

Coal Trends

Trends in coal supply, demand and prices as seen from statistics

Koji Morita, Board Member, Director, Charge of Electric Power & Coal Unit

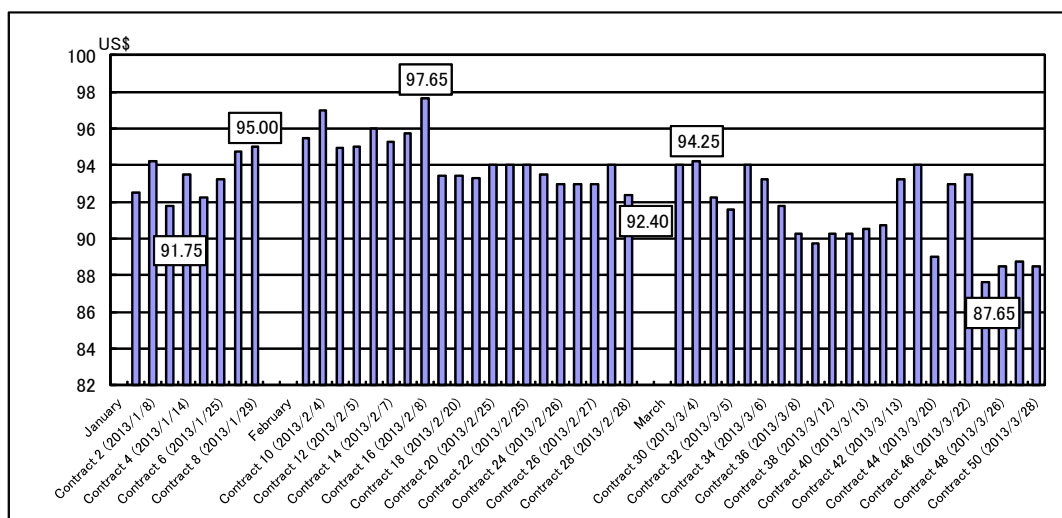
In this issue, market conditions in Australia and South Africa and trends in landed prices in Japan are reported, and major coal-related statistics in 2012 are discussed.

1. Spot prices for Australian and South African coal and landed prices in Japan
Continuously falling landed prices of coking coal (in US\$ terms) and stronger influence of the weaker yen

(1) Actual trading price trends for Australian and South African thermal coal (Jan-Feb 2013)

Figure 1 shows contacted actual spot trading prices in January to March in a time-series for Newcastle (Australia).

Figure 1. Contract Prices FOB Newcastle, Australia (Jan-March 2013, actual)



Source: Prepared using globalCOAL materials

For Newcastle, 50 actual spot trades were recorded in the three months from January to the end of March 2013 (until March 28).

The number of trades in January was small, at eight, and the range of price movements was also only US\$3.25 per metric ton, with the low of US\$91.75 per metric ton and the high of US\$95.00 per metric ton. An upward trend was observed, albeit moderately.

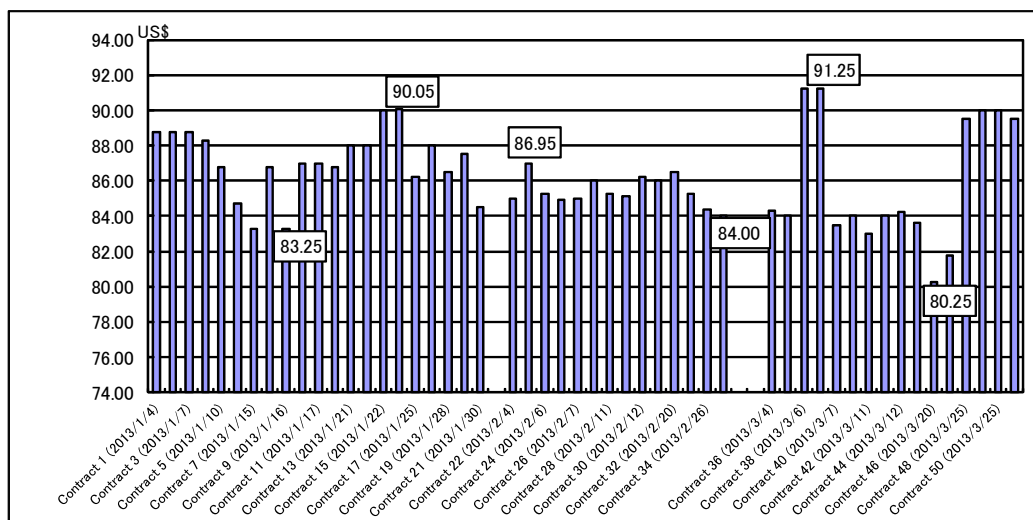
The number of trades increased to 20 in February. The upward trend that had continued since January turned down from the peak of US\$97.65 per metric ton on February 8, and prices stayed on the decline in the range of US\$94-92 per metric ton in late-February. US\$92.40 per metric ton on February 28 was the low in February.

In March, though 22 trades were recorded (until March 28), trading prices fell to US\$87.65 per metric ton on March 22 from the high of US\$94.25 per metric ton on March 4. Prices of the subsequent three trades also rose to only a little more than US\$88 per metric ton, but not yet recovering to US\$90 per metric ton.

Meanwhile, though there were 51 contracts for FOB RB in January-March 2013 (until March 27), the number of trades whose price exceeded US\$90 per metric ton was only two in January and four in March, with all the trades in February contracted at a price below US\$90 per metric ton.

Though two trades that were contracted on March 6 reached an all-time high for March at US\$91.25 per metric ton, subsequent price movements were volatile in March, with the price lowering to US\$80.25 per metric ton on March 20. However, prices of four trades contracted in late-March returned to the level of US\$90 per metric ton. Comparing FOB RB of these four trades with FOB NEWC of trades contracted in the same period, the price of FOB RB was slightly higher. This was a trend observed for the first time in this year.

Figure 2. Contract Prices FOB Richards Bay, South Africa (Jan-Feb 2013, actual)

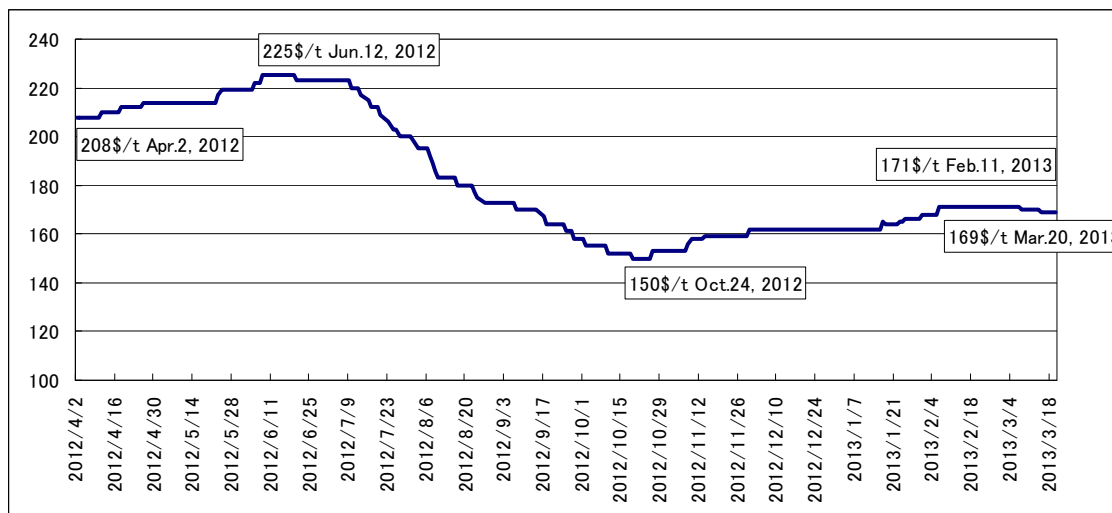


Source: Prepared using globalCOAL materials

(2) Coking coal spot index

Figure 3 shows the index for Coking Coal Queensland (CCQ); in other words, the heavy coking coal price index, ex East Coast Australia (Queensland), on a daily basis.

Figure 3. Energy Publishing's CCQ (Coking Coal Queensland) Index



Source: Prepared using Energy Publishing data

Price movements were small. After hitting a bottom of US\$150 per metric ton from October 19-25, 2012, prices turned up and recovered to US\$171 per metric ton from February 6 to March 7, 2013 and slightly declined to US\$170 per metric ton from March 8 and then to US\$169 per metric ton on March 15 (Energy Publishing website).

(3) Import price to Japan - Continuously falling coking coal prices (in US\$ terms) and stronger influence of the weaker yen

Table 1 shows import price for all coal imports in the five months from October 2012 to February 2013.

As the table shows, the import price for all imports in US\$ terms fell from US\$147.41 per metric ton in October 2012 to US\$127.56 per metric ton in February 2013.

In yen terms, however, it rose from a bottom of JPY11,007 per metric ton in December 2012 to JPY11,819 per metric ton in January 2013 and JPY11,811 per metric ton in February.

During this time, the exchange rate of the yen against the US dollar weakened from JPY78.31 in October 2012 to JPY91.76 in February 2013. The weaker yen began to strengthen its impact on imported coal prices.

Looking at import prices in US dollar terms below, though prices of coking coal slightly rebounded from December 2012 to January 2013, they continued falling roughly in a linear fashion after October 2012. Compared to October 2012, prices in February 2013 declined as much as 22%.

These price movements differ from an upward shift after October shown in Figure 3 above.

Meanwhile, prices of thermal coal also continued falling during this period, but only by 5%.

Table 1. Japan Landed Imported Coal Prices (October 2012 - February 2013)

	12-Oct		12-Nov		12-Dec		13-Jan		13-Feb	
	JPY/ton	US\$/ton	JPY/ton	US\$/ton	JPY/ton	US\$/ton	JPY/ton	US\$/ton	JPY/ton	US\$/ton
Total imports	11,543	147.41	11,101	138.87	11,007	133.16	11,819	134.93	11,811	127.56
By coal type										
Coking coal	14,083	179.85	13,471	168.52	12,548	151.80	13,589	155.14	13,580	140.98
Thermal coal	9,819	125.39	9,690	121.22	9,907	119.85	10,477	119.61	10,471	118.89
Anthracite	13,538	172.89	13,172	164.78	12,756	164.78	13,699	156.39	13,656	155.06
By source										
Australia	11,757	150.13	11,010	137.75	11,010	137.51	11,904	135.89	12,170	132.63
Indonesia	8,980	114.67	8,979	112.32	8,966	108.47	9,841	112.34	10,190	111.05
Canada	14,981	191.30	14,737	183.37	13,844	167.48	15,317	174.86	14,595	159.06
China	11,760	150.17	14,164	177.18	13,544	163.85	16,861	192.48	15,352	167.31
USA	15,197	194.06	16,493	206.31	13,963	168.92	16,595	189.45	13,710	149.41
Russia	10,308	131.63	10,167	127.18	10,853	131.30	10,776	123.04	11,683	127.32
South Africa	-	-	-	-	9,356	113.18	10,567	120.63	9,834	107.17
New Zealand	16,977	216.79	-	-	-	-	-	-	-	-
Vietnam	16,119	205.62	11,587	144.94	13,004	157.32	12,401	141.57	13,656	148.82
Mongolia	-	-	-	-	18,656	225.70	-	-	20,995	228.80
Mozambique	17,114	218.54	-	-	-	-	-	-	15,358	167.37
Colombia	10,616	135.56	9,391	117.47	-	-	9,890	112.90	-	-
Coking coal by source										
Australia	14,834	189.43	13,317	166.59	13,509	163.43	14,454	165.16	14,406	157.00
Indonesia	9,508	121.42	9,443	118.13	9,446	114.27	10,133	115.68	10,404	113.39
Canada	17,450	222.84	16,255	204.56	16,272	196.86	17,210	196.47	16,999	185.27
China	10,823	138.21	-	-	13,461	162.85	-	-	15,611	170.14
USA	16,668	212.85	18,913	235.79	15,832	191.53	18,033	205.87	15,969	174.03
Russia	13,938	177.99	12,953	162.04	14,257	172.48	12,113	138.29	13,143	143.23
New Zealand	16,978	216.81	-	-	-	-	-	-	-	-
Mongolia	-	-	-	-	18,657	225.71	-	-	20,995	228.81
Mozambique	17,115	218.56	-	-	-	-	-	-	15,358	167.38
Thermal coal by source										
Australia	10,186	130.08	10,110	126.44	10,351	125.23	10,650	121.58	11,224	122.32
Indonesia	8,434	107.70	8,642	108.11	8,418	101.84	9,314	106.33	9,956	108.51
Canada	9,141	116.73	8,018	100.30	9,236	111.74	10,759	122.82	11,248	122.58
China	11,111	141.89	11,027	137.94	10,521	127.29	13,696	156.36	13,019	141.89
USA	8,187	104.54	6,876	86.02	9,856	119.23	10,808	123.38	10,126	110.35
Russia	9,033	115.33	9,131	114.23	9,896	119.72	10,089	115.18	10,558	115.06
South Africa	-	-	-	-	9,357	113.20	10,568	120.64	9,834	107.18
Colombia	10,616	135.57	9,391	117.48	-	-	9,891	112.91	-	-
	US1\$=JPY78.31	US1\$=JPY79.94	US1\$=JPY82.66	US1\$=JPY87.60	US1\$=JPY91.76					

Source: Prepared using Trade Statistics of Japan Monthly Reports

The trend that a fall in coking coal prices is large while that in thermal coal prices is small is clearly reflected in import prices by source.

The rate of decrease is large for countries with a high export ratio of coking coal (23.4% for Mozambique, 22.8% for the US, 16.9% for Canada and 11.7% for Australia [February 2013/October 2012]), while the rate of decrease is small for countries with a high export ratio of thermal coal (3.2% for Indonesia and 5.3% for South Africa).

Viewed by source, it is distinctive that the landed price of coking coal fell by around 20% for many countries, while it rose as much as 23% for China (February 2013/October 2012). It remained almost unchanged for Mongolia, and the fall was only 6.6% for Indonesia.

It is also a recent characteristic that the landing of coking coal from China tends to be intermittent.

Looking at thermal coal by source (February 2013/October 2012), an overall trend is not recognized, showing mixed movements with the price falling about 5% for Australia and South Africa (February 2013/December 2012), to the contrary rising for Canada, and remaining almost unchanged for other sources.

2. Looking back on 2012

Major statistics by country and brief comments are as follows.

(1) Japan

Table 2. Coal Imports of Japan According to Coal Type

(tons)

	Thermal coal	Coking coal	Coking coal	Total
2000	66,357,810	75,241,457	3,678,711	145,277,978
2001	72,460,714	78,650,283	4,673,440	155,784,437
2002	74,691,224	78,951,878	4,891,272	158,534,374
2003	82,428,808	79,603,899	4,985,706	167,018,413
2004	94,460,451	79,672,649	5,850,807	179,983,907
2005	96,171,248	78,746,925	5,889,500	180,807,673
2006	91,568,184	79,683,864	5,956,714	177,208,762
2007	100,926,654	80,030,983	5,528,050	186,485,687
2008	105,054,009	80,732,138	5,885,019	191,671,166
2009	91,795,921	65,777,675	4,237,201	161,810,797
2010	101,613,938	76,682,259	6,263,342	184,559,539
2011	101,184,302	68,659,290	5,395,390	175,238,982
2012	107,716,489	71,470,926	5,963,466	185,150,881

Source: Prepared using Trade Statistics of Japan Monthly Reports

- Total imports in 2012 were the third largest after those in 2007 and 2008, the years before the worldwide recession.
- Import of thermal coal in 2012 was the largest ever.
- Import of coking coal also showed a recovery trend in 2012 but was far from the level before the worldwide recession.

Table 3. Japan Landed Imported Coal Prices and Total Imports (2010-2012)

	2010			2011			2012		
	Price		Imports 1,000 tons	Price		Imports 1,000 tons	Price		Imports 1,000 tons
	JPY/ton	US\$/ton		JPY/ton	US\$/ton		JPY/ton	US\$/ton	
Total imports	12,117	129.83	184,560	14,382	175.48	175,239	12,084	157.08	185,151
By coal type									
Coking coal	13,932	158.16	76,682	18,238	228.07	68,659	15,183	190.81	71,471
Thermal coal	9,405	106.76	101,614	10,980	137.31	101,184	10,599	133.20	107,716
Anthracite	13,842	157.14	6,263	17,769	222.19	5,395	14,661	184.25	5,963
By source									
Australia	11,676	132.54	117,496	14,389	179.93	104,832	12,647	158.94	114,764
Indonesia	8,689	98.63	33,845	10,108	126.39	35,389	9,702	121.93	36,148
Canada	15,426	175.12	10,542	19,367	242.18	9,644	16,998	213.63	9,871
China	11,844	134.45	6,301	15,644	195.62	5,035	14,779	185.74	3,451
USA	17,132	194.48	3,065	20,439	255.58	6,273	18,824	236.57	6,277
Russia	11,077	125.75	10,689	13,431	167.95	11,375	11,435	143.71	12,472
South Africa	9,257	105.06	299	11,793	147.47	616	10,004	125.73	424
New Zealand	16,374	185.87	474	20,502	256.37	418	19,314	242.73	189
Vietnam	14,000	158.93	1,734	18,931	236.73	1,313	15,154	190.45	1,109
Mongolia	19,976	226.79	60	272,500	3,407.53	0	20,332	255.52	50
Mozambique	-	-	-	-	-	-	19,910	250.22	90
Colombia	9,740	110.57	60	14,448	180.67	266	9,641	121.17	145
Coking coal by source									
Australia	14,872	168.83	44,017	19,780	247.34	36,739	15,989	200.94	37,577
Indonesia	9,218	104.65	17,972	10,700	133.80	14,666	10,095	126.87	17,872
Canada	16,845	191.22	8,555	21,955	274.54	7,347	19,119	240.28	7,438
China	13,733	153.02	603	20,109	251.46	1,098	16,293	204.77	607
USA	18,416	209.06	2,702	21,456	268.30	5,725	20,169	253.47	5,461
Russia	16,090	182.65	2,296	19,932	249.25	2,540	15,625	196.36	2,026
New Zealand	16,374	185.87	474	20,502	256.37	418	19,314	242.73	189
Mongolia	19,978	226.79	60	-	-	-	20,332	255.52	50
Mozambique	-	-	-	-	-	-	19,910	250.22	90
Thermal coal by source									
Australia	9,696	110.07	72,075	11,360	142.05	66,763	10,966	137.81	75,955
Indonesia	8,086	91.80	15,839	9,689	121.15	20,726	9,317	117.09	18,275
Canada	9,318	105.78	1,986	11,101	138.81	2,299	10,513	132.12	2,432
China	9,839	111.69	3,929	11,753	146.97	2,530	12,078	151.79	1,588
USA	7,584	86.09	364	9,513	118.96	533	9,585	120.46	777
Russia	9,264	105.16	7,062	10,808	136.28	7,513	9,927	124.76	8,119
South Africa	9,257	105.08	299	11,793	147.47	616	10,004	125.73	424
Colombia	9,740	110.57	60	11,557	144.52	204	9,641	121.17	145

US1\$=JPY88.09

US1\$=JPY79.97

US1\$=JPY79.57

Source: Prepared using Trade Statistics of Japan Monthly Reports

- Total imports in 2012 recovered to the level in 2010 before the earthquake, due to growth in the import of thermal coal. Import of coking coal did not reach the pre-earthquake level.
- Total import price declined 10% compared to 2011 but was still 21% higher than that in 2010 (21% for coking coal and 25% for thermal coal). If the cause for the higher price in 2011 was natural disasters such as floods hitting Australia, will the price also continue falling in 2013 and come close to the level in 2010?

(2) China

Table 4. Coal Imports of China According to Coal Type

	(thousand tons)								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coking coal	6,758	7,194	4,662	6,220	6,857	34,493	47,271	44,658	53,558
Thermal coal	3,783	5,638	10,522	13,302	10,288	38,566	51,333	54,262	101,492
Anthracite	7,819	12,790	22,626	28,414	19,388	34,388	26,461	36,124	34,453
Other coal	236	506	434	3,069	4,301	19,189	41,183	47,337	45,422
Total imports	18,597	26,128	38,244	51,005	40,834	126,636	166,248	182,381	234,925

Source: Prepared using statistics of the General Administration of Customers of the People's Republic of China

- Imports expanded sharply by 52.54 million metric tons in 2012. Of that increase, 47.23 million metric tons was an increase in thermal coal.
- Import of coking coal in 2012 increased 8.9 million metric tons, which looks smaller than the increase in thermal coal, but the import of coking coal increased 46.7 million metric tons from 2008, four years ago. The wonder is why the supply of coal in the Asia Pacific region does not become tighter.

Table 5. Coal Imports of China by Source

	(thousand tons)								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	5,352	5,885	6,897	4,520	3,543	44,602	36,962	32,556	59,534
Indonesia	1,315	2,400	5,167	14,060	11,615	30,461	56,295	64,785	68,454
Vietnam	6,177	10,194	20,080	24,612	16,906	24,078	18,047	22,065	17,416
Russia	607	897	991	269	760	11,787	11,619	10,596	20,183
Mongolia	1,601	2,539	2,352	3,241	4,044	6,002	16,595	20,155	21,727
Canada	1,815	1,229	146	223	560	4,093	5,506	4,494	8,363
North Korea	1,571	2,804	2,485	3,741	2,537	3,577	4,641	11,047	11,805
Columbia						0	3,778	1,310	2,568
South Africa						732	7,004	9,254	14,277
USA			0	0	151	805	4,534	4,900	9,310
Others	157	180	126	340	719	501	1,268	1,218	1,286
Total imports	18,597	26,128	38,244	51,005	40,834	126,636	166,248	182,381	234,925

Source: Prepared using statistics of the General Administration of Customers of the People's Republic of China

- In 2012, an increase in imports from Australia was pronounced at about 27 million metric tons.
- Increase in imports from Mongolia tended to be stagnant. Imports from Mongolia increased only 1.57 million metric tons from 2011.

- On the other hand, imports from Canada, Columbia and the US almost doubled. Imports from South Africa also increased 1.5 times. Is China intentionally trying to diversify import sources?

Table 6. Thermal Coal Imports of China by Source

(thousand tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia		2,449	4,937	2,174	1,894	15,777	13,312	17,885	38,870
Indonesia		2,350	4,687	10,763	7,538	13,125	20,102	20,535	33,492
Vietnam		0	0	0	62	0	0	30	
Russia		839	897	208	371	6,021	5,421	4,470	6,652
Mongolia		0	0	0	180	1,823	1,507	51	2,128
Canada		0	0	0	0	764	1,398	1,108	940
North Korea		0	0	0	0	0	2		
Columbia						0	3,365	945	2,484
South Africa						732	5,685	8,248	12,582
USA		-	0	0	0	215	427	566	4,299
Others	3,783	0	1	157	242	109	116	425	45
Total imports	3,783	5,638	10,522	13,302	10,288	38,566	51,333	54,262	101,492

Source: Prepared using statistics of the General Administration of Customers of the People's Republic of China

- China's thermal coal imports almost doubled in the one year of 2012.
- Australia increased thermal coal exports by 21 million metric tons and became the largest supplier of thermal coal, overtaking Indonesia.

Table 7. Coal Exports of China According to Coal Type

(thousand tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coking coal	5,689	5,261	4,369	2,543	3,456	636	1,139	3,593	1,308
Thermal coal	74,484	60,770	53,691	45,294	35,756	18,477	13,563	6,703	4,526
Anthracite	6,384	5,645	5,175	5,255	6,073	3,235	4,253	4,208	3,218
Other coal	55	49	62	74	147	47	74		75
Total imports	86,611	71,725	63,297	53,167	45,432	22,396	19,028	14,504	9,127

Source: Prepared using statistics of the General Administration of Customers of the People's Republic of China

- China's exports declined 90% compared to 2004.

(3) Australia

Table 8. Coal Exports of Australia by Place of Destination

	2006	2007	2008	2009	2010	2011	2012
Japan	103,360,070	114,714,914	117,921,249	101,367,628	117,821,427	106,117,659	113,732,473
South Korea	23,483,324	22,061,490	37,316,856	41,707,282	43,623,000	45,831,801	45,842,801
China	7,759,604	4,374,565	3,527,902	47,455,139	37,143,565	34,007,133	62,816,061
India	18,919,323	22,363,012	25,750,510	27,395,352	32,827,656	30,201,842	31,963,381
Taiwan	22,388,653	25,473,971	24,280,372	22,464,463	28,718,840	26,872,761	24,299,904
Total	237,155,485	250,782,121	261,208,010	274,549,698	301,046,486	280,790,780	315,788,689

(tons)

Source: Prepared using Australia Bureau of Statistics

- Exports increased 78.6 million metric tons in the six years since 2006, of which 55 million metric tons were exported to China.
- The percentage of exports to Japan declined from 44% in 2006 to 36% in 2012.
- Exports to India also increased 13 million metric tons during this time.

(To be continued in the next issue)

Please direct inquiries to: report@tky.ieej.or.jp