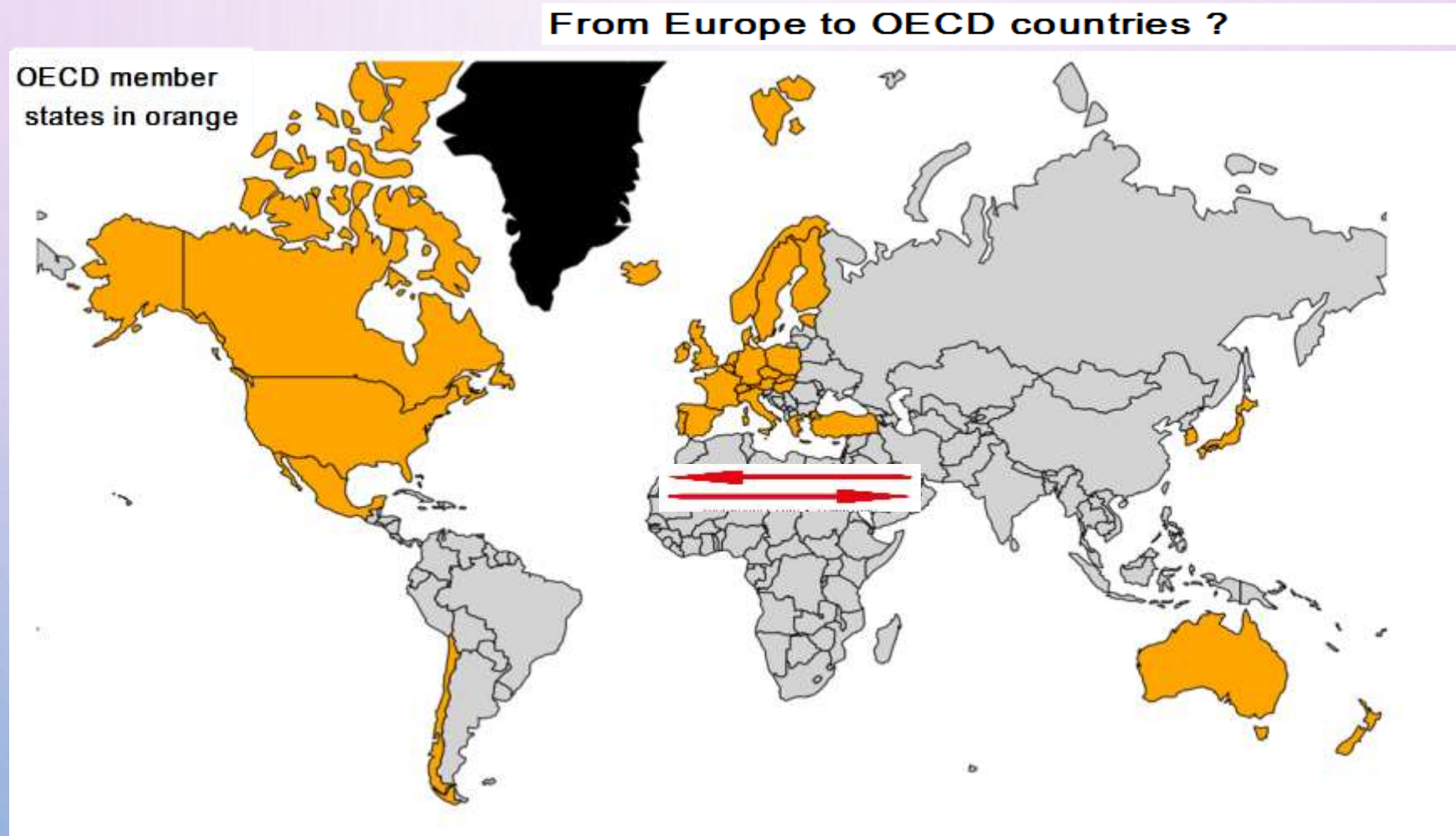
Exodus – 2: shift from Southeast Asia to Eastern Europe & Turkey

From Southeast Asia to Eastern Europe & Turkey



From Southeast Asia to Europe

Exodus – 3 : recyclers move to OECD countries ?





Exodus?

Why ?



Fundamental changes in the plastic recycling industry

- **1.1 Pollution consciousness**

- **1.1.1 lack of pollution awareness in the past**

- **1.1.2 use of plastics made living convenient while pollution was ignored**

- **1.1.3 progress from lavish use to “Reduce / Reuse / Recycling”**

Fundamental changes in plastic recycling industry

- **1.1 Pollution consciousness**

- **1.1.4 from lax to strict control on pollution caused by recycling**
- **1.1.5 recycling of local waste – taken as priority by various countries**
- **1.1.6 pollution arising from recycling – caused by imported waste ?**

Fundamental changes in plastic recycling industry

- **1.2 Major policy changes are impacting the recycling industry**
 - **1.2.1 National Sword – a wake-up call, reshaped the solid-waste treatment / waste flow / government policy change / raising consciousness of plastic pollutions of general public (seen medias footage which promulgated micron plastic contaminations on water and food chain)**

Fundamental changes in plastic recycling industry

- **1.2.1** **consciousness of plastic pollutions of general public**



Fundamental changes in plastic recycling industry

- **1.2 Major policy changes are of devastating effect to the recycling industry**
 - **1.2.2 recyclers shake-up – exit the industry or continue operation in China if able to source domestic raw material supplies and comply with new environmental controls**

Fundamental changes in plastic recycling industry

- **1.2.2 recyclers shake-up**
 - **exit the industry**



Fundamental changes in plastic recycling industry

- **1.2 Major policy changes are of devastating effect to the recycling industry**
 - **1.2.3 operations relocated to Southeast Asian countries, if scrap materials are imported from other countries**
 - **1.2.4 Basel Convention amendment – to restrict flow of plastic waste but is devastating to the recycling industry of the developing countries**

Immense effect

- **2.1 Disruptive changes reshaped the recycling industry**
 - **2.1.1 many recyclers were weeded out in Southeast Asian countries – unable to meet pollution control standards, not licensed for recycling, not licensed for plastic waste imports**
 - **2.1.2 low recovery rate plastic scraps, mixed plastic scraps, contaminated plastic scraps or difficult to recycle scraps are lacking of recyclers' attention for commercial reasons**

Immense effect

- 2.1.1 many recyclers were weeded out in Southeast Asian countries – factory shut down



Immense effect

- **2.1 Disruptive changes reshaped the recycling industry**
 - **2.1.3 Basel Convention amendment – close the door on free flow of these items**
 - **2.1.4 where will such contaminated items go – Major concern**
 - **2.1.5 global use of plastics is 340 million tons/year while recycling rate is currently at 9% only**

Immense effect

- **2.1.3 Basel Convention amendment – close the door on free flow of contaminated / mixed / low recovery rate items**



Immense effect

- **2.1 Disruptive changes reshaped the recycling industry**
 - **2.1.6 Is the change good for supply and demand of recycled raw materials – answer is always “yes” and “no”**
 - **2.1.7 Is the change good for our environment – carbon emission / ocean pollution / food-chain hazards “pro & con”**

Industry takes a new shape

- **3.1 Flow of plastic waste reshaped**
 - **3.1.1 major importing countries reshuffled**

Top importing countries (YoY changes) - plastic scrap	(Unit : million tons)				
Country	2016	2017 (YoY changes)		2018 (YoY changes)	
China	7.35	5.83	-20.68%	0.36	-93.83%
China (Hong Kong)	2.88	1.89	-34.37%	0.43	-77.24%
Malaysia	0.29	0.55	89.66%	0.97	76.36%
China (Taiwan)	0.18	0.20	11.11%	0.42	110.00%
Indonesia	0.12	0.13	8.33%	0.33	153.85%
Vietnam	0.30	0.61	103.33%	0.46	-24.59%
Thailand	0.07	0.21	200.00%	0.51	142.86%
sub-total : above markets otherthan China & China (Hong Kong)	0.96	1.70	77.08%	2.69	58.24%
rest of World	4.29	3.94	15.48	2.75	-30.20%
Grand total	15.48	13.36	-13.70%	6.23	-53.37%

Industry takes a new shape

- **3.1 Flow of plastic waste reshaped**
 - **3.1.2 substantial cut in exports by plastic scraps exporting countries**

Top exporting countries - plastic scrap	Unit: million tons			
Country	2016	2017	2018 (YoY changes)	
USA	1.62	1.67	1.07	-35.90%
Japan	1.53	1.43	0.95	-33.57%
Germany	1.45	1.22	0.97	-20.49%
United Kingdom	0.81	0.68	0.59	-13.25%
Netherlands	0.48	0.39	0.35	-10.26%
rest of World	5.85	5.85	2.30	-60.68%
Grand total	11.74	11.24	6.23	-46.93%

Industry takes a new shape

- **3.1 Flow of plastic waste reshaped**
 - **3.1.3 enormous increases in flow of plastic scraps to Southeast Asian countries during the last two years which have been slowed down as from second half of 2018 and beyond due to policy change of such countries**

Industry takes a new shape

- **3.1 Flow of plastic waste reshaped**
 - **3.1.4 plastic waste which came into Philippines and Malaysia illegally during the last few years are being sent back to the countries of origin recently**

Industry takes a new shape

- **3.2 Shift of operations**

- **3.2.1 shift of operation base and flow of plastic scraps will continue in the next few years according to the staged cut-back on inflow of plastic scraps by Southeast Asian countries**
- **3.2.2 the new homes for recyclers also include African countries, Central and Latin American countries**
- **3.2.3 more recyclers will shift to places close to upstream supplies**

Industry takes a new shape

- **3.2.3 more recyclers will recycle at source**



Industry takes a new shape

- **3.2.3 more recyclers will recycle at source**



Industry takes a new shape

- **3.3 Change in business mode**
 - **3.3.1 more international trade in recycled pellets / regrinds while decreases in plastic scraps trade are envisaged in Southeast Asian countries**
 - **3.3.2 recyclers to also engage in the products manufacturing such as photo frame, film-blowing and fiber for auto industry and textile is a development direction**

Industry takes a new shape

- **3.3 Change in business mode**
 - **3.3.3 increasing investment in upstream waste treatment technology and facilities is envisaged – waste collectors are integrating their operations to recycle their scraps to pellets for brand owners, VEOLIA / Stena / Suez are examples**

Use of recycled contents targets

- **4.1 Uncertainties in achieving targets**
 - **4.1.1 Basel Convention amendment – effect on brand-owners targets in use of recycled contents is yet to be seen**
 - **4.1.2 supply and demand – can the restricted flow between countries release enough recyclables**

Use of recycled contents targets

- **4.1 Uncertainties in achieving targets**
 - **4.1.3 would the contracted suppliers of brand-owners be shifted to new locations close to upstream supply end which may spread out – higher cost and less efficiency in operations for suppliers**
 - **4.1.4 would the brand-owners be required to adjust the type of materials used and target date of recycled contents according to change of capacity of suppliers**

Way forward – road maps

- **5.1 have environmental pollutions under control and ocean debris reduced is a global mission nowadays**
- **5.2 restrict the one-time use plastics, increase the reuse and recycling of plastics and consume less plastics – a common solution**
- **5.3 more reuse and recycling for circular economy – to raise recyclables on use of plastics for manufacturing is important**

Way forward – road maps

- **5.2 restrict the one-time use plastics**



Way forward – road maps

- **5.4 restricting free flow of plastic scraps may upset a balanced supply and demand situation – impacts global recycling rate, unless recycling at source is really achieved**

Way forward – road maps

- **5.5 policy change can be more environmental friendly, if decision is taken from a global stand point – as the essence of the amendment is to control transboundary movement of contaminated scraps, whether more scraps will be recycled or burned/landfilled at where scraps are generated is yet to be seen**

Way forward – road map

- **Landfilling, burning => pollutions**
while those slipped to oceans entail food-chain hazards





Thank you

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