

# ASIA PETROCHEMICAL INDUSTRY CONFERENCE

## Thailand's Petrochemical Country Report 2024

**MAY 2024**

**South Korea**

**DELEGATION OF THAILAND**

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# I. Report on the Thai Petrochemical Industry

## Thai Petrochemical Industry – Current State and Issues

### I-1. Business Environment

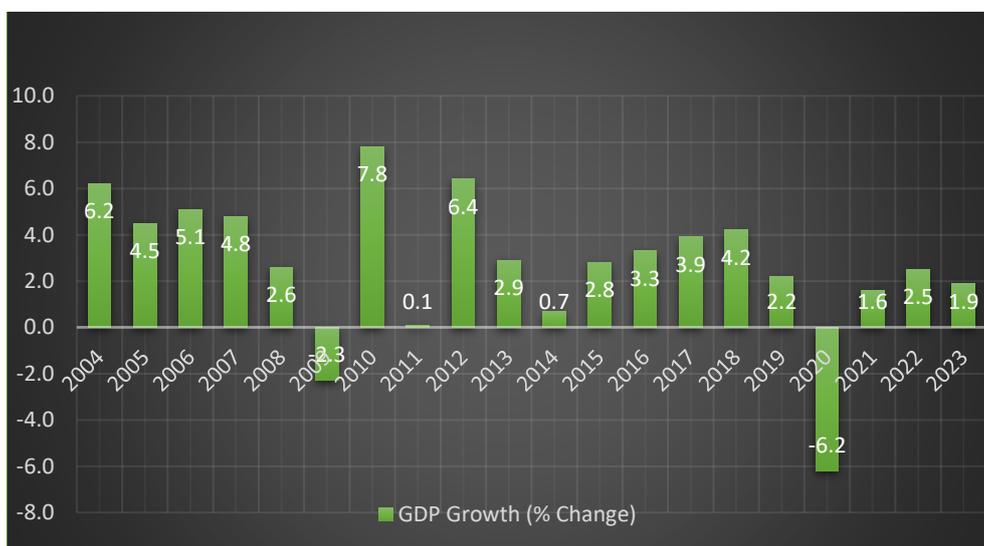
In January 2024, the IMF projected a global economic growth rate of 2.9% for 2023, down from 3.2% in 2022. The slow growth driven by the rise in central bank policy rates to fight inflation continues to weigh on economic activity. The IMF also predicts a 3.1% global GDP growth rate for 2024, expected as the USA and emerging economies recovered.

### I-2. Present Situation and Future Prospect of the Thai Economy

The National Economic and Social Development Board (NESDB) reported that Thailand's Gross Domestic Product (GDP) grew by 1.9% in 2023, compared to the 2.5% growth in the previous year, as seen in Figure-1.

Thailand's economy is expected to see a growth rate ranging from 2.2%-3.2% in 2024, driven by the retune to an expansion of export within the global economic recovery, continual recovery of tourism sector due to the return of Chinese tourists after visa waive on March 1<sup>st</sup>, as well as the expansion of both private and public investment.

**Figure-1: Thailand's GDP Growth in 2004-2023**



Source: NESDB and BOT

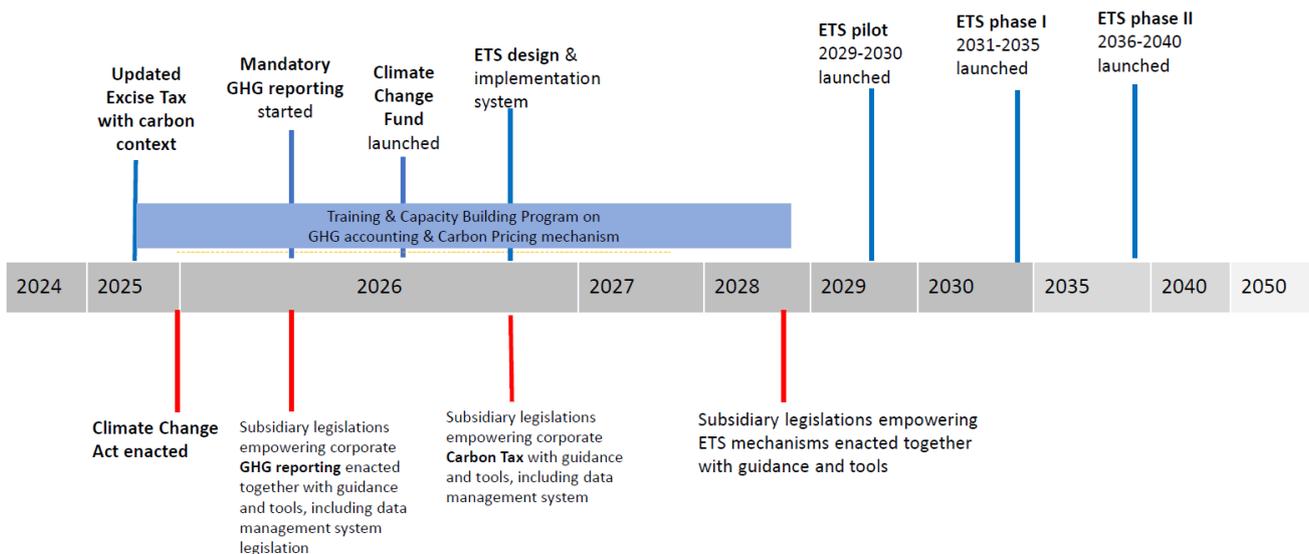
### I-3 Sustainability in Actions

- **Thailand has Draft Clean Air Act**

Thailand’s current legal framework to manage air quality can be seen in many existing laws that regulate the monitoring and treatment of air pollution, and specify air quality standards. The next step towards strengthening the legal framework on air quality control is notably the significant impact of PM2.5 as the Cabinet approved in principle the principle Draft Management for Clean Air Act on 28 November 2023.

The draft aims to formalize and consolidate government efforts to combat pollution through a unified national clean air policy. The coalition's draft includes the creation of the Clean Air Policy Committee, chaired by the prime minister, which will implement tools to incentivize clean air investment through tax policy and other financial measures.

**Figure-2: Draft-Readiness Plan and Implementation Plan**



Note: ETS = Emission Trading System    GHG = Green House Gas

The Act marks a significant milestone for environment and public health policy in Thailand. If enacted as drafted, will be applicable to all persons and government authorities with stringent penalties, all stakeholders should closely monitor and adhere to the applicable standards and measures prescribed by the Clean Air Act.

As the standards and measures to be set out under the Clean Air Act are likely to be more stringent than those in other related air pollution laws, including those currently applicable to petroleum, petrochemical and energy sectors, there may be increasing operational costs resulting from the administration and increased technology enhancements in business operations. Not only that the business operators are responsible for administering the air pollution resulting from its operation but also for

monitoring the air quality in the operational zone, as specific measures may be imposed if the area is air polluted.

Additionally, given the sensitivity of the petroleum, petrochemical and energy sectors to air pollution, business operators should also monitor and consider the possibility that the higher applicable tax and fee or the placement of security may be required. Once effective, the Clean Air Act may stimulate a transition from combustion-based energy to cleaner energy sources and reduce dependence on energy generated through combustion processes in both residential and industrial sectors.

- **Driving the low-carbon economy in Thailand**

Thailand has developed the "Thailand's Long-term Low Greenhouse Gas Emission Development Strategy" to achieve carbon neutrality by 2050 and net-zero GHG emissions by 2065. The strategy, guided by the principles of a bio-circular-green (BCG) economy, encompasses diverse sectors including energy, manufacturing, waste management, agriculture and forestry. Leveraging the nation's rich biological resources and agricultural sector, the BCG economy aims to enhance their value and foster a bio-based economy rooted in sustainability. The strategy promotes the circular and efficient utilization of resources (circular economy) while upholding environmental friendliness (green economy). Thailand's pursuit of the BCG economy is in line with the United Nations' Sustainable Development Goals (SDGs).

The petrochemical industry, which is one of the industries with the highest carbon emissions, has seen a significant increase in investment in low-carbon business and technology development, making it a key industry driving the energy transition. Many leading companies have announced net-zero greenhouse gas emission targets in Scope 1 and 2 and have committed to reducing greenhouse gas emissions in Scope 3. To realize these targets, they have established decarbonization pathways and implemented various carbon offsetting methods, including: increasing operational efficiency and reducing waste, restructuring towards low-carbon businesses and applying nature-based solutions and exploring carbon capture technologies to achieve decarbonization goals with the highest level of effectiveness.

The volatile economic conditions, geopolitical conflicts, new rules of global trade, and the trend of reducing carbon emissions and greenhouse gases present both opportunities and challenges for the industrial sector. Businesses must adapt to the changing context by enhancing competitiveness, flexibility and continuous adaptation amidst external uncertainties. Integrating business operations with sustainable development is crucial, with a focus on sustainable business growth that meets the demands of consumers in a low-carbon and net-zero emission society.

#### I-4. Present Situation and Future Prospect of the Thai Petrochemical Industry

Uncertainly the global economy from the recent conflict between Israel and Hamas, China's economic stagnation, instability in financial institutions in USA and Europe, have had effects on the Thai economy.

New Asian production especially China, Vietnam, Indonesia, the Middle East, as well as in Thailand. This led to supply glut in the Asian markets due to many petrochemical producers must reduce production capacity. Most producers had to keep production output and inventory levels to maintain profit margins. The recovery in global demand will be grow up in the second half of 2024.

Several petrochemical producers have implemented circular economy practices, sustainable waste management initiatives and ESG practices (Environment, Social, and Governance) such as GC's 'YOUTURN' project and SCGC's 'Won' projects, which involve waste collection and recycling, furthermore expanding into the recycling business.

The overview of petrochemical production and consumption is as follows (Table-1):

**Ethylene:** In 2023, weaker economic conditions and demand, resulted in a decline in ethylene consumption.

**Propylene:** The propylene market in 2023 was marked by significant uncertainty, mainly due to ongoing economic concerns and slow demand.

**Polymers:** Converters are facing major concerns such as geopolitical uncertainties, global recession, and high inflation rates. Consumers limit their spending, further weakening the demand for end-use sectors.

Table 1: Production, consumption, and import/ export of 5 Major Products in 2020-2023

Products	2020	2021	2022	2023
<b>Ethylene</b>				
Production	4,516	5,045	4,530	4,463
Import	163	43	87	95
Export	44	99	63	41
Consumption by derivative product <sup>(1)</sup>	4,635	4,989	4,554	4,517
<b>Propylene</b>				
Production	2,876	3,216	2,885	2,576
Import	58	33	72	103
Export	176	240	132	112
Consumption by derivative product <sup>(2)</sup>	2,758	3,009	2,825	2,567
<b>PTA</b>				
Production	2,179	2,364	2,599	2,580
Import	9	16	1	8
Export	897	1,089	1,073	1,039
Consumption <sup>(3)</sup>	1,291	1,292	1,527	1,549
<b>PE (including EVA)</b>				
Production	4,000	4,287	3,811	3,906
Import	570	524	535	531
Export	2,839	2,942	2,626	2,834
Consumption <sup>(3)</sup>	1,731	1,869	1,720	1,603
<b>PP</b>				
Production	2,196	2,276	2,030	1,912
Import	228	288	315	390
Export	1,126	1,150	952	910
Consumption <sup>(3)</sup>	1,298	1,414	1,393	1,392

Note: Data shown as "0" means less than 0.5 ton.

(1) Consumption netbacked from PE, VCM, EG and SM production.

(2) Consumption netbacked from PP, Cumene and PO production.

(3) Consumption figure is different from calculation (Production + Import – Export) due to inventory change

**Table-3:** Capacity of Major Petrochemicals 2022 (as of Mar 2023)

<b>Ethylene</b>	
(Unit:'000 T/Y)	
<b>Company</b>	<b>Capacity</b>
▪ GC	2,827
▪ IRPC	433
▪ MOC	1,200
▪ ROC	900
<b>Total</b>	<b>5,360</b>

Source: PTIT Industrial Survey, Mar 2024

<b>Polyethylene</b>				
(Unit:'000 T/Y)				
<b>Company</b>	<b>Capacity</b>			
	<b>LDPE/EVA</b>	<b>LLDPE</b>	<b>HDPE</b>	<b>Total</b>
▪ GC	300	800	850	1,950
▪ IRPC			140	140
▪ Siam Polyethylene		650		650
▪ SSLC		330		330
▪ TPE	150	140	980	1,270
▪ TPI	156			156
<b>Total</b>	<b>606</b>	<b>1,920</b>	<b>1,970</b>	<b>4,496</b>

Source: PTIT Industrial Survey, Mar 2024

<b>Polyvinyl Chloride (PVC)</b>	
(Unit:'000 T/Y)	
<b>Company</b>	<b>Capacity</b>
▪ TPC	530
▪ TPC Paste Resin	36
▪ AVT	330
<b>Total</b>	<b>896</b>

Source: PTIT Industrial Survey, Mar 2024

<b>Propylene</b>	
(Unit:'000 T/Y)	
<b>Company</b>	<b>Capacity</b>
▪ GC	902
▪ HMC	300
▪ IRPC	732
▪ MOC	850
▪ ROC	450
▪ SPRC	155
<b>Total</b>	<b>3,389</b>

Source: PTIT Industrial Survey, Mar 2024

## Polypropylene

(Unit:'000 T/Y)

Company	Capacity
▪ HMC	1,060
▪ IRPC	775
▪ TPE	860
<b>Total</b>	<b>2,695</b>

Source: PTIT Industrial Survey, Mar 2024

## Styrene Monomer

(Unit:'000 T/Y)

Company	Capacity
▪ IRPC	260
▪ SSMC	320
<b>Total</b>	<b>580</b>

Source: PTIT Industrial Survey, Mar 2024

## Polystyrene (PS)

(Unit:'000 T/Y)

Company	Capacity
▪ GC Styrenic	90
▪ IRPC	125
▪ Siam Polystyrene	150
<b>Total</b>	<b>365</b>

Source: PTIT Industrial Survey, Mar 2024

## Butadiene

(Unit:'000 T/Y)

Company	Capacity
▪ BST	220
▪ IRPC	56
▪ PTTGC	75
<b>Total</b>	<b>351</b>

Source: PTIT Industrial Survey, Mar 2024

## Synthetic Rubber

(Unit:'000 T/Y)

Company	Capacity			
	SBL	SBR	BR	Total
▪ BST Elastomer		72		72
▪ BST ENEOS Elastomer		120		120
▪ SSLC	25			25
▪ Thai Synthetic Rubber			72	72
<b>Total</b>	<b>25</b>	<b>192</b>	<b>72</b>	<b>289</b>

Source: PTIT Industrial Survey, Mar 2024

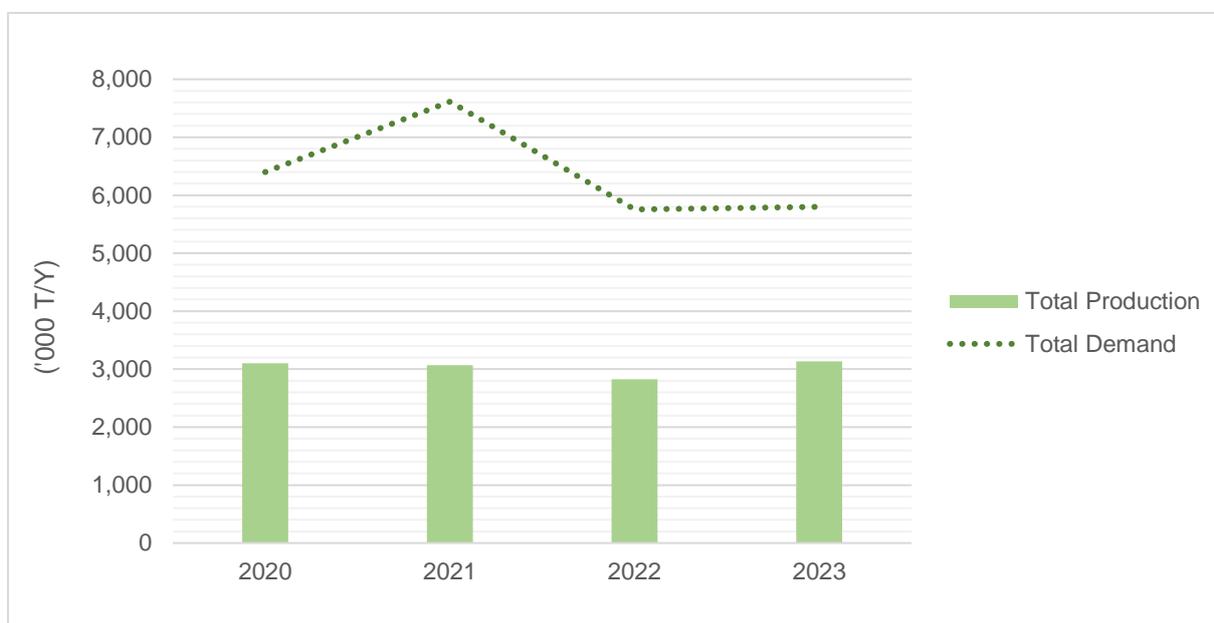
## II. Committee Meetings

### II-1. General Matters & Raw Materials Committee

#### Light Naphtha

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Production	3,099	3,070	2,828	3,136
▪ Feedstock	6,189	7,514	5,734	5,797
▪ Solvents	208	100	20	0
▪ Total Demand	6,397	7,614	5,754	5,797



#### ▪ Review of 2023

The consumption of light naphtha in Thailand increased by 0.7% in 2023 compared to the previous year due to ethylene and derivatives being under pressure from the global economy, causing the market to remain weak.

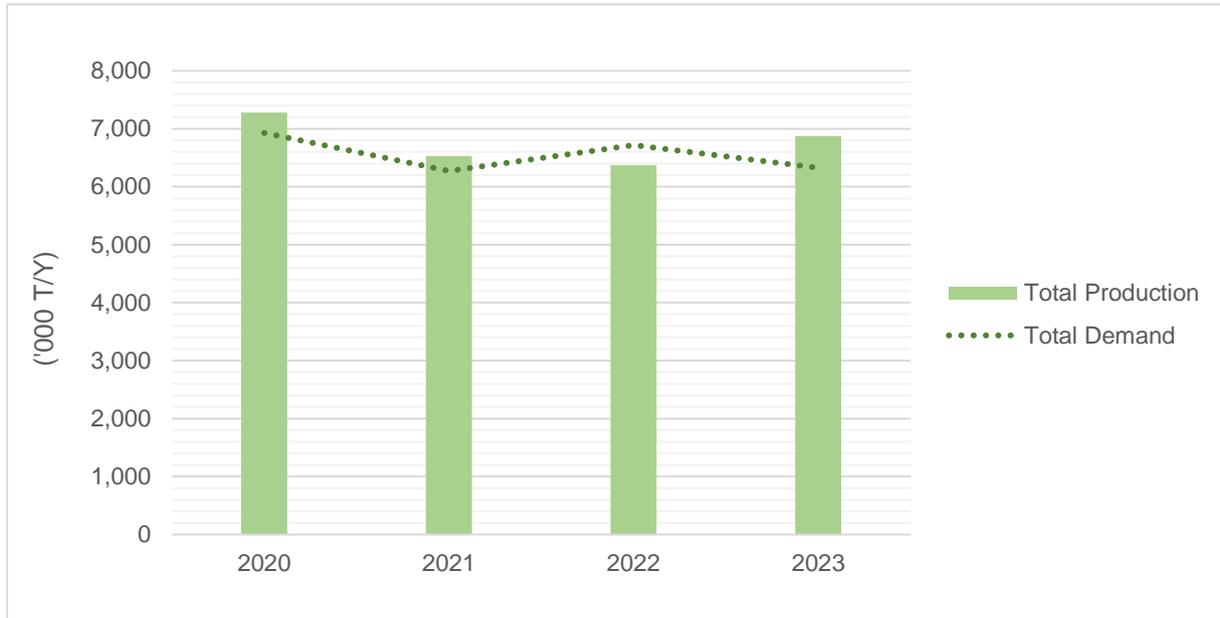
#### ▪ Outlook for 2024

Derivative demand is projected to slowly improve because of economic stimulus and global economic recovery.

## Heavy Naphtha

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Production	7,277	6,529	6,371	6,874
▪ Feedstock	6,928	6,272	6,719	6,324
▪ Total Demand	6,928	6,272	6,719	6,324



- **Review of 2023**

The domestic demand of heavy naphtha production saw a slight decline of 6% in the last quarter of 2023. In addition, the self-sufficiency policy adopted by China led to new capacities of its derivative products, resulting in reduced demand for heavy naphtha and its derivatives.

- **Outlook for 2024**

In 2024, the supply will likely face continued pressure from the economic slowdown and changing consumer behavior. Moreover, Thailand's domestic consumption of heavy naphtha is expected to decrease due to the slow economy, as China's new supply in PTA and PET downstream business is likely to compete with local downstream producers.

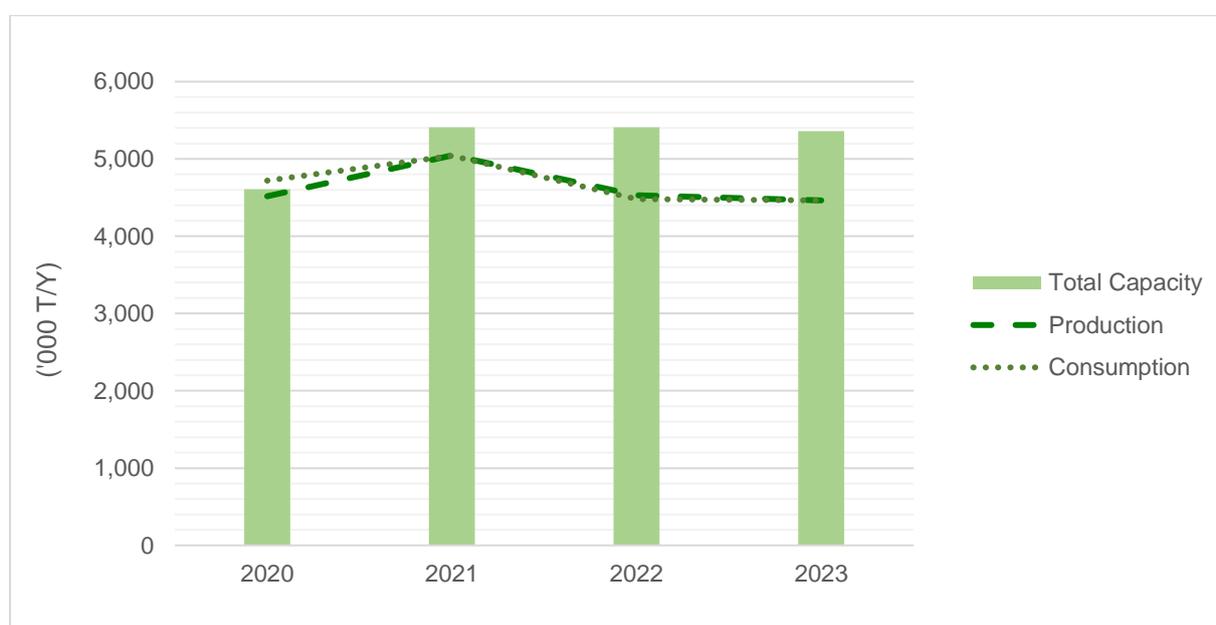
## Olefins: Ethylene

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	4,609	5,409	5,409	5,360
▪ <b>Production</b>	4,516	5,045	4,530	4,463
▪ <b>Consumption by Derivative Product</b>	4,719	5,040	4,478	4,463
▪ <b>Export</b>	44	99	63	41
▪ <b>Import</b>	163	43	87	95

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption netbacked from PE, EDC/VCM, EG and SM production.



### ▪ Review of 2023

In 2023, GC invests in the Olefin 2 Modification Project which increased Propane usage as feedstock and enhances feedstock flexibility for long-term competitiveness. The commercial project operated in the 3rd quarter of 2023. Resulting in Thailand ethylene capacity decreased to 5,360 KTA from 5,409 KTA.

### ▪ Outlook for 2024

The demand for ethylene is expected to remain under pressure due to feedstock volatility and weak derivative demand. New capacity from China effect to export volume ethylene derivatives. Domestic Demand will increase from tourism sector due to the return of Chinese tourists after visa waive on March 1, as well as the expansion of both private and public investment.

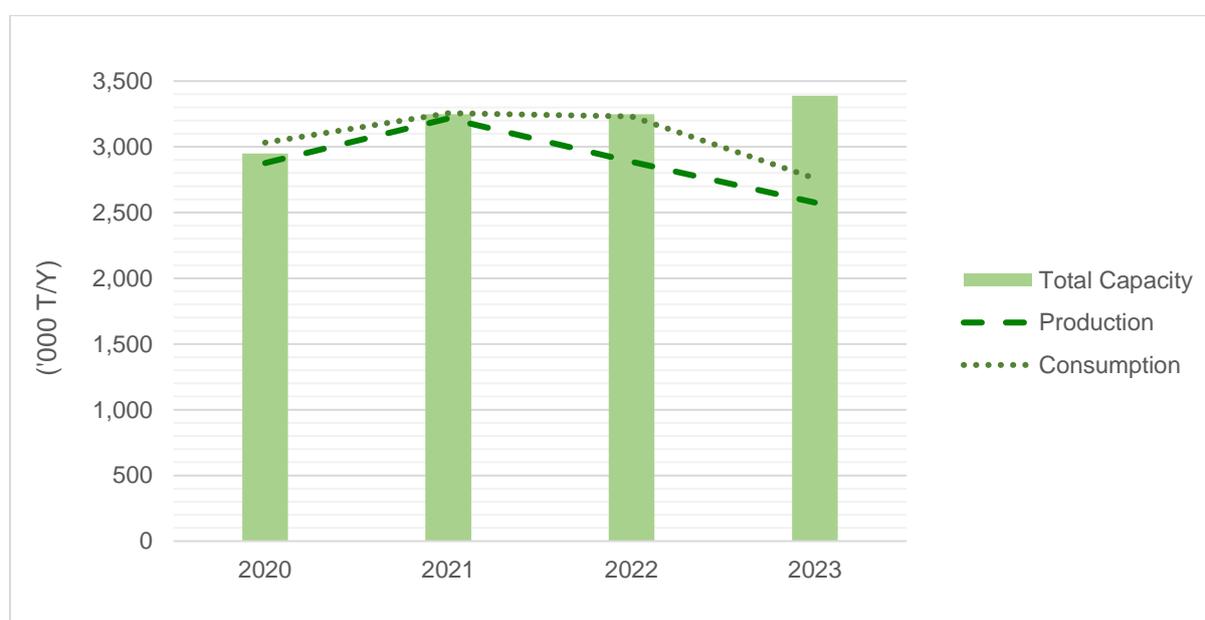
## Olefins: Propylene

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	2,949	3,249	3,249	3,389
▪ <b>Production</b>	2,876	3,216	2,885	2,576
▪ <b>Consumption by Derivative Product</b>	3,033	3,256	2,947	2,760
▪ <b>Export</b>	176	240	132	132
▪ <b>Import</b>	58	33	72	72

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption netbacked from PP, Cumene and PO production.



### ▪ Review of 2023

GC invests in the Olefin 2 Modification Project which increased Propane usage as feedstock and enhances feedstock flexibility for long-term competitiveness. The commercial project operated in the 3rd quarter of 2023. Resulting in Thailand propylene capacity increased to 3,389 KTA from 3,249 KTA.

### ▪ Outlook for 2024

Demand is expected declining economic slowdown and was pressured by new capacity from China.

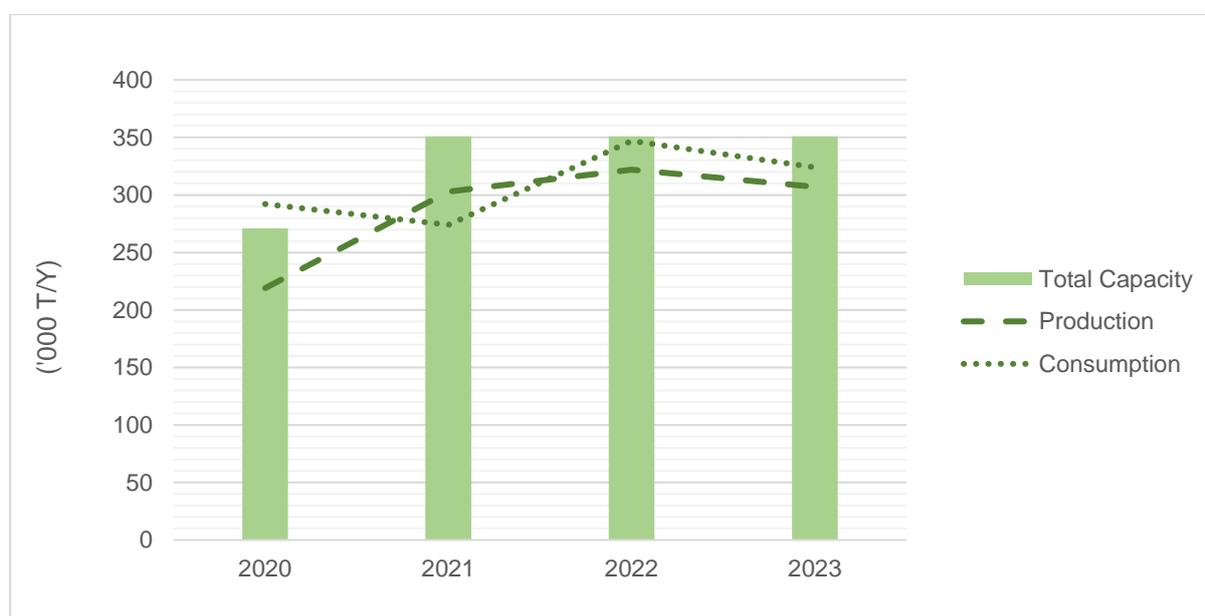
## Olefins : Butadiene

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	271	351	351	351
▪ <b>Production</b>	219	303	322	307
▪ <b>Consumption by Derivative Product</b>	292	322	349	324
▪ <b>Export</b>	36	51	43	36
▪ <b>Import</b>	15	4	2	18

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption netbacked from SBL, ESBR, BR, NBL and ABS/SAN production.



### ▪ Review of 2023

In 2023, the consumption of butadiene saw a decrease of 8% as a result of low demand from ABS production. While car production declined to 1.84 million units from 1.88 million units in 2023.

### ▪ Outlook for 2024

Butadiene consumption is decreasing slightly due to the economic slowdown. Thailand is expected to increase the production of electric vehicles (EVs) driven by government support and will produce 5-70,000 units in 2024.

## Aromatic : Benzene

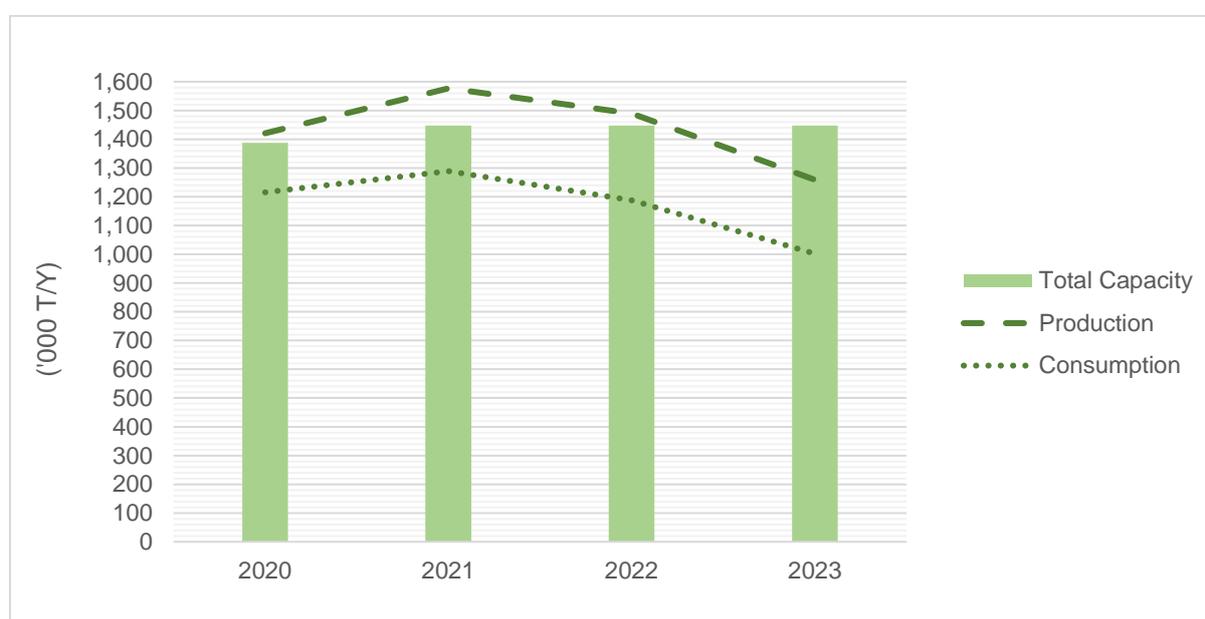
(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	1,388	1,448	1,448	1,448
▪ <b>Production</b>	1,421	1,577	1,490	1,259
▪ <b>Consumption by Derivative Product</b>	1,216	1,289	1,188	1,002
▪ <b>Export</b>	511	621	421	494
▪ <b>Import</b>	0	0	0	7

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption netbacked from SM, cumene and cyclohexane production.

'0' means below 500T/Y



### ▪ Review of 2023

Demand for benzene derivatives was affected by the economic slowdown, due to a drop in demand for electric appliances and electronics such as air conditioners, refrigerators and construction and automotive products.

### ▪ Outlook for 2023

Benzene consumption will continue to be affected by inflation rates, which are causing consumers to limit their spending. Benzene market will be at a similar level as 2023, due to concerns about the economy.

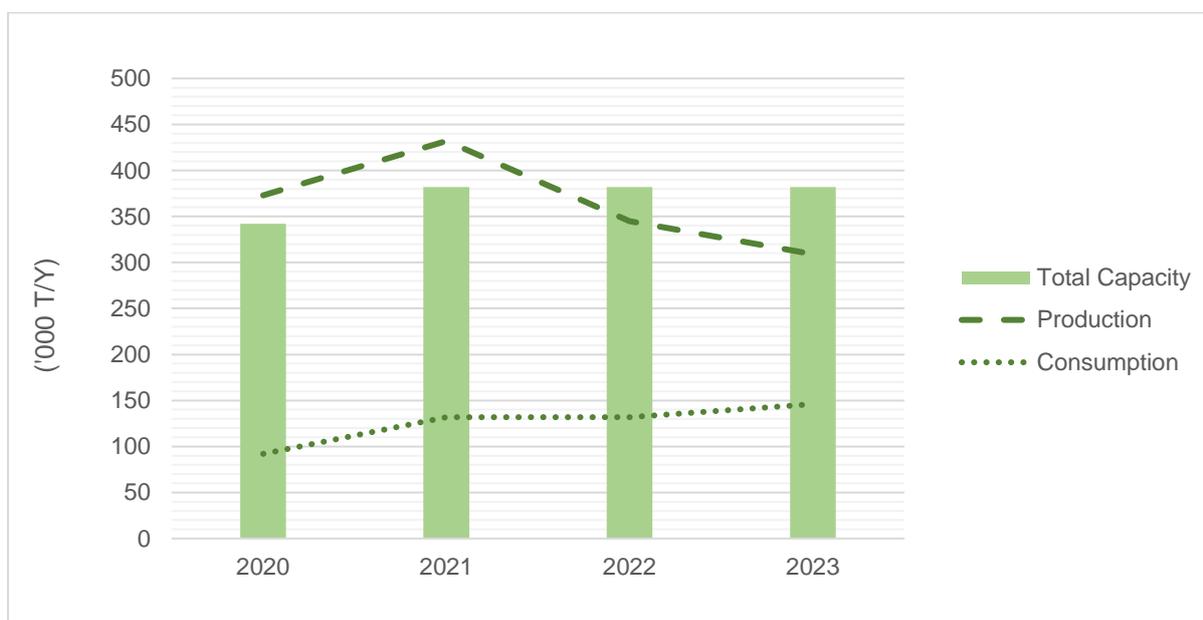
## Aromatic : Toluene

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	342	382	382	382
▪ <b>Production</b>	373	432	345	309
▪ <b>Consumption</b>	92	132	132	146
▪ <b>Export</b>	281	303	213	163
▪ <b>Import</b>	0	3	0	0

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: '0' means below 500 T/Y



### ▪ Review of 2023

The toluene market in 2023 was similarly impacted as the benzene market.

### ▪ Outlook for 2024

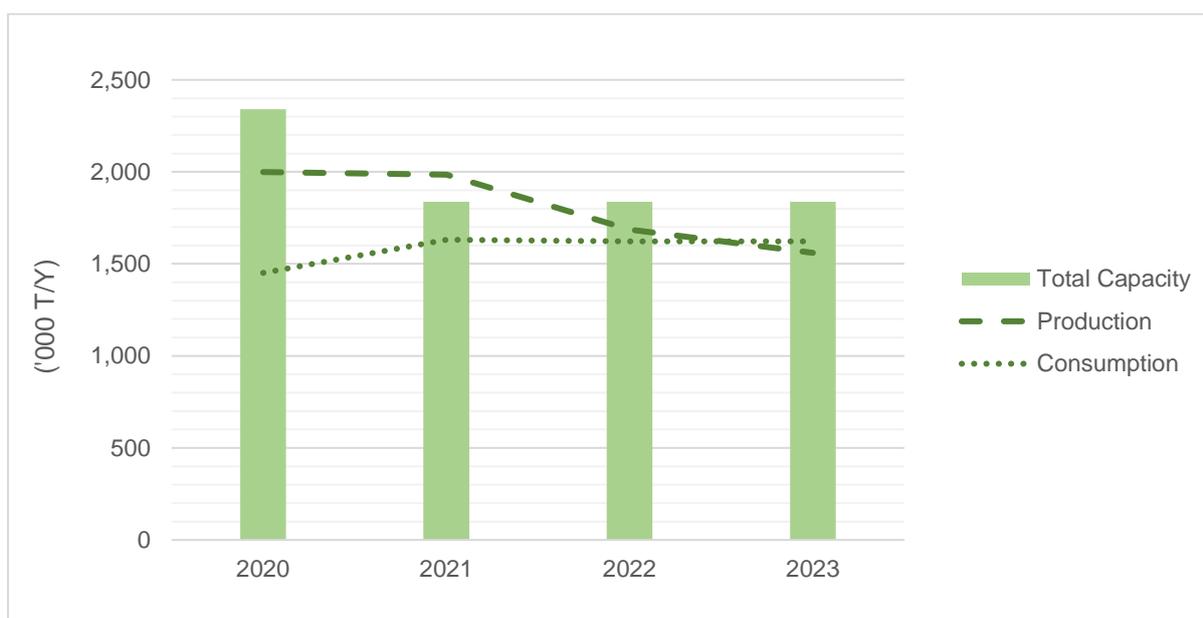
The production of toluene in 2024 is expected to follow a similar trend as benzene, with a potential decrease compared to 2023 due to the ongoing economic slowdown.

## Aromatic : P-Xylene

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Capacity	2,341	1,837	1,837	1,837
▪ Production	1,999	1,985	1,686	1,560
▪ Consumption	1,451	1,631	1,623	1,623
▪ Export	691	459	117	49
▪ Import	142	105	54	112

Source: PTIT Industrial Survey and The Customs Department, Mar 2024



### ▪ Review of 2023

The p-xylene market has been affected by demand for p-xylene derivatives, especially in the textile industry, which has been impacted by the economic slowdown. In addition, China has a policy to increase domestic production and reduce reliance on imports.

### ▪ Outlook for 2024

China's self-sufficient policy impacts more Thailand producers.

## II. Committee Meetings (cont'd)

### II-2. Polyolefins Committee

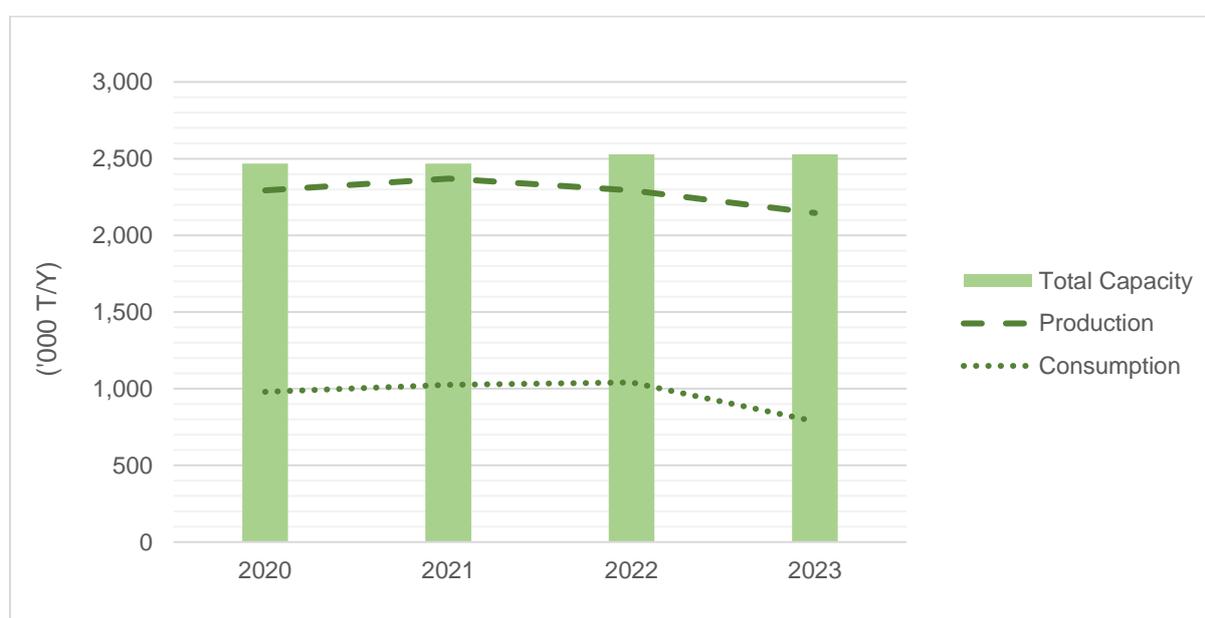
#### LDPE/LLDPE/EVA

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	2,468	2,468	2,528	2,528
▪ <b>Production</b>	2,293	2,370	2,293	2,146
▪ <b>Consumption</b>	979	1,025	1,041	787
▪ <b>Export</b>	1,736	1,739	1,661	1,759
▪ <b>Import</b>	421	393	408	400

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



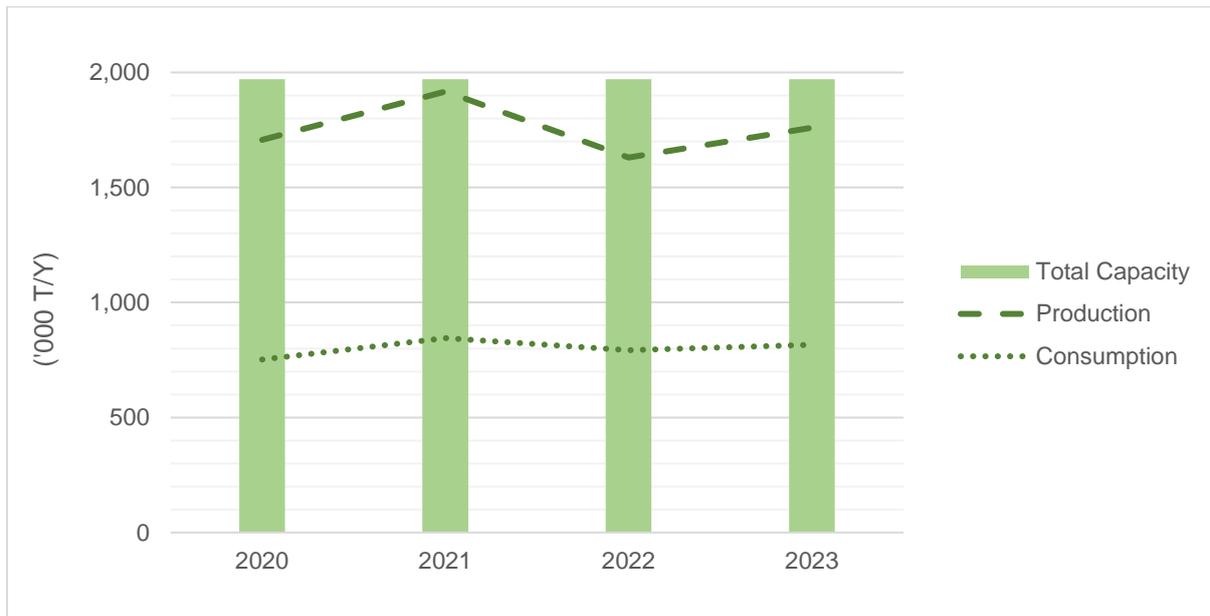
## HDPE

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	1,910	1,970	1,970	1,970
▪ <b>Production</b>	1,707	1,917	1,630	1,760
▪ <b>Consumption</b>	752	845	792	816
▪ <b>Export</b>	1,103	1,203	965	1,076
▪ <b>Import</b>	148	131	127	131

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

PE exports still accounted for over 50% of total production, with China and ASEAN as the largest markets. Demand slowdown following the global economy.

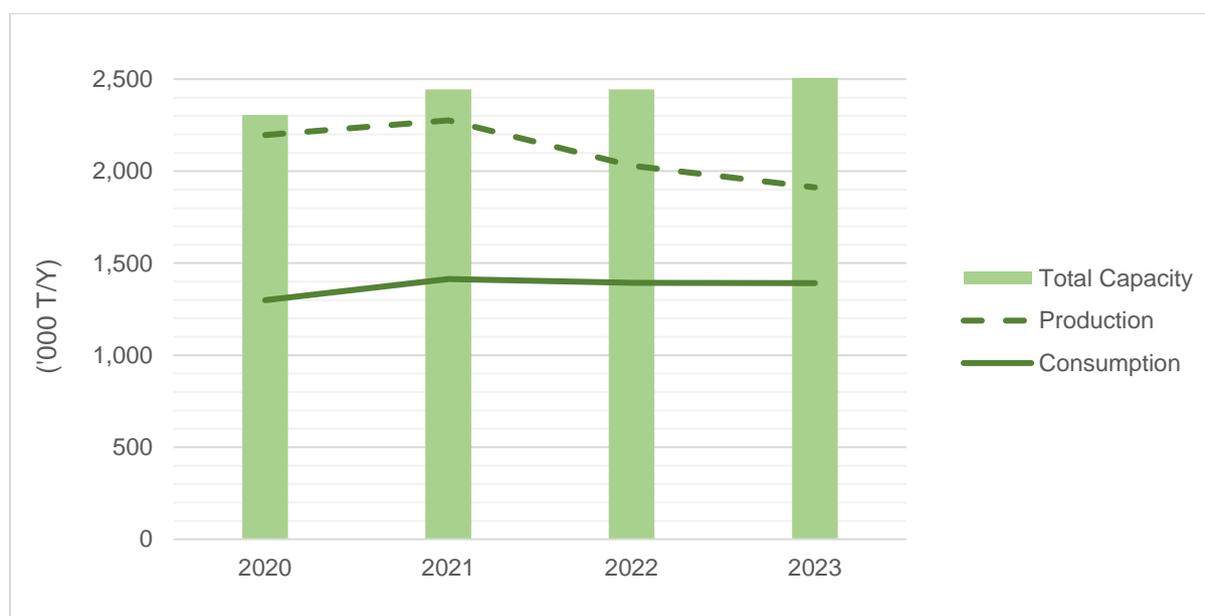
### ▪ Outlook for 2024

PE demand is expected to decrease as the global economy slowdown.

	2020	2021	2022	2023
▪ Total Capacity	2,305	2,445	2,445	2,695
▪ Production	2,196	2,276	2,030	1,912
▪ Consumption	1,299	1,414	1,393	1,392
▪ Export	1,126	1,150	952	910
▪ Import	228	288	315	390

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



#### ▪ Review of 2023

In 2023, HMC expansion capacity to 1,060 KTA, is the highest capacity of PP in Thailand, which target markets are specialty and differentiated products to serve customers in Thailand, SEA, China, India, Africa, Australia, New Zealand and Japan. Demand was stable. More factors caused challenges for PP market as China's self-sufficient policy, environmental problems, and climate change.

#### ▪ Outlook for 2024

Demand is expected to rebound due to better inflation control.

## II. Committee Meetings (cont'd)

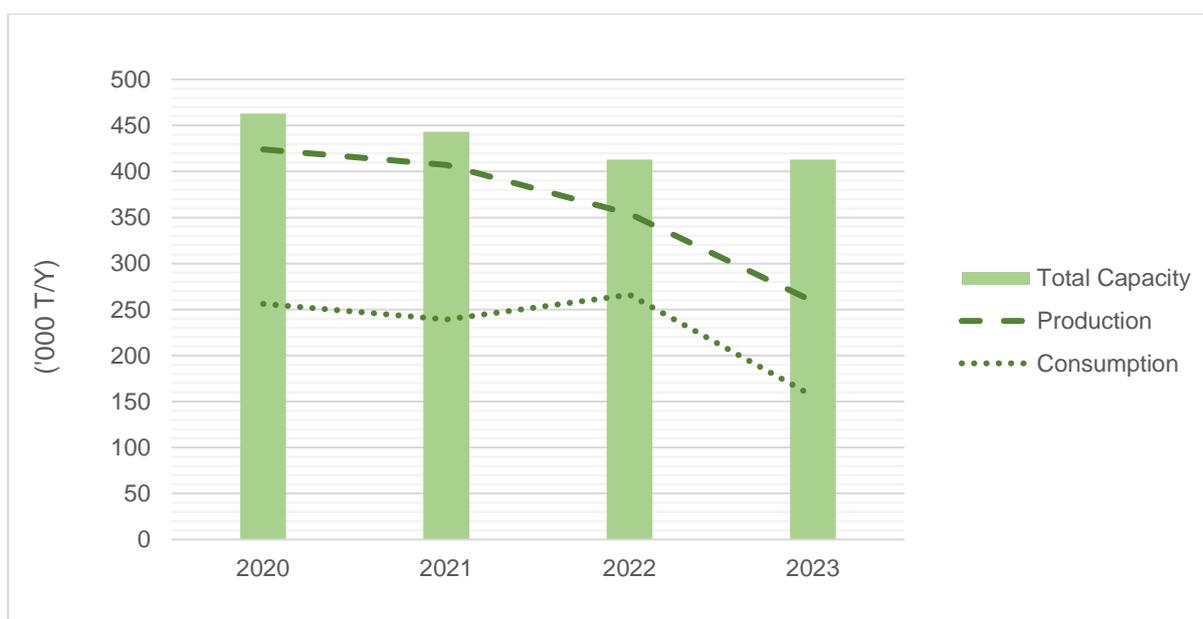
### II-3. Styrenics Committee

#### PS/EPS

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	463	443	413	413
▪ <b>Production</b>	424	407	354	259
▪ <b>Consumption</b>	256	239	266	156
▪ <b>Export</b>	262	281	201	209
▪ <b>Import</b>	94	112	113	106

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



#### ▪ **Review of 2023**

The consumption of EPS has been sluggish. The global economic slowdown, most end-product manufacturers purchased primarily based on necessity. Demand slowed in accordance with global economic conditions, particularly in China, the property crisis effected to households and business, a result consumer spending low, such as electrical appliance.

#### ▪ **Outlook for 2024**

The demand for PS and EPS is expected to remain weak due to high inflation rates, which limit consumer spending and weaken demand for end-use sectors.

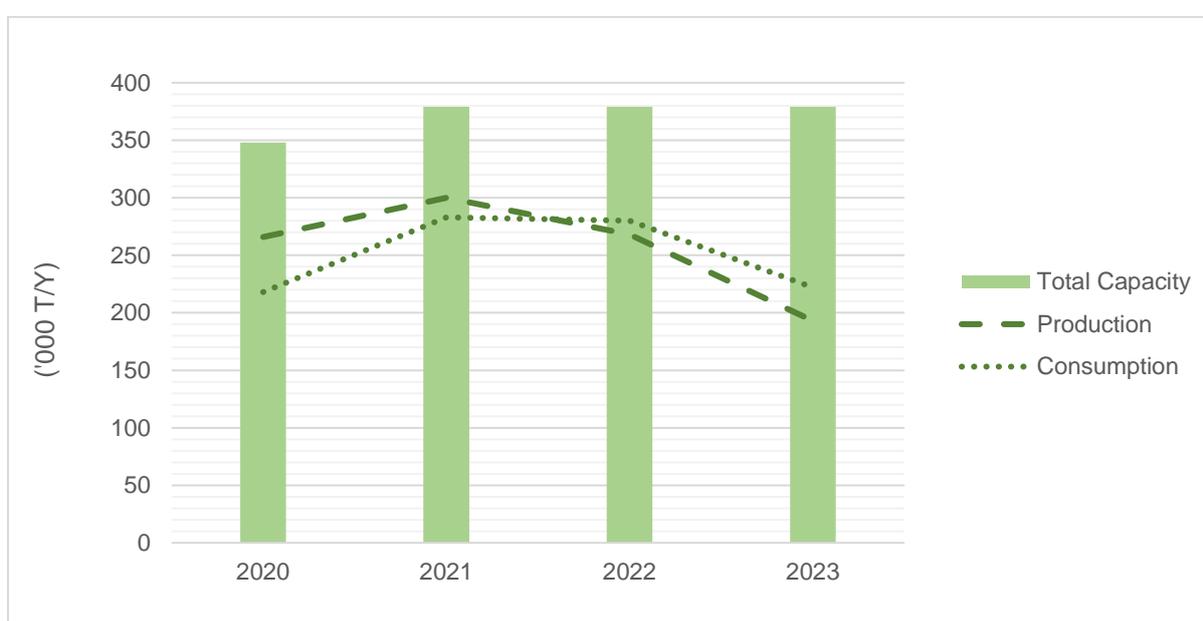
## ABS/SAN

(Unit:'000 T/Y)

	2020	2021	2022	2022
▪ <b>Total Capacity</b>	348	379	379	379
▪ <b>Production</b>	266	300	268	193
▪ <b>Consumption</b>	218	283	280	222
▪ <b>Export</b>	199	189	141	115
▪ <b>Import</b>	152	173	153	144

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

The consumption of ABS/SAN has slowed down significantly, due to the impact of rising inflation rates that also effect the electrical appliance sector.

### ▪ Outlook for 2024

ABS/SAN market will be at a similar level as 2023, due to concerns about the economy, which are causing consumers to limit their spending. This is further weakening the demand for end-use sectors.

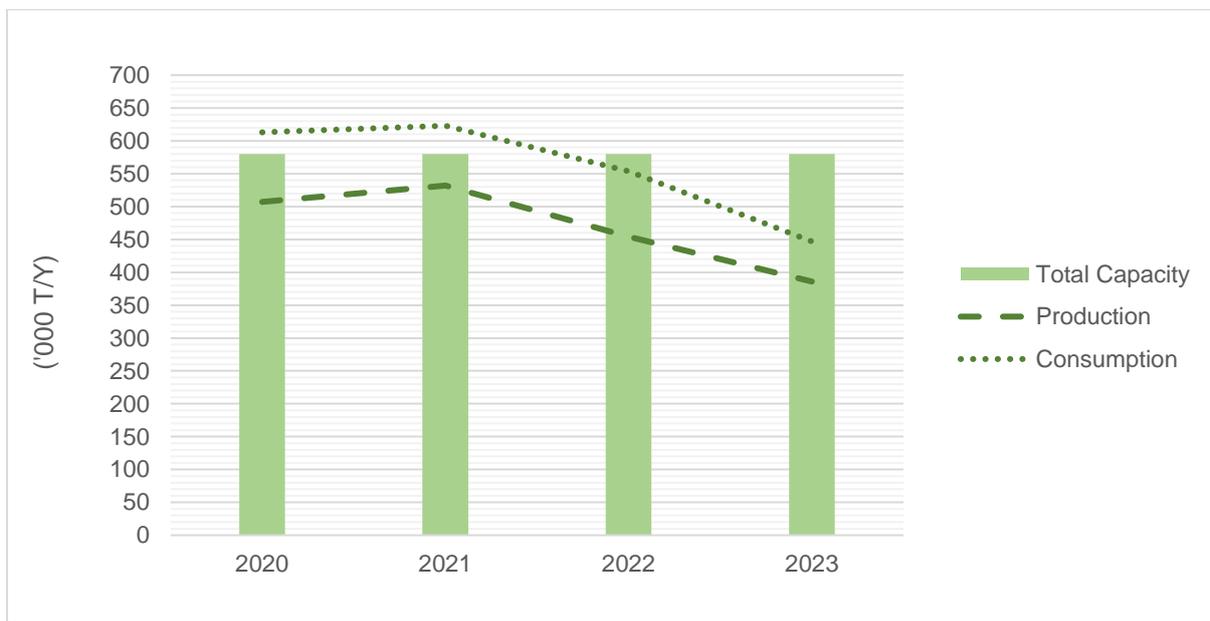
## Styrene Monomer (SM)

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Capacity	580	580	580	580
▪ Production	507	532	454	386
▪ Consumption	613	623	554	447
▪ Export	16	3	6	23
▪ Import	120	136	79	84

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

The SM market in 2023 was similarly impacted as its derivative markets.

### ▪ Outlook for 2024

SM producers are projected to reduce operating rates due to weakened demand for derivatives because of the economic slowdown and sluggish from derivative exports markets.

## II. Committee Meetings (cont'd)

### II-4. PVC Committee

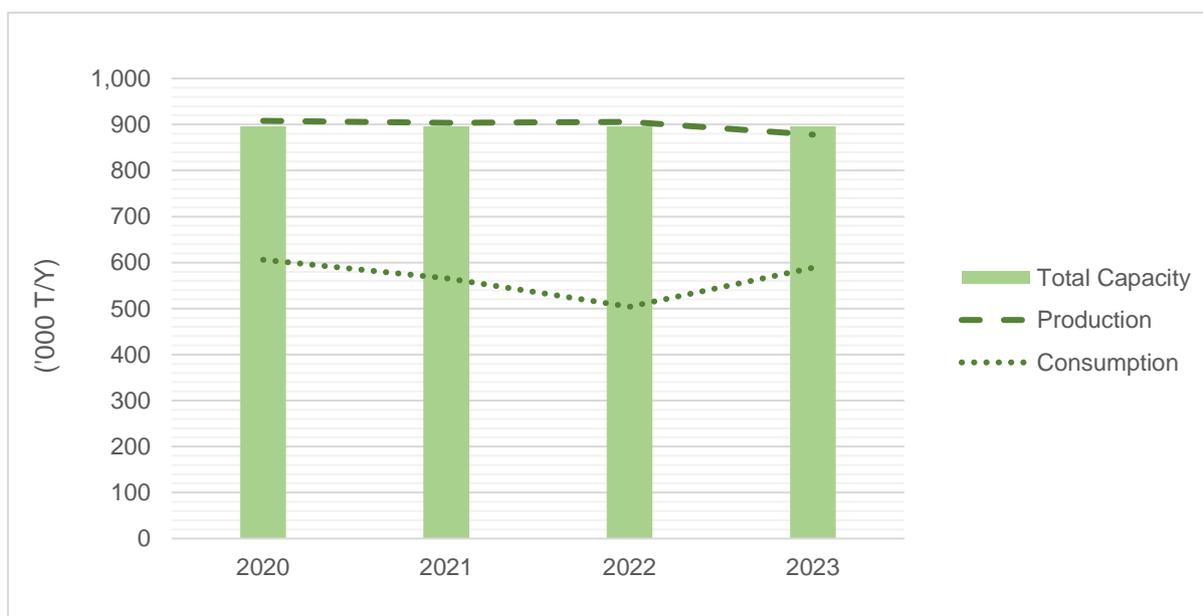
#### PVC

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	896	896	896	896
▪ <b>Production</b>	908	904	906	878
▪ <b>Consumption</b>	606	566	504	589
▪ <b>Export</b>	409	437	499	412
▪ <b>Import</b>	106	99	97	123

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



#### ▪ **Review of 2023**

Local PVC consumption increased by 17% in 2023, despite being affected by a slowdown in the construction sector.

#### ▪ **Outlook for 2024**

In 2024, the PVC market is likely to face challenges due to weak domestic demand and oversupply. The slowdown in the economy has resulted in lower demand from the construction sector.

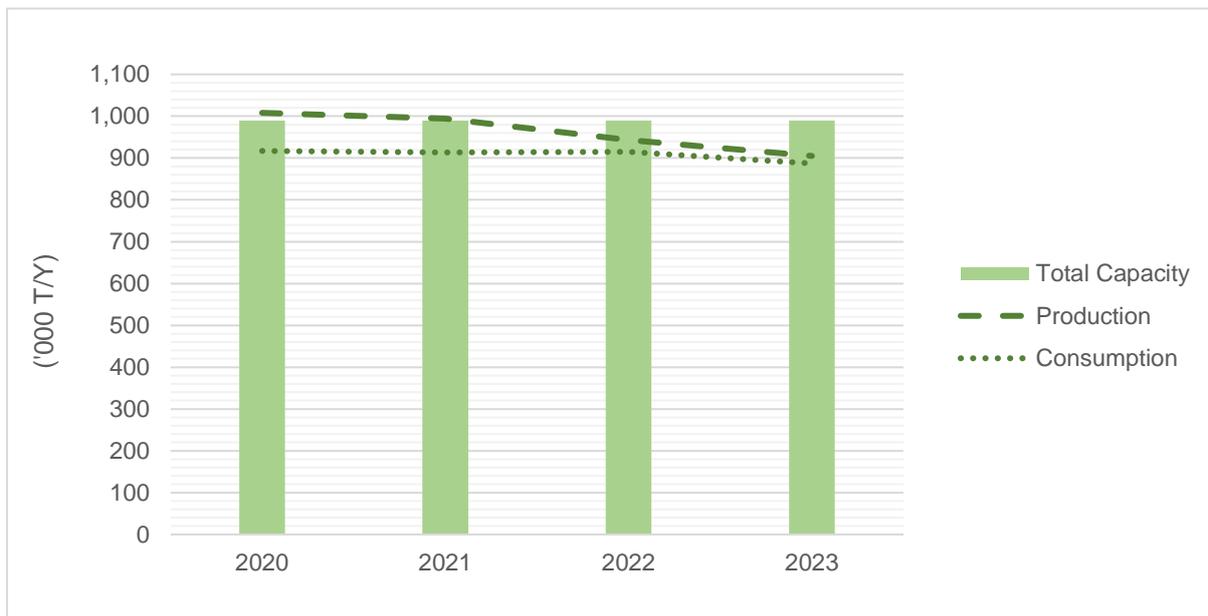
## VCM

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	990	990	990	990
▪ <b>Production</b>	1,008	994	943	905
▪ <b>Consumption by Derivative Product</b>	917	913	915	887
▪ <b>Export</b>	95	81	58	99
▪ <b>Import</b>	-	-	-	-

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: \*Consumption by derivative netbacked from PVC production.



### ▪ **Review of 2023**

The VCM market in 2023 was similarly impacted as PVC markets.

### ▪ **Outlook for 2024**

The outlook for VCM in 2024 is expected to face similar challenges as the PVC market, with uncertainty in demand and economic recovery being major concerns.

## II. Committee Meetings (cont'd)

### II-5. Synthetic Rubber Committee

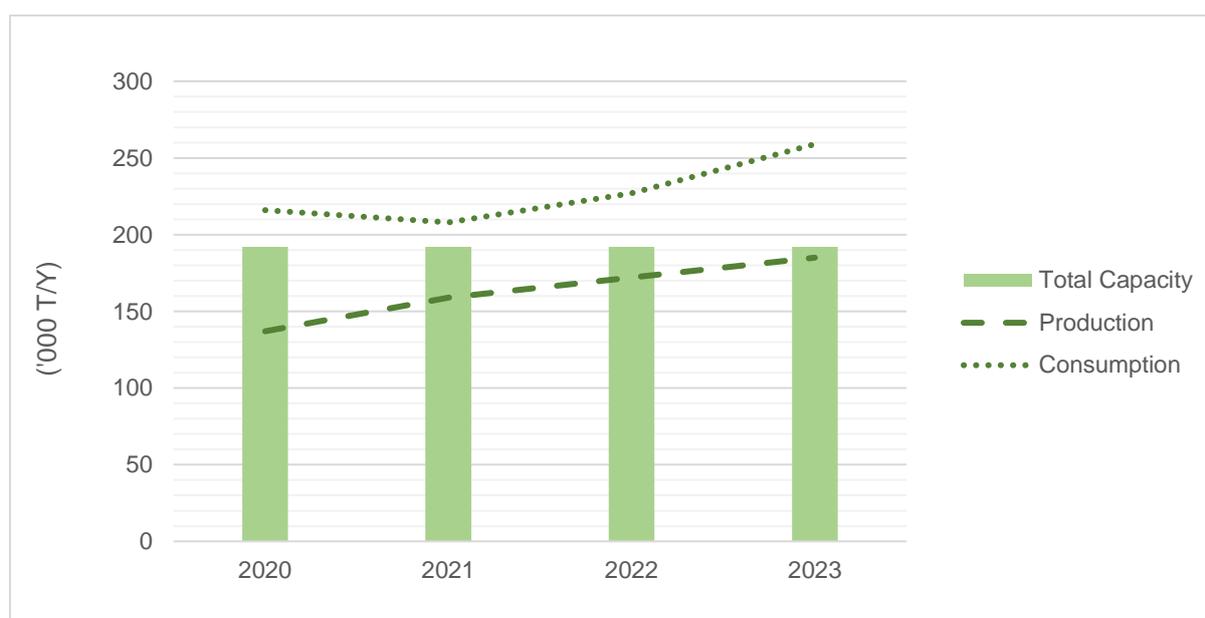
#### SBR

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	192	192	192	192
▪ <b>Production</b>	137	159	172	185
▪ <b>Consumption</b>	216	208	227	259
▪ <b>Export</b>	92	99	93	107
▪ <b>Import</b>	171	148	148	181

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: - Consumption figures deviate from normal calculation (Production + Import – Export).  
- Harmonized code is 4002.19



#### ▪ **Review of 2023**

SBR production increased by 7% compared with the previous year. Domestic consumption increased supported by a strong demand from the automotive sector.

#### ▪ **Outlook for 2024**

SBR domestic consumption is expected to slightly increase.

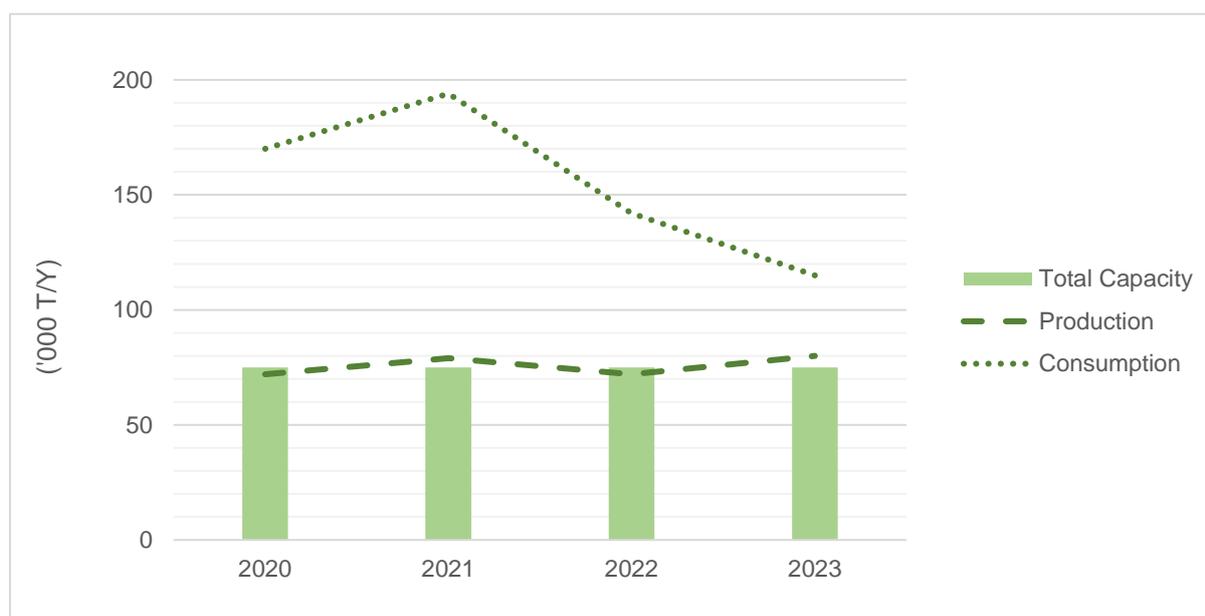
## BR

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	75	75	75	75
▪ <b>Production</b>	72	79	72	80
▪ <b>Consumption</b>	170	194	142	115
▪ <b>Export</b>	41	35	38	45
▪ <b>Import</b>	140	150	107	117

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

BR consumption decreased from growth car production.

### ▪ Outlook for 2024

BR consumption is decreasing slightly due to the economic slowdown. Thailand is expected to increase the production of electric vehicles (EVs) driven by government support and will produce 5-70,000 units in 2024.

## II. Committee Meetings (cont'd)

### II-6. Synthetic Fiber Raw Materials Committee

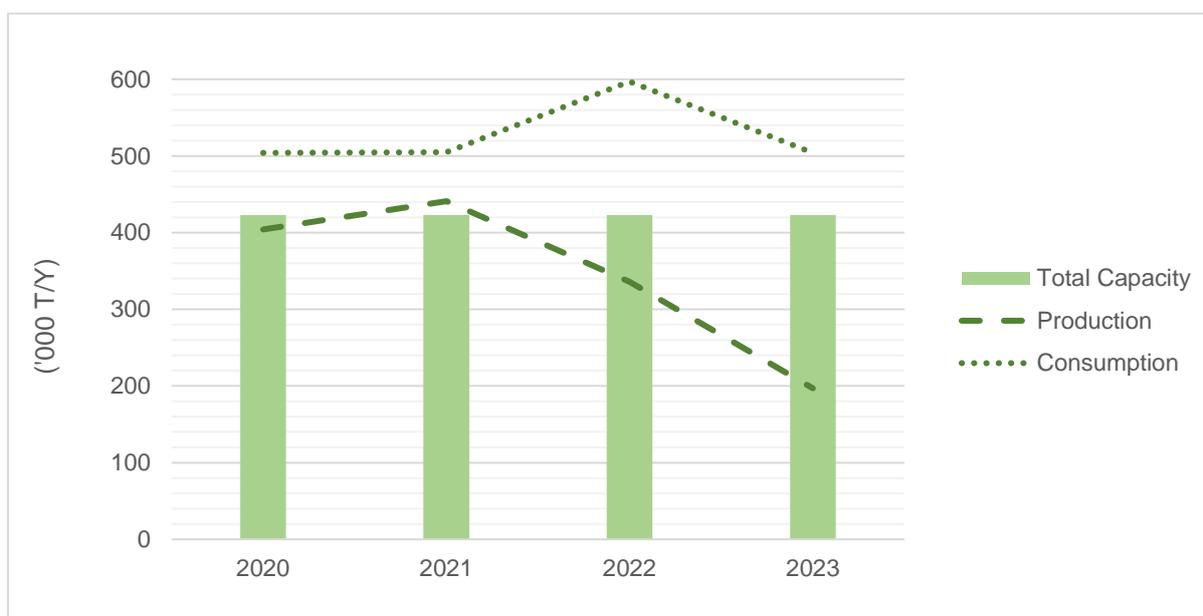
#### Ethylene Glycol (EG)

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Capacity	423	423	423	423
▪ Production	404	441	336	197
▪ Consumption by Derivative Product	504	505	597	504
▪ Export	34	13	14	9
▪ Import	140	168	236	418

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: \*Consumption netbacked from polyester polymer production.



#### ▪ Review of 2023

In 2023, EG production declined due to shutdown maintenance and low demand from derivatives.

#### ▪ Outlook for 2024

The PTA market in 2023 was similarly impacted as EG markets, demand may rebound from trade and tourism.

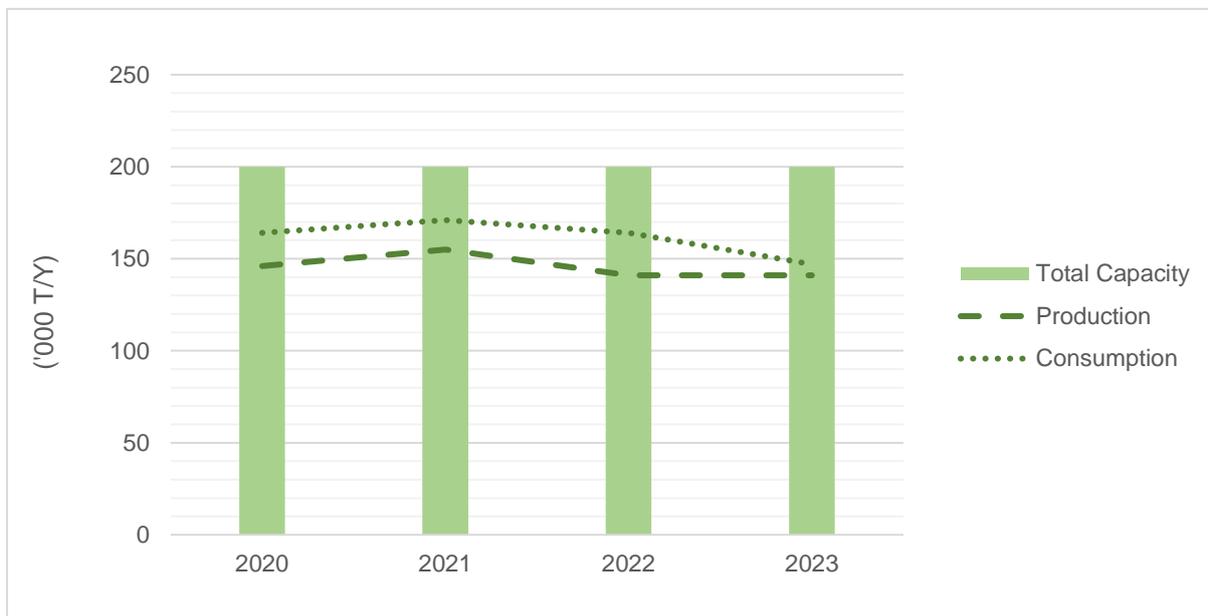
## Acrylonitrile

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	200	200	200	200
▪ <b>Production</b>	146	155	141	141
▪ <b>Consumption by Derivative Product</b>	164	171	164	147
▪ <b>Export</b>	23	32	26	38
▪ <b>Import</b>	19	19	30	19

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: \*Consumption netbacked from ABS/ SAN and acrylic fibre production.



### ▪ Review of 2023

The demand for acrylonitrile saw sluggish growth, causing a 10% decrease in local acrylonitrile consumption in 2023. Thailand acrylonitrile is the world's first manufacturing plant to use propane as feedstock place of propylene.

### ▪ Outlook for 2024

Acrylonitrile market will be at a similar level as 2023, due to concerns about the economy.

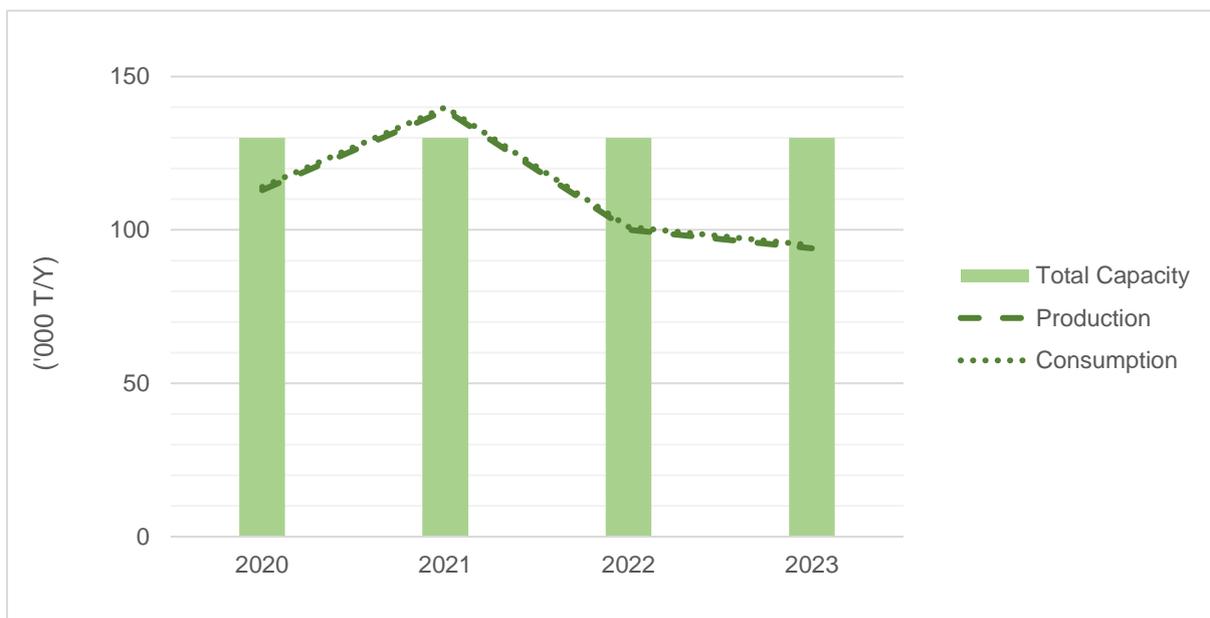
## Caprolactam

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	130	130	130	130
▪ <b>Production</b>	124	139	100	94
▪ <b>Consumption by Derivative Product</b>	114	140	101	95
▪ <b>Export</b>	39	37	27	24
▪ <b>Import</b>	2	0	0	0

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: \*Consumption is netbacked from Nylon 6 production.



### ▪ Review of 2023

Caprolactam production in Thailand decreased by 5% in 2023, along with a corresponding decline in domestic consumption. This was largely attributed to the economic slowdown in the country.

### ▪ Outlook for 2024

Domestic consumption is expected to decrease slightly, driven by the economic slowdown. Additionally, the caprolactam market is expected to see greater self-sufficiency in China in 2024.

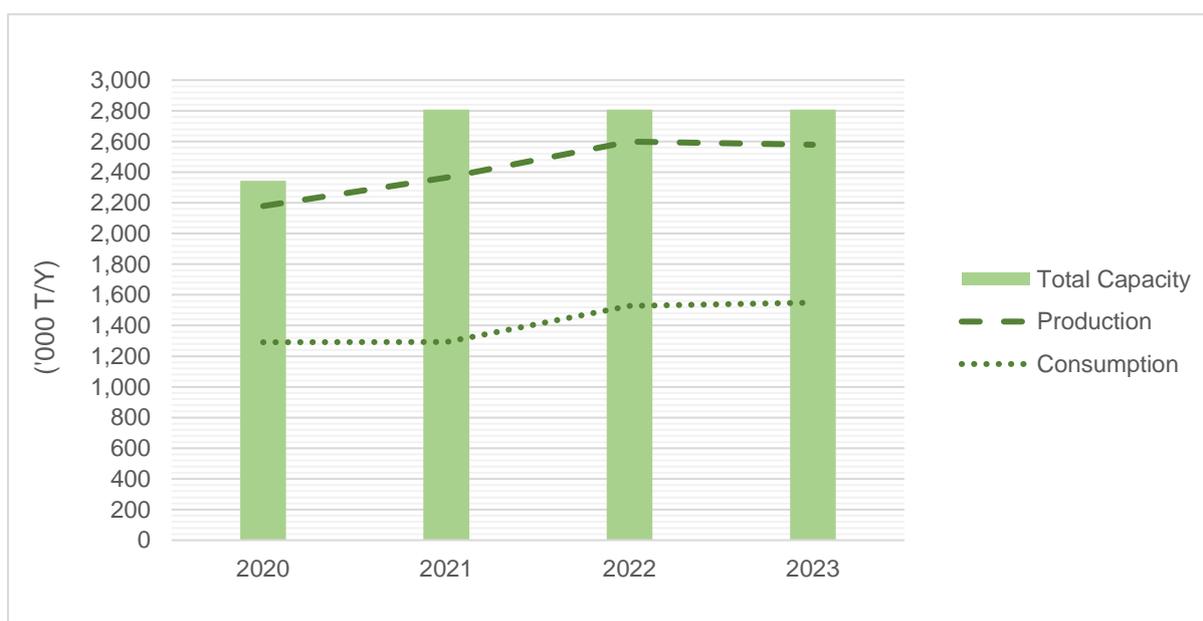
## Terephthalic Acid (PTA)

(Unit: '000 T/Y)

	2020	2021	2022	2023
▪ <b>Total Capacity</b>	2,343	2,809	2,809	2,809
▪ <b>Production</b>	2,179	2,364	2,599	2,580
▪ <b>Consumption</b>	1,291	1,292	1,527	1,549
▪ <b>Export</b>	897	1,089	1,073	1,039
▪ <b>Import</b>	9	16	1	8

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

PTA demand was sluggish due to slight demand from PET. In addition, China's economic slowdown, exports to Europe and the USA were reduced.

### ▪ Outlook for 2024

PTA demand may rebound from trade and tourism.

## II. Committee Meetings (cont'd)

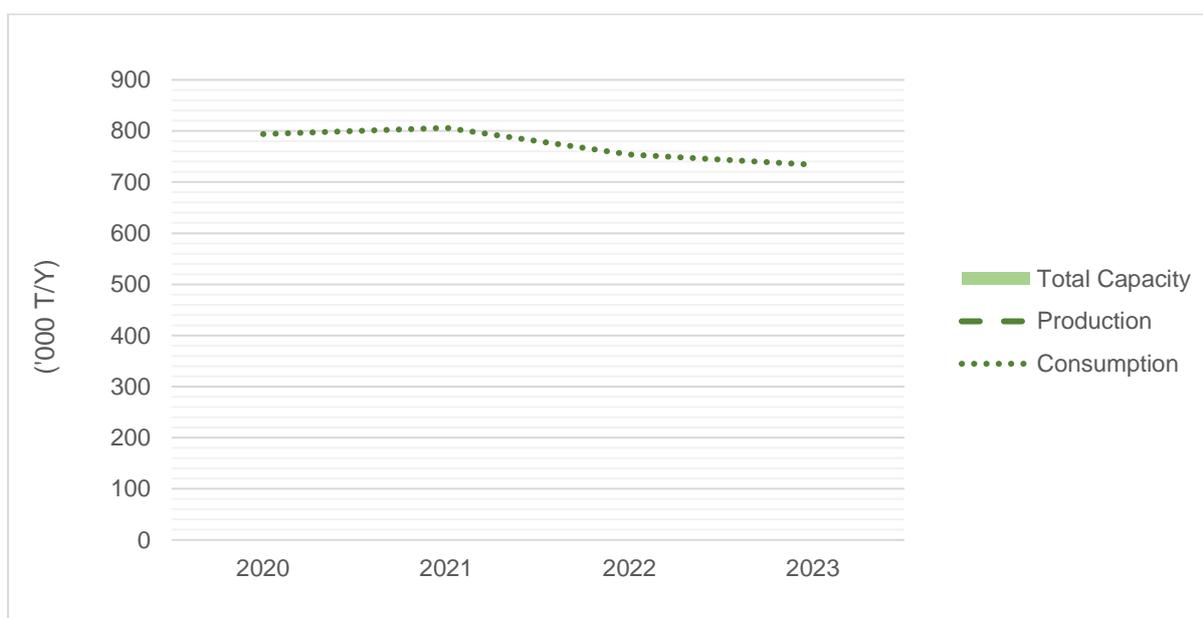
### II-7. Chemicals Committee

#### Methanol

	2020	2021	2022	2023
▪ Total Capacity	-	-	-	-
▪ Production	-	-	-	-
▪ Consumption	793	802	750	731
▪ Export	1	4	4	3
▪ Import	794	806	754	734

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: - Consumption figures deviate from normal calculation (Production + Import – Export).  
 - Harmonized code is 2905.11



#### ▪ Review of 2023

Thailand relies entirely on imported methanol to meet its demand. The country's methanol consumption has remained stable since 2020 with a slight improvement in demand, driven mainly by MMA and POM production.

#### ▪ Outlook for 2024

While methanol consumption in Thailand is expected to remain stable in 2024, the demand for derivative products may be affected by the slowdown in both local and export country demand due to the overall global rise in inflation.

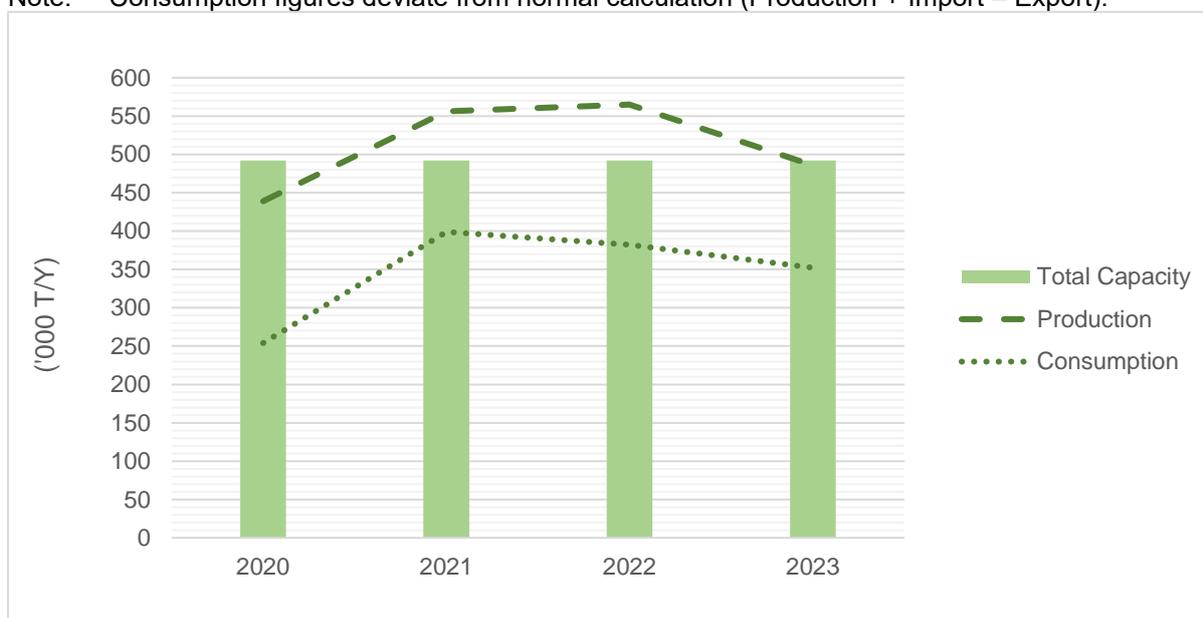
## Phenol

(Unit:'000 T/Y)

	2020	2021	2022	2023
▪ Total Capacity	492	492	492	492
▪ Production	439	556	565	486
▪ Consumption	254	399	382	352
▪ Export	225	193	191	177
▪ Import	40	36	7	43

Source: PTIT Industrial Survey and The Customs Department, Mar 2024

Note: Consumption figures deviate from normal calculation (Production + Import – Export).



### ▪ Review of 2023

In 2023, the phenol market was negatively impacted by an economic slump, leading to a decrease in the demand for end-products and lower local prices. As a result, local consumption of phenol derivatives decreased by approximately 7%.

### ▪ Outlook for 2024

Demand is decreasing slightly due to the economic slowdown.