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K O R E A



Korea Petrochemical Industry Association(KPIA)

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I . Country Report

Status and Prospect of the Petrochemical Industry of Korea

1. Status and Prospect of the Korean Economy

The recent domestic economy has been slowed down due to the down turn in global demand following the financial crisis in Europe, psychological instability under the long-term uncertainty from deepening exchange rate fluctuation and so forth.

After the 4Q of 2012, the slowdown in the growth has been slightly improved to sustain the moderate recovery. The domestic indexes on retail sales, facility investment and others was somewhat slow in the beginning part of the year and it is mainly attributable to the particular factors in base effect.

The recent employment market (as of January) has a slight expansion of employer increase range (compared to the same term of the previous year, 277,000→ 322,000 employees), but the employment rate has sustained its stagnation level and the consumer price has shown increase in agriculture products, petroleum price and others but the livestock price has declined to maintain the stable trend for 1% range.

Export has made some decrease in the compared to the same term of the previous year due to the effect of reduction in the number of business days following the Lunar New Year in February, but the trend has turned into slow recovery trend.

However, due to the lack of vitality throughout economy, the government shows the trend of focusing on facilitation of economy by supplementing the private demand through early execution of the finance in the first half.

< Status and prospects of major economic indicators (Unit : %) >

	2012	2013					
		First half		Second half		Annual	
		KIET	LGERI	KIET	LGERI	KIET	LGERI
GDP	2.2	2.4	2.8	3.8	3.9	3.1	3.4
Private consumption	1.7	2.2	2.5	3.4	2.8	2.8	2.7
Construction investment	▼0.9	2.8	0.6	2.1	1.3	2.4	0.9
Facility investment	▼1.1	1.03.8	1.1	9.2	5.1	5.1	3.0

Notice : 1. Rate of fluctuation for compared to the same term of the previous year, 2. LGERI: LG Economy Research Institute ('12.12), 3. KIET: Korea Institute for Industrial Economics & Trade ('12.12)

2. Status of Petrochemical Industry

[Status of 2012]

In 2012, the domestic petrochemical supply (based on 3 major fields) recorded its production of 21.28 million tons, an increase of 0.1% compared to the previous year and demand of 10.52 million tons, an decrease of 0.4% compared to the previous year.

Status of supply in 3 Sectors (Unit: 1,000 tons)

		2011						2012					
		1H		2H		Total		1H		2H		Total	
			G.R		G.R		G.R		G.R		G.R		G.R
Syn. Resin	Pro	5,728	-1.5%	5,844	-1.7%	11,572	-1.6%	5,808	1.4%	6,158	5.4%	11,966	3.4%
	Exp	3,279	-4.7%	3,491	-0.7%	6,771	-2.7%	3,373	2.9%	3,755	7.6%	7,128	5.3%
	Imp	144	58.4%	131	31.8%	275	44.5%	143	-1.1%	155	18.4%	298	8.2%
	Dem	2,594	5.3%	2,483	-1.8%	5,077	1.7%	2,578	-0.6%	2,558	3.0%	5,135	1.2%
Syn. Fiber	Pro	4,243	-1.5%	4,454	4.2%	8,697	1.3%	4,266	0.5%	4,042	-9.2%	8,309	-4.5%
	Exp	2,024	-7.4%	2,227	2.4%	4,251	-1.4%	2,025	0.1%	1,943	-12.7%	3,968	-6.7%
	Imp	312	14.4%	292	-5.7%	604	2.3%	298	-4.6%	308	5.4%	606	0.3%
	Dem	2,531	5.7%	2,519	4.4%	5,050	3.8%	2,548	0.7%	2,405	-4.5%	4,952	-1.9%
Syn. Rubber	Pro	486	13.2%	502	11.9%	988	12.6%	500	2.9%	506	0.8%	1,006	1.9%
	Exp	297	9.8%	317	12.5%	613	11.2%	304	2.4%	338	6.0%	642	4.3%
	Imp	33	-4.6%	29	-20.6%	62	-12.8%	33	-0.2%	37	29.9%	70	13.8%
	Dem	223	14.7%	214	5.3%	437	9.9%	230	3.1%	204	-2.9%	434	0.2%
Total	Pro	10,458	-0.9%	10,800	1.2%	21,257	0.2%	10,574	1.1%	10,706	-0.9%	21,281	0.1%
	Exp	5,600	-5.1%	6,035	1.9%	11,635	-1.6%	5,702	1.8%	6,037	0.0%	11,739	0.9%
	Imp	490	22.8%	452	-0.3%	942	10.5%	474	-3.2%	500	10.6%	974	3.4%
	Dem	5,348	5.8%	5,216	0.3%	10,564	3.0%	5,356	0.1%	5,166	-1.0%	10,522	-0.4%

(Data) Korea Petrochemical Industry Association

(Note) 1. The production is based on sales.

2. 3 Sector is Synthetic resin, Synthetic Fiber, Synthetic Rubber

In spite of its adjustment of operation rate under the regular repairing in spring and slow down in the industry, the production has enjoyed an increase of 0.4%p compared to the previous year with the increase of facilities in NCC and downstream. Export made a growth of 1% compared to the previous year due to the global economy depression, slow down in demand for China as its major export market, progress of self-sufficiency and others.

[Prospects for 2013]

In 2013, the domestic petrochemical supply (based on 3 major fields) recorded its production of 21.52 million tons, an increase of 1.1% compared to the previous year and demand of 10.56 million tons, an increase of 0.3% compared to the previous year. The production is expected to slow down with the factors of reduction with the restriction in the increase for operation rate following the competitions among the major countries other than the completion of new major facilities and reduction of new investment cases compared to the previous year in 2012.

With respect to export, the export capability under the new investment that had been sustained to this point has been increasing, but it is expected to have its increase range to be restricted due to the self-sufficiency progress in major competitors in Middle East and China. The domestic demand is expected to settle the low growth trend with the weakening purchase psychology and replacement of domestic export following overseas production of major industries.

Current status and prospects of demand and supply in 3 sectors (Unit: 1,000 tons)								
		'05	'11	'12	G.R	'13(F)	G.R	AAGR ('05~'13)
Syn. Resin	Product	10,287	11,572	11,966	3.4%	12,109	1.2%	2.1%
	Import	142	275	298	8.2%	331	11.2%	11.1%
	Sub-Total	10,429	11,847	12,264	3.5%	12,440	1.4%	2.2%
	Export	5,828	6,771	7,128	5.3%	7,180	0.7%	2.6%
	Sub-Total	4,601	5,077	5,135	1.2%	5,185	1.0%	1.5%
	self-suffi. (%)	224	228	233		230		
Syn. Fiber	Product	7,393	8,697	8,309	-4.5%	8,296	-0.2%	1.5%
	Import	755	604	606	0.3%	571	-5.8%	-3.4%
	Sub-Total	8,148	9,302	8,915	-4.2%	8,867	-0.5%	1.1%
	Export	3,281	4,251	3,968	-6.7%	3,588	-9.6%	1.1%
	Sub-Total	4,866	5,050	4,952	-1.9%	4,939	-0.3%	0.2%
	self-suffi. (%)	152	172	168		163		
Syn. Rubber	Product	474	988	1,006	1.8%	1,117	11.0%	11.3%
	Import	34	62	70	12.8%	53	-25.1%	5.6%
	Sub-Total	508	1,050	1,076	2.5%	1,169	8.7%	11.0%
	Export	276	613	642	4.7%	676	5.3%	11.8%
	Sub-Total	232	437	434	-0.6%	434	0.0%	8.1%
	self-suffi. (%)	204	226	232		248		
Total	Product	18,154	21,257	21,281	0.1%	21,522	1.1%	2.1%
	Import	931	942	974	3.4%	954	-2.0%	0.3%
	Sub-Total	19,085	22,199	22,254	0.2%	22,476	1.0%	2.1%
	Export	9,384	11,635	11,738	0.9%	11,444	-2.5%	2.5%
	Sub-Total	9,700	10,564	10,522	-0.4%	10,558	0.3%	1.1%
	self-suffi. (%)	187	201	202		199		

(Data) Korea Petrochemical Industry Association

□ Supply and Demand Trends by Sectors

(1) Synthetic resins

[Status in 2012]

In 2012, the domestic synthetic resin supply has the production of 11.96 million tons, an increase of 3.4% compared to the previous year, and the demand of 5.13 million tons, an increase of 1.2% compared to the previous year.

The production has increased due to the reduction in the number of regular repair cases, implementation of new facility increase and others and the export has the growth of only 3% in the first half due to the lack of demand following the retrenchment policy of China, a major export market, but it has shown outstanding annual performance with its economy boosting effect of major countries after the second half.

However, the export price is shown to be declined compared to the previous year with expansion of market share rate of the Middle East products, expansion of inflow of shale gas-based North American products to Asia, and others. For a reference, the export price (USD/ton, % compared to the previous year, MTI 21) has shown to be USD 1,579/ton in 2012, a decrease of 5% compared to the previous year from USD 1,662/ton in 2011.

The domestic demand showed declining trend due to the slow down in sales of durable goods, such as, home appliance products during the first half, but it was shown to recover after the second half with the purchase to transfer from expiration of the automobile related

tax incentive and others.

Current status and prospects of supply and demand for synthetic resins (Unit: 1,000 tons)

		2011		2012						2013(F)		
		Total		1H		2H		Total		Total		
			G.R		G.R		G.R		G.R		G.R	
LDPE	Pro	2,010	-2.4%	1,005	4.5%	1,063	1.4%	2,068	2.9%	2,107	1.9%	
	EX	1,049	1.5%	492	4.7%	562	-2.9%	1,054	0.5%	1,094	3.8%	
	IM	93	94.6%	50	7.8%	53	14.8%	103	11.3%	122	17.9%	
	Dem	1,054	-1.9%	563	4.6%	554	7.5%	1,117	6.0%	1,135	1.6%	
HDPE	Pro	1,986	-0.5%	1,006	4.7%	1,117	8.9%	2,123	6.9%	2,199	3.6%	
	EX	1,078	-3.7%	560	15.0%	676	14.5%	1,236	14.7%	1,304	5.5%	
	IM	36	136.8%	16	-22.9%	16	3.4%	32	-11.7%	67	110.7%	
	Dem	944	5.8%	462	-6.6%	456	1.5%	918	-2.7%	932	1.5%	
PP	Pro	3,730	-2.0%	1,852	2.7%	2,022	4.9%	3,874	3.9%	3,885	0.3%	
	EX	2,223	-3.7%	1,092	4.3%	1,284	9.2%	2,376	6.9%	2,230	-6.2%	
	IM	27	24.2%	12	-12.2%	11	-12.8%	23	-12.5%	30	28.0%	
	Dem	1,534	1.0%	772	0.2%	749	-1.9%	1,521	-0.8%	1,640	7.8%	
PS	Pro	1,047	3.3%	527	-2.6%	523	3.3%	1,050	0.2%	1,083	3.2%	
	EX	629	3.6%	313	-7.3%	296	1.5%	609	-3.3%	628	3.2%	
	IM	20	-40.5%	10	-6.3%	10	11.6%	20	2.2%	22	9.3%	
	Dem	438	-0.5%	223	4.6%	238	6.0%	461	5.3%	476	3.3%	
	EPS	Pro	378	10.8%	203	12.3%	203	2.7%	406	7.3%	426	5.0%
		EX	139	12.3%	79	11.5%	68	-0.1%	147	5.8%	154	4.3%
		IM	3	-51.1%	1	-42.8%	1	-44.3%	2	-43.4%	1	-23.7%
		Dem	242	8.4%	125	12.0%	135	3.8%	260	7.6%	274	5.2%
	PS	Pro	669	-0.5%	324	-10.1%	320	3.7%	644	-3.8%	657	2.0%
		EX	490	1.4%	234	-12.4%	227	2.0%	461	-5.8%	475	2.9%
		IM	17	-38.4%	9	-0.2%	10	20.1%	19	9.5%	21	12.1%
		Dem	196	-9.6%	99	-3.5%	102	9.1%	201	2.6%	203	0.9%
PVC	Pro	1,405	-0.2%	705	-1.3%	701	1.4%	1,405	0.0%	1,375	-2.2%	
	EX	657	6.0%	359	17.7%	367	4.3%	726	10.5%	766	5.5%	
	IM	93	41.4%	51	2.1%	62	43.1%	113	21.1%	80	-29.3%	
	Dem	841	-1.5%	397	-13.5%	395	3.5%	792	-5.8%	689	-13.0%	
ABS	Pro	1,394	-5.5%	713	-4.6%	733	13.3%	1,446	3.7%	1,460	1.0%	
	EX	1,135	-10.7%	557	-12.1%	569	13.5%	1,126	-0.8%	1,157	2.7%	
	IM	6	-4.4%	3	29.9%	2	-38.7%	6	-9.8%	10	75.4%	
	Dem	265	25.3%	160	36.9%	166	11.4%	325	22.6%	313	-3.8%	
Total	Pro	11,572	-1.6%	5,808	1.4%	6,158	5.4%	11,966	3.4%	12,109	1.2%	
	EX	6,771	-2.7%	3,373	2.9%	3,755	7.6%	7,128	5.3%	7,180	0.7%	
	IM	275	44.5%	143	-1.1%	155	18.4%	298	8.2%	331	11.2%	
	Dem	5,077	1.7%	2,578	-0.6%	2,558	3.0%	5,135	1.2%	5,185	1.0%	

(Data) Korea Petrochemical Industry Association

[Prospects for 2013]

In 2013, the domestic synthetic resin supply has the production of 12.11 million tons, an increase of 1.2% compared to the previous year, and the demand is forecasted for 5.19 million tons, an increase of 1.8% compared to the previous year.

The production is expected to stay in lower level than the other years for regular repair implementation plan under the lack of new facility increase in major scale as it is attributable from the facility increase effect of the previous year.

The export is expected to make a steady growth with upward adjustment of economic growth in China, consumption and domestic demand-oriented growth, enhancement of the urbanization rate and various economy boosting policies implemented after the end of 2012.

The demand is expected to make low growth of less than 2% due to the influence of recovery made for consumption psychology after the middle part of the year and contraction of investment psychology of major industries.

(2) Synthetic Fiber Raw Materials

[Status in 2012]

In 2012, the domestic synthetic fiber supply recorded the production of 8.3 million tons, a decrease of 4.5% compared to the previous year, and the demand of 4.95 million tons, a decrease of 1.9% compared to the previous year.

The production has shown the decrease with the downward adjustment of the operation rate following the slow down in the

industry in spite of the production increase following the facility increase in EG and others.

The export has shown the decrease of 6.7% compared to the previous year with the slow down in the TPA export with the largest ratio from the synthetic material export with the influence of large-scale TPA with new facility operation in China, the largest exporting country.

The domestic demand has shown a slight increase due to the increase of product export following FTA with major countries and increase of production capability of textile companies with the facility increase of synthetic fiber and cotton spinning companies.

[Prospects for 2013]

In 2013, the synthetic fiber supply is expected for the production of 8.29 million tons, a decrease of 0.2% compared to the previous year, and the demand of 4.94 million tons, an decrease of 0.3% compared to the previous year.

The production has expanded its supplies following the new facility increase of some products but it is expected to decrease with the production adjustment and others following the delay of industrial recovery of TPA and the export is encountered with the limitation in steady increase of export or is expected to make a decrease.

The domestic demand is expected to maintain its increasing trend with the operation of facilities and operation rate increase with the declining of textile economy.

Status and prospects of supply and demand for synthetic fiber (Unit: 1,000 tons)

		2011		2012						2013	
		Total		1H		2H		Total		Total	
			G.R		G.R		G.R		G.R		G.R
TPA	Pro	6,661	1.9%	3,227	-0.1%	2,992	-12.8%	6,219	-6.6%	6,001	-3.5%
	EX	3,619	-0.9%	1,705	-2.1%	1,568	-16.5%	3,274	-9.5%	2,759	-15.7%
	IM	0	-92.1%	1	4725.5%	1	-	2	-	-	-
	Dem	3,041	5.4%	1,523	2.3%	1,425	-8.3%	2,947	-3.1%	2,892	-1.9%
DMT	Pro	75	-0.5%	39	2.0%	39	8.5%	78	5.1%	79	0.8%
	EX	23	1.7%	10	-17.7%	11	-9.1%	20	-13.3%	20	-0.8%
	IM	10	-21.2%	1	-94.9%	1	253.9%	2	-83.1%	2	-
	Dem	62	-5.5%	30	-18.5%	30	20.3%	60	-2.9%	61	1.7%
EG	Pro	1,156	0.5%	574	2.1%	606	2.0%	1,180	2.1%	1,180	0.0%
	EX	403	-8.6%	187	0.4%	254	17.3%	441	9.5%	440	-0.2%
	IM	458	2.8%	222	-3.3%	232	1.7%	454	-0.8%	450	-0.9%
	Dem	1,212	4.9%	610	0.5%	571	-5.6%	1,181	-2.6%	1,181	0.0%
AN	Pro	568	-3.6%	283	4.0%	284	10.2%	567	-0.2%	769	35.6%
	EX	185	3.6%	101	31.6%	100	-7.8%	201	8.4%	340	69.2%
	IM	87	2.7%	54	16.9%	59	45.6%	113	30.3%	84	-26.0%
	Dem	470	-5.3%	245	1.5%	253	33.4%	498	6.0%	532	6.8%
CPLM	Pro	276	0.3%	143	2.1%	121	-10.9%	264	-4.3%	267	1.0%
	EX	21	9.5%	23	175.8%	10	-22.0%	33	56.2%	29	-10.8%
	IM	49	4.4%	20	-23.3%	15	-35.6%	35	-29.2%	35	0.8%
	Dem	304	0.3%	140	-11.1%	126	-13.9%	267	-12.4%	273	2.4%
Total	Pro	8,697	1.3%	4,266	0.5%	4,042	-9.2%	8,309	-4.5%	8,296	-0.2%
	EX	4,251	-1.4%	2,025	0.1%	1,943	-12.7%	3,968	-6.7%	3,588	-9.6%
	IM	604	2.3%	298	-4.6%	308	5.4%	606	0.3%	571	-5.8%
	Dem	5,050	3.8%	2,548	0.7%	2,405	-4.5%	4,952	-1.9%	4,939	-0.3%

(Data) Korea Petrochemical Industry Association

(3) Synthetic rubber

[Status in 2012]

In 2012, the domestic synthetic rubber supply recorded the production for 1.01 million tons, an increase of 1.9% compared to the previous year, and the demand for 0.43 million tons, an increase of 0.2% compared to the previous year.

The production has moderated with the increase trend by completing the new facility increase continued by 2011, but it has made slight increase with the facility increase by the revamping of

certain facilities.

The export has shown the increase trend of 4.3% per year, but the increase speed has slowed down (a decrease of 6.9%p compared to the previous year) because of slow recovery of demand in China.

The domestic demand was shown to make mere 0.2% increase while the reduction in automobile production and slow production of tires. The tire production recorded 57,281,000, an increase of 2.0% compared to the previous year with the accumulation in July.

Status of supply and demand for synthetic rubber (Unit: 1,000 tons)

		2011		2012						2013(F)	
		Total		1H		2H		Total		Total	
			G.R		G.R		G.R		G.R		G.R
SBR	Pro	566	1.1%	271	-4.7%	292	3.9%	563	-0.4%	652	15.9%
	EX	340	-4.0%	156	-9.6%	187	10.3%	342	0.2%	352	2.8%
	IM	43	-14.3%	22	-9.3%	26	42.4%	48	13.3%	29	-39.0%
	Dem	268	5.2%	137	0.7%	132	1.2%	269	0.9%	270	0.5%
BR	Pro	422	32.7%	229	13.6%	214	-3.1%	443	4.9%	465	4.9%
	EX	273	38.6%	148	19.1%	152	1.1%	300	9.3%	324	8.1%
	IM	20	-9.1%	12	23.2%	11	7.2%	22	14.8%	23	4.9%
	Dem	169	18.2%	93	6.8%	73	-9.5%	166	-1.1%	164	-0.9%
Total	Pro	988	12.6%	500	2.9%	506	0.8%	1,006	1.9%	1,117	11.0%
	EX	613	11.2%	304	2.4%	338	6.0%	642	4.3%	676	5.3%
	IM	62	-12.8%	33	-0.2%	37	29.9%	70	13.8%	53	-25.1%
	Dem	437	12.4%	230	3.1%	204	-2.9%	434	0.2%	434	0.0%

(Data) Korea Petrochemical Industry Association

[Prospects for 2013]

In 2013, the synthetic rubber supply is expected for the production of 1.12 million tons, an increase of 11.0% compared to the previous year, and the demand of 0.43 million tons, the previous year same rate.

The production is expected to increase with the upward

adjustment of the operation rate by securing the margin following the stability of raw material price and production effect following the intensive new facility for 2 cases in the second half of 2012 with the export expected to decrease in general with the influence of the self-sufficiency in China and the demand expected to sustain its margin pressure of the domestic tire production industry due to the deepening of competition with low-priced tire from China.

(4) Basic petrochemical(Ethylene)

[Status in 2012]

In 2012, the domestic ethylene supply recorded for the production of 7.93 million tons, an increase of 6.3% compared to the previous year, and the demand of 7.03 million tons, an increase of 2.3% compared to the previous year.

The production is increased with the number of regular maintenance lower than previous years (2 cases) and the increase of facilities undertaken during the regular maintenance period (Lotte Chemical for 0.36 million tons in April and LG Chemical for 0.12 million tons in August).

The export has the increase with the tight demand and supply from supply troubles and intense implementation of regular maintenance in China, and others.

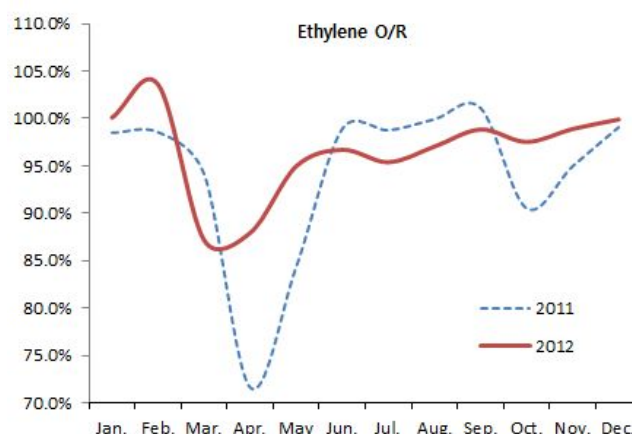
The demand has the outstanding increase trend with the steady production and operation rate for key industries.

[Prospects for 2013]

The domestic ethylene supply has the production for 8.08 million tons, an increase of 2.2% compared to the previous year with the new increase in facilities, and the demand for 7.35 million tons, an increase of 4.4% with the steady production increase of synthetic resin.

Prospects for demand and supply of ethylene (Unit: 1,000 tons) and changes in utilization rate('11vs'12)

	2012		2013(F)	
		G.R		G.R
Prod.	7,936	6.3%	8,087	2.2%
Exp	1,026	42.1%	850	▼17%
Imp	128	▼5.8%	115	▼10%
Dem	7,039	2.3%	7,352	4.4%



3. Major Current Issues and problems

- (1) Promotion of high level petrochemical industry and searching for method to strengthen competitiveness

Recently, Middle East and other late starting countries have large-sized new increase in facilities, high oil price, strengthening of green gas regulations and so forth, causing drastic weakening of the growth base. Accordingly, advanced major companies facilitate their technology strengthen to widen the gap while Middle East, China and other late starting countries have narrowed the gap with large-scale new increase in facilities.

In particular, climate change, environment regulation and others have a great burden in sustainable growth in excessive consumption in the petrochemical industry with significant energy and green house gas discharges. In particular, for securing fundamental competitiveness of industry and accomplishing the goal in energy and greenhouse gas reduction, it undertakes the green conversion and support continuously for petrochemical complex. Through this effort, it is expected to contribute not only for national energy savings but also in improvement of competitiveness in energy efficiency of petrochemical industry and others.

(2) Expansion of ration on the future growth project

The petrochemical industry of Korea has secured the economy of scale, discovered new growth engine for future and formulating the need to grow for responding to the structural supply excessive time and maintain the momentum for sustainable growth.

Therefore, the petrochemical industry of Korea has planned and promoted actively for new project advancement for future with sustained new increase in facilities as well as poly-silicone, monosilane, films and other solar energy material, secondary battery and others in the global petrochemical enterprises and new growth engine development in future.

(3) Response to the Climate Change Treaty

The international society is currently in discussion for the new greenhouse gas reduction system after 2012 when the Kyoto Protocol is expired and Korea is expected to have the burden of greenhouse gas reduction obligation from 2013, the period for secondary obligation.

Therefore, the Korean government has undertaken policies in preparation for its obligations in establishing domestic greenhouse gas reduction goal through enacting the Framework Act of Low Carbon Green Growth, and in November 2009, the domestic greenhouse gas reduction goal is planned to expand for BAU and set the greenhouse gas reduction goal for each detailed business and for each field by 2020.

Accordingly, in order for the petrochemical industry of Korea to sustain its present industry scale and sustain its advancement into a core industry in future, it may need to promote the greenhouse gas policy in consideration of the international competitiveness and the industry undertakes the responsible activities by organizing the task force for climate change around the association and considering the government policies with the response theories in reflection of the characteristics for the petrochemical industry.

II . For Committee Meeting

1. General Matters & Raw Materials Committee

General Matters & Raw Materials Committee

1. Olefins (Ethylene, Propylene, Butadiene)

ITEM : Ethylene

1) The 2012 Results

The domestic ethylene production was 7,937 Kton, an increase of approximately 6.1% compared to the previous year with the influence of the increase in facilities by Lotte Chemical. The entire ethylene demand also has increased slightly compared to the previous year as well and the export has been increased approximately 42.1% compared to the previous year due to the export increase in the China and Asia region.

2) The 2013 Forecast

In 2013, the ethylene demand has increased approximately 4.4 % to have 7,352 Kton. And, the ethylene production capacity is 8,280 Kton, similar compared to the previous year since there has been no increase in facilities.

ITEM : Propylene

1) The 2012 Results

The domestic propylene production was 6,118 Kton, an increase of 10.7% compared to the previous year. And, the overall demand volume was 5,140 Kton, an increase of approximately 11.4% compared

to the previous year. In addition, domestic export volume was 1,206 Kton, an increase of approximately 33.4% compared to the previous year due to the increase in facilities in 2012.

2) The 2013 Forecast

In 2013, with the operation of the new plant constructed in the previous year, it is expected to have 5,405 Kton, an increase of approximately 5.2% compared to the previous year for domestic demand, and in 2013, the propylene capacity is 6,701 Kton, an increase of approximately 6.2% due to the influence of new operation of GSCC RFCC.

ITEM : Butadiene

1) The 2012 Results

Korean butadiene capacity was expanded by 0.6% to 1,302 Kton in 2012, while the domestic production increased by 10.9% to 1,127 Kton, mainly small volume of crackers' turnaround loss.

Total domestic demand decreased by 9.7% compare to previous year to be 1,242 Kton, mainly due to weak rubber demand and mass inflow of Europe cargoes.

2) The 2013 Forecast

Amid no capacity expansion for butadiene in Korean, domestic production will decrease by 0.7% to 1,119 Kton in 2013 because there is some volume of crackers' turnaround loss and LPG usage will

increase.

In 2013, total domestic demand is expected to increase by 0.5% to 1,248 Kton.

(Unit : 1,000MT)

			2011	2012	2013 (Prospect)
Ethylene	Supply	Production	7,476	7,937	8,087
		Import	136	128	115
		Total	7,612	8,065	8,202
	Demand	Domestic	6,890	7,039	7,352
		Export	722	1,026	850
		Total	7,612	8,065	8,202
	Year-end Capacity			7,920	8,280
Propylene	Supply	Production	5,531	6,118	5,755
		Import	264	243	350
		Total	5,795	6,361	6,701
	Demand	Domestic	4,616	5,140	5,405
		Export	904	1,206	700
		Total	5,520	6,346	6,105
	Year-end Capacity			5,956	6,307
Butadiene	Supply	Production	1,016	1,127	1,119
		Import	359	115	129
		Total	1,375	1,242	1,248
	Demand	Domestic	1,226	1,190	1,176
		Export	149	52	72
		Total	1,375	1,242	1,248
	Year-end Capacity			1,294	1,302

2. Aromatics(Benzene, Toluene, Xylene)

ITEM : Benzene

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	4,482	4,762	4,881
	Import	182	163	165
	Total	4,664	4,925	5,046
Demand	Domestic	3,230	3,361	3,461
	Export	1,434	1,563	1,585
	Total	4,664	4,924	5,046

1) The 2012 Results

The production is expected to increase for 6.2% compared to the previous year with the increase in NCC and reformer and others. The domestic demand also is expected to increase for 4.0% with the influence of increase in facilities for 300 Kton of phenol of LG Chemical.

2) The 2013 Forecast

The production is expected to increase 2.5% compared to the previous year due to the facility increase of PX facilities and the domestic demand is also expected to increase for 3.0% with the influence of the increase in facilities of phenol of Kumho PNB Chemical (300 Ktons).

The export is forecasted to increase for 1.5% compared to the previous year with the tight supply of shale gas and other light quality fuel in North America and others.

ITEM : Toluene

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,895	2,357	2,474
	Import	166	126	130
	Total	2,061	2,483	2,604
Demand	Domestic	1,103	1,342	1,409
	Export	959	1,141	1,195
	Total	2,062	2,483	2,604

1) The 2012 Results

The production increased for 24.3% compared to the previous year from the increase in facilities of the reformer. The domestic demand also increased 21.6% compared to the previous year by placement of transfer processing for the PX production.

2) The 2013 Forecast

In 2013, the domestic demand is expected to increase 5.0% compared to the previous year by expanding the placement of the transfer processing for the PX production around major domestic petroleum companies after 2012.

ITEM : Mixed Xylene

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	2,792	3,504	3,679
	Import	1,134	1,119	1,152
	Total	3,926	4,623	4,831
Demand	Domestic	2,622	3,518	3,764
	Export	1,305	1,105	1,067
	Total	3,927	4,623	4,831

1) The 2012 Results

The production was increased for 25.5% compared to the previous year from the increase in facilities of the reformer for the PX production expansion. The domestic demand also had 34.1% increase compared to the previous year in accordance with the PX production expansion since 90% or more Xylene demand is placed.

2) The 2013 Forecast

There is no increase in facilities plan, the production is stabilized from the increase trend of 2012 that it is expected to increase 5.0% compared to the previous year.

However, the demand is likely to increase for 7% compared to the previous year by the expansion of placement for the PX part.

ITEM : Para Xylene

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	5,233	5,623	6,023
	Import	938	724	700
	Total	6,171	6,347	6,723
Demand	Domestic	4,346	4,171	4,050
	Export	1,825	2,176	2,673
	Total	6,171	6,347	6,723

1) The 2012 Results

The production was increased for 7.4% compared to the previous year with the accompanied facility increase for expanding and responding to the supply following the large-scale TPA new increase of facilities in Asia, especially china. The export was recorded to increase for 19.2% compared to the previous year thanks to the export to China. However, the domestic demand is decreased for 4.0% compared to the previous year due to the influence of export decrease to China by the TPA companies.

2) The 2013 Forecast

The production is expected to increase for 7.1% compared to the previous year with the influence of increase in facilities for 0.8 million tons of Hyundai Cosmo and the export is likely to increase for 22.8% compared to the previous year by the export expansion around China.

ITEM : Raw Material (Naphtha)

(Unit : 1,000MT)

		2011	2012(E)		2013(P)	
				G.R(%)		G.R(%)
Supply	Supply	21,678	23,427	8.0%	24,321	3.8%
	Import	20,945	20,994	0.2%	21,203	1.0%
	Total	42,623	44,421	4.2%	45,525	2.4%
Demand*	Crackers	21,284	22,153	4.0%	22,444	1.3%
	Reformers	17,194	18,053	4.9%	18,865	4.4%
	Others	213	215	1.0%	216	0.5%

1) The 2012 Results

In 2012, the domestic naphtha market showed the increase of 4.0% compared to the previous year with the increase in facilities together with the regular maintenance of the NCC companies, including, LG Chemical, Lotte Chemical and others, and in particular, with the focus on PX and benzene production, the demand for naphtha for BTX recorded the growth trend of close to 5% compared to the previous year.

2) The 2013 Forecast

The number of regular maintenance cases has been reduced compared to the previous years, but with the completion of the ethylene facility increase plan that had been implemented each year, the naphtha demand injected for NCC is expected to increase 1.3% compared to the previous year. On the other hand, the demand for BTX is expected to have the growth trend of the previous year level (5%) with the background for new PX facility increase and benzene production expansion.

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2. Polyolefins Committee

Polyolefins Committee

ITEM : LDPE (including L-LDPE, EVA)

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	2,010	2,068	2,107
	Import	93	103	122
	Total	2,103	2,171	2,229
Demand	Domestic	1,054	1,117	1,135
	Export	1,049	1,054	1,094
	Total	2,103	2,171	2,229
Year-end Capacity		1,923	2,034	2,034

1) The 2012 Results

Total LDPE production including LLDPE was 2,068 thousand ton which was increased by 2.9% compared with 2011. Domestic demand of LDPE, EVA, LLDPE was slightly increased especially in the application of EVA foam and general purpose film.

But export quantity was similar to that of 2011. The import quantity for LDPE has been gradually increased. Hanwha chemical in June 2012 expanded EVA plant by 40KT.

2) The 2013 Forecast

Production of 2013 is expected to be 2,107Kton which is increased by 39Kton. The main reason is the expansion in LG Chemical and Hanwha chemical. LG Chemical is planning to start the operation of new EVA plant from 2013.4Q

Domestic demand will be reached to 1,135Kton which is increased by 1.6%. Export quantity will be increased by 3.8% to 1,094 Kton

ITEM : HDPE

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,986	2,123	2,199
	Import	36	32	67
	Total	2,022	2,155	2,266
Demand	Domestic	944	918	932
	Export	1,078	1,236	1,304
	Total	2,022	2,154	2,236
Year-end Capacity		2,325	2,575	2,575

1) The 2012 Results

In 2012, the domestic HDPE supply has the supply of 2,123 Kton, an increase of 6.9% compared to the previous year, and the demand of 2,154 Kton, an increase of 6.5% compared to the previous year.

The production was increased for 166 Kton with the reduction of domestic regular maintenance and new increase in facilities (increase in facilities of Lotte Chemical for 250 Kton in April), but the domestic demand has reduced 26 Kton compared to the previous year with the influence of depression in demand economy following the continuing global economy depression.

On the other hand, the export has shown lackadaisical performance in the first half due to the slow demand with retrenchment

policy of China, the largest market, but it has increased 158 Kton compared to the previous year as the annual basis with the economy boosting policy of major countries in the second half.

2) The 2013 Forecast

In 2013, the domestic HDPE supply is 2,266 Kton, an increase of 3.75% compared to the previous year, and the demand is expected to be 2,236 Ktons, an increase of 3.80% compared to the previous year.

The production is expected to increase 47 Kton compared to the previous year with smaller scale of domestic regular maintenance implementation plan.

On the other hand, the import is expected to continue the domestic inflow increase of general products from Middle East and India.

The export is expected to increase for 68 Kton compared to the previous year with the increase of export following the recovery of China's economy and increase of export to Europe and the US from the FTA effect.

ITEM : P P

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	3,730	3,874	3,885
	Import	27	23	30
	Total	3,757	3,897	3,915
Demand	Domestic	1,534	1,521	1,640
	Export	2,223	2,376	2,230
	Total	3,757	3,897	3,870
Year-end Capacity		3,988	4,240	4,240

1) The 2012 Results

In 2012, the PP price has generally shown weak and steady trend (\$1,302~\$1,470) due to the new and increased volume in Middle East and retrenchment of demand from the economic depression, and while the oil price is drastically increased with the Iran crisis in the Q1, the demand has declined not to transfer the portion on the product project.

In addition, with the drastic increase of export to China for the products from Iran that has no way to export to Europe, China has significant supply over the PP demand that the China price is maintained of weak to steady trend. In relative terms, South America has its export volume to the US to maintain high price continuously that the PP products of Korea and other Asian countries conserved loss with the export.

The production volume has increased for approximately 137 Kton over 2011 compared to the increase in facilities in June and most of increased volume has been sold in export.

2) The 2013 Forecast

In the event of 2013, The China's GDP growth rate is expected to be 8.4% that is higher than 2012 and due to the domestic demand boosting policy after the change of regime, the domestic demand including automobile will recover with the gradual increase of price as well.

In addition, if the increase in new increase in facilities is wrapped up with the Iran crisis to be resolved, China is expected to have significant demand increase portion than the supply increase portion, and due to the North America's shell gas development to reduce the PP production in the US that the market price including China will be increased compared to 2012.

2013 is expected to show similar operation rate with 2012 without additional volume.

3. Styrenics Committee

Styrenics Committee

ITEM : P S

(Unit : 1,000 MT)

		2011	2012	2013 (Prospect)
Supply	Production	669	644	657
	Import	17	19	21
	Total	686	663	678
Demand	Domestic	196	202	203
	Export	490	461	475
	Total	686	663	678
Year-end Capacity		834	774	774

* EPS excluded

1) The 2011 Results

The PS demand of Korea was slightly increased compared to the previous year for the domestic demand, but it was reduced for 4% compared to the previous year with the reduction of the export.

The domestic demand was reduced from the continuous transfer of the overseas plants and others for large home appliance companies in the electric and electronic fields while the packing part has the slight increase in demand from the increase of demand by the change in life style.

The operation rate of 2012 has declined approximately 3% compared to the previous year with its 81% compared to the production capacity.

2) The 2013 Forecast

In 2013, the PS demand of Korea is expected not to have significant change compared to 2012 and the export is expected to make a slight increase.

Henceforth, the balance in demand and supply is expected to have no significant change compared to the previous year and the export is expected to expand into areas other than existing export areas.

ITEM : A B S

(Unit : 1,000 MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,394	1,446	1,460
	Import	6	6	10
	Total	1,400	1,452	1,470
Demand	Domestic	265	325	313
	Export	1,135	1,126	1,157
	Total	1,400	1,451	1,470
Year-end Capacity		1,304	1,244	1,646

1) The 2012 Results

Affected by financial crisis in Europe and extreme sluggish demand due to the global recession, profitability of makers is low over the previous year.

And affected by China weak domestic market, export volume to China and Hong Kong reduced. However, due to the economic recovery and KOREA-EU FTA, the total export volume have increased slightly.

2) The 2013 Forecast

2013 overall world economy is expected to slow growth due to slowdown in the growth of real demand. The slow growth of the emerging markets and increased production of unconventional energy, such as Shale gas reduced oil consumption and the price of crude oil is expected to decline.

Accordingly, ABS market is expected to continue to weaken, because of this, operating rate in South Korea will be decreased.

ITEM : S M

(Unit : 1,000 MT)

		2011	2012	2013 (Prospect)
Supply	Production	2,709	2,758	2,831
	Import	795	780	780
	Total	3,504	3,538	3,611
Demand	Domestic	2,321	2,300	2,311
	Export	1,228	1,242	1,300
	Total	3,549	3,542	3,661
Year-end Capacity		2,835	2,870	2,870

1) The 2012 Results

In 2012, the SM demand in Korea has shown weak to steady trend together with the concern of slow export following the demand slow down in 2Q downstream and financial crisis of Eurozone, it has 2,300 Kton, a slight decrease of approximately 0.9% compared to its 2,321 Kton in 2011.

The capacity during the same period has increased slightly to

make the growth of approximately 1.8% and 1.1% compared to the previous year for production volume and export volume, respectively, in 2012.

2) The 2013 Forecast

In 2013, the SM capacity of Korea is expected to maintain the previous year level for 2,870 Kton, but the operation rate is expected to grow to 99% in 2013 from 96% in 2012 that the production volume is estimated to 2,831 Kton, an increase of approximately 2.6% compared to the previous year.

The SM demand is expected to be of approximately 2,311 Kton to make an increase of approximately 0.5% compared to the previous year.

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4. PVC Committee

PVC Committee

ITEM : P V C

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,405	1,405	1,375
	Import	93	113	80
	Total	1,498	1,518	1,455
Demand	Domestic	841	792	689
	Export	657	726	766
	Total	1,498	1,518	1,455
Year-end Capacity		1,420	1,420	1,420

1) The 2012 Results

Due to gloomy global recession and domestic market downturn(GDP Growth rate 2%) PVC market was downturn.

2) The 2013 Forecast

Under National GDP growth rate 3% around 2013 with L-shaped, slow growth will be continued.

Although being a stagnation of the domestic market, the global economy might be revitalized by the new launched government such as of China, Korea, Japan.

ITEM : V C M

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,520	1,486	1,495
	Import	0	0	0
	Total	1,520	1,486	1,495
Demand	Domestic	1,404	1,400	1,375
	Export	11	86	120
	Total	1,415	1,486	1,495
Year-end Capacity		1,600	1,600	1,622

1) The 2012 Results

VCM production rate of LG Chem and Hanwha was 100% in Korea.

2) The 2013 Forecast

LG Chem have revamped VCM capacity 30,000 in late April.

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5. Synthetic Rubber Committee

Synthetic Rubber Committee

(Unit : MT)

		2011	2012	2013 (Prospect)	
SBR	Capa. (Year-end)	626	626	866	
	Supply	Production	566	563	652
		Import	43	48	29
		Total	609	611	681
	Demand	Domestic	268	269	270
		Export	340	342	352
		Total	608	611	622
BR	Capa. (Year-end)	522	554	554	
	Supply	Production	422	444	465
		Import	20	22	23
		Total	442	466	488
	Demand	Domestic	169	166	165
		Export	273	300	323
		Total	442	466	488

* SBR(E-SBR+S-SBR) / BR (HBR + LBR)

1) The 2012 Results

Due to European economic crisis and sluggish recovery in demand of China, World car sales grew 1.1% and tire sales grew 3% compared to last year.

Over-supply was intensified due to global expansion between 2011 and 2012 (SBR 800 Ktos and BR 1,220 Kton were expanded in worldwide.)

In Korea, the total production of SBR and BR was slightly

increased by 1.9% compared to last year but the demand was shrunked by 4% due to global economic downturn.

The speed of rise in export slowed down due to China's tight fiscal policy and supply competition.(6.9%p was dropped compared to last year)

2) The 2013 Forecast

In 2013, Global demand of synthetic rubber is expected to be 15,840 Kton which is increased by 3.6% compared to 2012. The demand of synthetic rubber in Korea is expected to be 450KT which is increased by 2.8%.

As well as 2012, Global synthetic rubber makers will expand their capacities in 2013. Therefore, the competition will be intensified more. (SBR 460KT, BR 390KT) Especially, the large-scale expansion of Chinese synthetic rubber makers and the appearance of Indian local makers will increase self-sufficiency of synthetic rubber for those countries.

The demand of SSBR in 2013 was expected to grow rapidly due to EU labelling regulation which was started from the end of 2012. However, as European economy has not been recovered, the demand of SSBR won't be increased sharply as expected.

Regardless of the current situation, the demand of SSBR and NdBR will increase in future and the makers will also focus on the expansion of SSBR and NdBR.

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6. Synthetic Fiber Raw Materials Committee

Synthetic Fiber Raw Materials Committee

ITEM : A N

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	568	567	769
	Import	87	113	84
	Total	655	680	853
Demand	Domestic	487	498	532
	Export	185	201	340
	Total	672	699	872
Year-end Capacity		565	565	810

1) The 2012 Results

Comparing with 2011, AN total demand in Korea was increased by 2% and reached to 498 Kton. Derivative-wide, AN demand from acrylic fibre was 56 Kton, recording 18% of decrease from the last year which was resulting from recession and poor demand.

On the other hand, AN demand from ABS resin sector was 348 Kton, recording 4% of increase from 2011 and same operation as 2011 due to export market diversification to resolve recession.

In the mean time, AN supply also has reached to 567 Kton, similar to 2011, despite the AN production cut on 2nd half reflecting decreased ABS operation ratio and domestic AN makers's T/A.

2) The 2013 Forecast

2013 Demand from AF will be expected to reach at 55 Kton which is come back to its original state of 2011, mainly thanks to

start-up of 1.8 Kton Carbon Fibre in the 1st quarter of 2013 and AF demand recovery.

Turning to ABS, ABS demand will be forecasted to be expanded by economic recovery and domestic ABS expansion of 130 Kton. As a result, AN Demand from ABS Sector will be increased by 3% and reached to 366 Kton.

Accordingly, total domestic demand will be reached to 532 Kton, 8% increase from the last year. Domestic production will be increased by 36% and reached at 769 Kton, reflecting new 245 Kton line of Tongsoh.

As a result, import will be expected to be decreased by 26% and touched at 84 Kton.

Accordingly, total supply would be expected to record 853 Kton in 2013.

ITEM : Caprolactam

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	276	265	267
	Import	49	35	35
	Total	325	300	302
Demand	Domestic	304	267	273
	Export	21	33	29
	Total	325	300	302
Year-end Capacity		270	270	270

1) The 2012 Results

The recent domestic Caprolactam market has continued its low growth trend in spite of the growth in the infra market. Accordingly, the export has increased by converting into export for the domestic surplus portion while the import recorded the decrease trend.

2) The 2013 Forecast

It is likely to record the production recovery trend by deviating from the low operation of the previous year, but the domestic demand is expected to maintain its low growth trend still. With the progress of self-sufficiency of China and others, the export is converted to the decrease trend compared to the previous year.

ITEM : E G

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	1,156	1,180	1,180
	Import	458	454	450
	Total	1,614	1,634	1,630
Demand	Domestic	1,212	1,180	1,180
	Export	403	441	440
	Total	1,615	1,621	1,620
Year-end Capacity		1,352	1,360	1,360

1) The 2012 Results

MEG demand in Korea was about 1,180 Kton in 2012, slightly decreased by 4% compared to previous year's 1,212 Kton. The reason is that some polyester plants have lowered their operation rate due to

poor margin. Chinese polyester polymer capacity expansion in 2012 was estimated around 3,800 Kton. This caused oversupply of polyester and resulted in bad margin. The demand decrease of MEG has resulted in increase in export volume in 2012.

The existing 3 MEG suppliers produced 1,180 Kton in total, increased by 2%. Domestic EO derivatives' demand was not good enough so MEG production was more than expectation.

The total MEG import figures were slightly decreased to 454 Kton. Domestic demand decline resulted in export volume increase. The total MEG export has increased to 441 Kton, which showed 9% increase compared to previous year.

2) The 2013 Forecast

On the demand side, Korean polyester makers are still facing severe competition due to increased supply by continuous polyester capacity expansions in China. The capacity expansion in China is estimated 6,200 Kton in 2013.

Therefore, polyester over supply will continue to be an issue in 2013. Due to capacity expansions, feedstock MEG demand in China will be increased. However, as there is no polyester expansion in Korea, MEG demand is expected to be stable.

MEG supply is expected to be tight throughout 2013. No additional capacity expansion of MEG is planned in Korea in 2013. As a result, the supply is expected to be stable in 2013. In China, an MTO (Methanol to Olefin) plant in Ningbo (500 Kton) started test run.

Few MTO plants are expected to start up in 2013 and their

successful launch of commercial MEG will be an important factor in Asia MEG supply.

As per price outlook, MEG price is expected to trend up as a result of tight supply in China. Polyester capacity expansions will support MEG demand. However, in case of the concerns of economic outlook continues, polyester operation rate could be adjusted.

This could be a bearish factor of the price outlook.

ITEM : T P A

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	6,661	6,219	6,001
	Import	0	2	0
	Total	6,661	6,221	6,001
Demand	Domestic	3,041	2,947	2,892
	Export	3,619	3,274	2,759
	Total	6,660	6,221	5,651
Year-end Capacity		6,690	6,790	6,790

1) The 2012 Results

The production and export were lackadaisical with the influence of new facility operation of large-scale TPA of China, the largest export country, it has shown the decrease of 6.6% and 9.5%, respectively, compared to the same term of the previous year.

2) The 2013 Forecast

Due to the influence of large-scale increase in facilities of China,

the production is expected to 3.5% compared to the previous year and the export is likely to 5.7% compared to the previous year by expanding its decrease range from the previous year.

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7. Chemicals Committee

Chemicals Committee

ITEM : Phenol

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	654	645	916
	Import	98	97	40
	Total	752	742	956
Demand	Domestic	595	697	774
	Export	168	100	125
	Total	763	797	899
Year-end Capacity		615	630	905

1) The 2012 Results

Price recovered in Q1 2012 but declined since end April due to weak demand and new added capacity. There was a small expectation to recover demand in China but domestic market in China remained weak.

After Phenol supply in Asia increased by capacity expansion in China (King boad, Shandong luhuayi) Price has been fallen although feedstock remain high. It weakened profitability among players.

2) The 2013 Forecast

Surplus supply situation is forecasted throughout the year 2013.

Feedstock costs are expected(especially benzene) In the domestic market, Two players' market competition will influence to the condition of the domestic market.

Demand in the the major China market will not pick up significantly, due to Surplus supply and Uncertain economic environment

ITEM : 2-Ethyl Hexanol

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	400	400	400
	Import	18	43	54
	Total	418	443	454
Demand	Domestic	333	366	370
	Export	85	77	84
	Total	418	443	454
Year-end Capacity		400	400	400

※ Production is Shipment, Demand/Domestic is included self consumption

1) The 2012 Results

Due to increased volume of self consumption, domestic demand increased by 9.9% compared to the previous year, but export decreased by 9.4% from the previous year because of the same reason.

On the other hand, import increased by 25.6% compared to the previous year due to sales policy changes of some local producer.

2) The 2013 Forecast

Plasticizers demand in 2013 is still expected to be bearish, but domestic demand of 2EH is expected, a slight increase, 370 Kton which is higher than 2012 due to domestic demand for self consumption(2EHA).

And due to sales policy changes of some local producer, both export and import volume of 2EH are expected, a slight increase, 84 Kton and 54 Kton which is higher than 2012.

ITEM : Phthalic Anhydride

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	388	382	383
	Import	1	1	1
	Total	389	383	384
Demand	Domestic	189	185	187
	Export	200	198	197
	Total	389	383	384
Year-end Capacity		340	340	340

1) The 2012 Results

Due to market booming of PA in the 1st half, total sales volume and profit has been gone up.

However, the recession which had taken a place in the 2nd half led the sales and operating rate down.

Comparing Year 2011, demand, production rate, and export volume decreased to 1.5%, 1.5% and 1.0% respectively.

2) The 2013 Forecast

Ever though the forecasts of 1st half seems to be very tough period which led by global economic recession, 2nd half might be recovered to Year 2012 level when the market gets stablized back to normal.

ITEM : Acetic Acid

(Unit : 1,000MT)

		2011	2012	2013 (Prospect)
Supply	Production	486	456	452
	Import	84	42	48
	Total	540	498	500
Demand	Domestic	510	414	437
	Export	30	84	63
	Total	540	498	500
Year-end Capacity		486	544	511

1) The 2012 Results

Domestic demand of acetic acid shrank with almost 5% compare to last year.

Demand from main derivatives had decreased i.e. PTA, VAM, EA. Among all, demand from PTA has hugely decreased by 8%

Supply was 498 Kton which is decreased by 42 Kton in line with demand plunge of derivatives.

2) The 2013 Forecast

Domestic demand from PTA, VAM & EA/BA will be decreased.

PTA Business is in tough situation currently and it will last throughout the year.

Major producers like Wujing, Sopo, SSBP expect to have shutdown in 2013. Even though producers which do not have turnaround schedule, they might cut their production due to low demand and poor margin.