

MANAGEMENT DISCUSSION AND ANALYSIS

FOR THE CONSOLIDATED FINANCIAL STATEMENTS
YEAR 2018

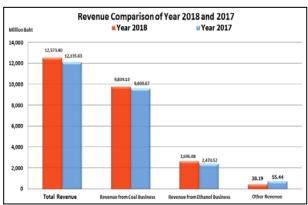
LANNA RESOURCES PUBLIC COMPANY LIMITED MANAGEMENT DISCUSSION AND ANALYSIS

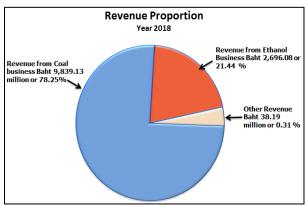
(For the Consolidated Financial Statements Year 2018)

OVERALL OPERATING RESULTS

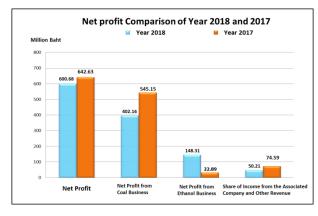
The overall operating results for year 2018 of the Company and subsidiary companies can still be considered as good and satisfactory in terms of revenue and net profit, despite the fact that coal prices had started to decline during the second half of 2018 as global economy began to slow down. Additionally, the Indonesian Government policy has become more stringent, namely the Domestic Market Obligation, which stipulates higher portion of coal supply to the domestic consumers with lower selling price than that of export. For the ethanol-for-fuel business, which is the secondary core business, was still profitable due to the decrease in price of molasses, which is the raw material and major cost of ethanol production.

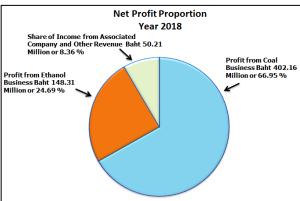
The Company and subsidiary companies had total revenue in year 2018 of Baht 12,573.40 million, which increased from the previous year by Baht 437.77 million or 3.61 percent. The revenue proportion from coal business, ethanol business and other revenue accounted for 78.25, 21.44 and 0.31 percent, respectively.





The Company and subsidiary companies had total net profit in year 2018 of Baht 600.68 million or net earnings per share of Baht 1.14, a decrease from the previous year of Baht 41.95 million or 6.53 percent. The net profit proportion from coal business, ethanol business, and other revenue including share of income from the associated company accounted for 66.95, 24.69 and 8.36 percent, respectively, with the net profit margin of 8.33 percent, EBITDA margin of 18.22 percent, and return on equity of 13.94 percent.





The overall financial status and liquidity of the Company and subsidiary companies as at end of 2018 could be considered as good. The current ratio was as high as 1.61 times, but the total debt to total assets ratio was only 38.67 percent with debt to equity ratio of only 63.05 percent.

Operating Results of the Core Business in 2018, The Coal Business: The total revenue was Baht 9,839.13 million, which increased from the previous year by Baht 229.46 million or 2.39 percent, due to the increase in coal sales volume of 9.22 percent, but the average coal selling price decreased from the previous year by 6.25 percent. The net profit derived from shareholding proportion of the Company was Baht 402.16 million, which decreased from the previous year by Baht 142.99 million or 26.23 percent due to the decline in global coal prices during the second half of 2018.

Operating Results of the Secondary Core Business in 2018, the Ethanol-for-Fuel Business: The total revenue was Baht 2,696.08 million, which increased from the previous year by Baht 225.56 million or 9.13 percent due to the increase in ethanol sales volume of 18.09 percent but the average ethanol selling price decreased from the previous year by 7.58 percent. The net profit derived from shareholding proportion of the Company was Baht 148.31 million, which increased from the previous year by Baht 125.42 million or 547.92 percent due to the flood incident in late 2017 that caused damage and collapse of the wastewater treatment pond resulting in a temporary halt of ethanol production and distribution for approximately two months, incurring extraordinary expense for compensation payment to the affected villagers at approximately Baht 73.32 million. At present, the wastewater treatment pond has been rectified to be strong and stable, with reduction of wastewater level in each pond to obtain higher freeboard distance, therefore, such problem did not occur again in year 2018.

OPERATING RESULTS ANALYSIS

Revenue	Year 2018		Year 2017		Increase (Decrease)	
	Million Baht	%	Million Baht	%	Million Baht	%
Revenue from Coal Sales	9,839.13	78.25	9,609.67	79.19	229.46	2.39
Revenue from Ethanol Sales	2,696.08	21.44	2,470.52	20.36	225.56	9.13
Other Revenue	38.19	0.31	55.44	0.45	(17.25)	(31.11)
Total Revenue	12,573.40	100.00	12,135.63	100.00	437.77	3.61

REVENUE: The revenue of the Company and subsidiary companies in year 2018 totaled Baht 12,573.40 million, which increased from the previous year by Baht 437.77 million or 3.61 percent due to the following reasons:

- (1) Revenue from coal business totaled Baht 9,839.13 million, which increased from the previous year by Baht 229.46 million or 2.39 percent. This was due to the increase in coal sales volume as described above.
- (2) Revenue from ethanol business totaled Baht 2,696.08 million, which increased from the previous year by Baht 225.56 million or 9.13 percent. This was due the increase in ethanol sales volume as described above; and
- (3) Other revenue totaled Baht 38.19 million, which decreased from the previous year by Baht 17.25 million or 31.11 percent due to the decrease in interest received and revenue from miscellaneous items.

	Year 2018		Year 2017		Increase (Decrease)	
Expenses	Million Baht	% Sales	Million Baht	% Sales	Million Baht	% Sales
Coal Business						
Cost of Sales	6,010.43	61.09	5,628.56	58.57	381.87	6.78
Selling and Administrative Expenses	2,679.41	27.23	2,295.36	23.89	384.05	16.73
Financial Expense	22.27	0.23	31.04	0.32	(8.77)	(28.25)
Corporate Income Tax	421.88	4.29	644.15	6.70	(222.27)	(34.51)
Ethanol Business						
Cost of Sales	2,257.91	83.75	2,219.66	89.85	38.25	1.72
Selling and Administrative Expenses	77.38	2.87	171.68	6.95	(94.30)	(54.93)
Financial Expense	40.79	1.51	32.85	1.33	7.94	24.17
Corporate Income Tax	27.49	1.02	(0.50)	(0.02)	27.99	N/A

COAL BUSINESS EXPENSES: The coal business expenses of the Company and subsidiary companies in year 2018 totaled Baht 9,133.99 million, which increased from the previous year by Baht 534.88 million or 6.22 percent, due to the following reasons:

- (1) Cost of coal sales increased from the previous year by Baht 381.87 million or 6.78 percent, due to the increase in coal sales volume by 9.22 percent but the average cost of coal sales decreased by 2.23 percent.
- (2) Selling and administrative expenses increased from the previous year by Baht 384.05 million or 16.73 percent due to the provision for the transfer quota fee for compensation of the difference in domestic coal sale volume in Indonesia according to the law of Indonesia.
- (3) Financial expense decreased from the previous year by Baht 8.77 million or 28.25 percent due to the decrease in interest expense; and
- (4) Corporate income tax decreased from the previous year by Baht 222.27 million or 34.51 percent in line with the decrease in profit.

ETHANOL BUSINESS EXPENSES: Ethanol business expenses of the subsidiary company in year 2018 totaled Baht 2,403.57 million, which decreased from the previous year by Baht 20.12 million or 0.83 percent, due to the following reasons:

- (1) Cost of ethanol sales increased from the previous year by Baht 38.25 million or 1.72 percent due to the increase in ethanol sales volume by 18.09 percent, but the average cost of ethanol sales decreased by 13.88 percent due to 17.97 percent decrease in price of molasses, which is the raw material and major cost of ethanol production.
- (2) Selling and administrative expenses decreased from the previous year by Baht 94.30 million or 54.93 percent, due to the compensation of Baht 73.32 million paid to the affected villagers from the flood incident that caused damage to the treated wastewater pond in 2017 as described above.
- (3) Financial expense increased from the previous year by Baht 7.94 million or 24.17 percent due to the increase in short-term loan for working capital purpose; and
- (4) There was no corporate income tax on the earnings from the Ethanol Production Line No. 2, having received the Board of Investment Promotion according to the Investment Promotion Act B.E. 2520. However, the Ethanol Production Line No. 1 that the investment promotion certificate has expired was subject to corporate income tax of Baht 27.49 million in line with the increase in profit.

Gross Profit	Coal Business		Ethanol Business		Total	
GIUSS FIUIIL	Million Baht % Million Baht %		%	Million Baht	%	
Year 2018						
Revenues from Sales	9,839.13	100.00	2,696.08	100.00	12,535.21	100.00
Less Cost of Sales	6,010.43	61.09	2,257.91	83.75	8,268.34	65.96
Gross Profit	3,828.70	38.91	438.17	16.25	4,266.87	34.04
Year 2017						
Revenues from Sales	9,609.67	100.00	2,470.52	100.00	12,080.19	100.00
Less Cost of Sales	5,628.56	58.57	2,219.66	89.85	7,848.22	64.97
Gross Profit	3,981.11	41.43	250.86	10.15	4,231.97	35.03

GROSS PROFIT: The gross profit of the Company and subsidiary companies in year 2018 totaled Baht 4,266.87 million, or 34.04 percent of the sales revenue, which was close to the previous year with the gross profit of Baht 4,231.97 million or 35.03 percent of the sales revenue, due to the following reasons:

- (1) Gross profit from coal business was 38.91 percent of the sales revenue, which decreased from the previous year with gross profit of 41.43 percent of the sales revenue. This was due to the decrease in average coal selling price of 6.25 percent, while the average cost of coal sales slightly decreased by only 2.23 percent; and
- (2) Gross profit from ethanol business was 16.25 percent of the sales revenue, which increased from the previous year with gross profit of 10.15 percent of the sales revenue. Despite the decrease in average ethanol selling price of 7.58 percent, the average cost of ethanol sales decreased by 13.88 percent due to 17.97 percent decrease in price of molasses, which is the raw material and major cost of ethanol production.

	Year 2018		Year 2017		Increase (Decrease)	
Net Profit	Million Baht	%	Million Baht	%	Million Baht	%
Profit from Coal Business	402.16	66.95	545.15	84.83	(142.99)	(26.23)
Profit form Ethanol Business	148.31	24.69	22.89	3.56	125.42	547.92
Share of Income from Associated Company and Other Revenue	50.21	8.36	74.59	11.61	(24.38)	(32.69)
Net Profit	600.68	100.00	642.63	100.00	(41.95)	(6.53)
Net Earnings per share (Baht per share)	1.1	14	1.2	2	(0.08)	(6.53)

NET PROFIT: The net profit of the Company and subsidiary companies in year 2018 totaled Baht 600.68 million, or net earnings per share of Baht 1.14, which decreased from the previous year by Baht 41.95 million or net earnings per share of Baht 0.08 or 6.53 percent, due to the following reasons:

- (1) Net profit from coal business derived from shareholding proportion of the Company was Baht 402.16 million or 66.95 percent of the total net profit, which decreased from the previous year by Baht 142.99 million or 26.23 percent due to the reduction in global coal prices and there was a provision for the transfer quota fee for compensation of the difference in domestic coal sale volume in Indonesia according to the law of Indonesia as described above.
- (2) Net profit from ethanol business derived from shareholding proportion of the Company was Baht 148.31 million or 24.69 percent of the total net profit, which increased from the previous year by Baht 125.42 million or 547.92 percent due to the decrease in price of molasses, which is the raw material and major cost of ethanol production, as well as in 2017 there was extraordinary expenses for compensation payment to the affected villagers from flood incident that caused damage and collapse of the wastewater treatment pond as described above; and

(3) Share of income from associated company and other revenue were Baht 50.21 million or 8.36 percent of the total net profit, which decreased from the previous year by Baht 24.38 million or 32.69 percent, due to the decrease in share of income from associated company including interest received and revenue from miscellaneous items.

EARNINGS EFFICIENCY

- (1) EBITDA (Earnings before financial expenses, corporate income tax, depreciation and amortization) of the Company and subsidiary companies in year 2018 was Baht 2,291.31 million, which decreased from the previous year by Baht 230.11 million or 9.13 percent and EBITDA margin was at 18.22 percent, which decreased from the previous year by 12.29 percent.
- (2) Net profit margin of the Company and subsidiary companies in year 2018 was at 8.33 percent, which decreased from the previous year by 10.65 percent.
- (3) Return on equity of the Company and subsidiary companies in year 2018 was at 13.94 percent, which decreased from the previous year by 9.19 percent.
- (4) Return on total assets of the Company and subsidiary companies in year 2018 was at 11.38 percent, which decreased from the previous year by 13.04 percent. The return on fixed assets in year 2018 was at 45.83 percent, which decreased from the previous year by 8.31 percent.

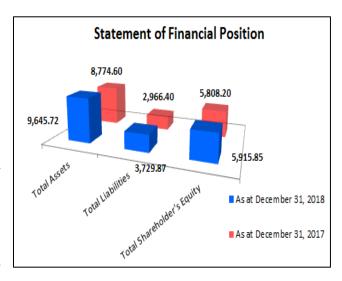
STATEMENT OF FINANCIAL POSITION

	Unit: Mill	Increase (Decrease)			
Description	As at December 31, 2018	As at December 31, 2017	Million Baht	%	
Total Assets	9,645.72	8,774.60	871.12	9.93	
Total Liabilities	3,729.87	2,966.40	763.47	25.74	
Total Shareholders' Equity	5,915.85	5,808.20	107.65	1.85	
Book Value-Baht per Share	8.31	8.10	0.21	2.59	
Remark: Registered par value of Baht 1 per share					

ASSETS: The total assets of the Company and subsidiary companies as at end of year 2018 increased from the previous year by Baht 871.12 million or 9.93 percent, due to (1) Current assets decreased by Baht 84.79 million or 1.93 percent, consisting of: (A) cash and cash equivalent decreased by Baht 710.66 million or 36.21 percent; (B) trade accounts receivable and other accounts receivable decreased by Baht 178.69 million or 14.09 percent; (C) inventories decreased by Baht 23.11 million or 5.88 percent; and (D) other current assets, most of which were prepaid corporate income tax, prepaid expenses, etc., increased by Baht 827.67 million or 106.02 percent; and (2) Noncurrent assets, most of which were properties, buildings and equipment and the deferred transferred service fees increased by Baht 955.91 million or 21.87 percent.

LIABILITIES: The total liabilities of the Company and subsidiary companies as at end of year 2018 increased from the previous year by Baht 763.47 million or 25.74 percent, due to (1) Trade accounts payable and other accounts payable increased by Baht 59.84 million or 10.74 percent (2) short-term and long-term loan of the subsidiary company to use as working capital for the procurement of raw material for ethanol production and as investment capital for construction of spent wash evaporation plant increased by Baht 981.56 million or 96.53 percent (3) accrued expenses, most of which were overburden removal expenses and freight cost, etc., decreased by Baht 214.92 million or 26.90 percent; and (4) other liabilities, most of which were the lease agreement on coal transport jetty investment of the subsidiary company and provision for mine rehabilitation and allowance for long-term employee benefits, etc., decreased by Baht 63.01 million or 10.62 percent.

TOTAL SHAREHOLDERS' EQUITY: The total shareholders' equity of the Company and subsidiary companies as at end of year 2018 increased from the previous year by Baht 107.65 million or 1.85 percent, resulting in an increase of the share's book value from Baht 8.10 per share to Baht 8.31 per share, an increase of Baht 0.21 per share or 2.59 percent. This was due to: (1) increase in retained earnings of Baht 120.03 million or 4.01 percent due to an increase in net profit of Baht 600.68 million and there was dividend payment of Baht 483 million and miscellaneous items increased by Baht 2.35 million (2) net decrease in translation adjustment in financial of Baht 8.37 million or 16.42 percent; and (3) decrease in minority shareholders' equity of Baht 4.01 million or 0.26 percent.



CASH FLOWS

Description	Unit: Million Baht			
Description	Year 2018	Year 2017		
Cash Flows from (used in) Operating Activities	1,071.15	2,615.61		
Cash Flows from (used in) Investing Activities	(1,464.32)	(817.54)		
Cash Flows from (used in) Financing Activities	(120.86)	(1,381.37)		
Increase (Decrease) in Translation Adjustments in Financial Statements	(8.68)	13.20		
Net Increase (Decrease) in Cash	(522.71)	429.90		
Cash at the beginning of the period	1,128.07	698.17		
Cash at the end of the period	605.36	1,128.07		

- (1) The net cash from operating activities of the Company and subsidiary companies in year 2018 totaled Baht 1,071.15 million, consisting of: (A) income before corporate income tax and interest expense of Baht 1,497.23 million; (B) transactions that did not affect the cash such as depreciation and amortization of assets, most of which were mostly transactions concerning coal mining operations of the subsidiary companies in Indonesia of Baht 845.20 million; (C) increase in operating assets of Baht 559.76 million; (D) increase in operating liabilities of Baht 137.13 million; and (E) an increase in interest received of Baht 24.92 million; and (F) interest expense and taxes increased by Baht 873.57 million.
- (2) The net cash used in investing activities of the Company and subsidiary companies in year 2018 totaled Baht 1,464.32 million, consisting of: (A) properties, buildings and equipment, most of which were the coal transport jetty construction of the Company and wastewater treatment system construction of the subsidiary company increased by Baht 669.77 million; (B) increase in expenses of coal mine projects of subsidiary companies in Indonesia of Baht 551.23 million; and (C) short-term capital investment and other items increased by Baht 243.32 million.
- (3) The net cash used in financing activities of the Company and subsidiary companies in year 2018 totaled Baht 120.86 million, consisting of: (A) increase in loan of Baht 978.21 million, (B) increase in interest expense under investment lease agreement of Baht 162.26 million. (C) dividend payment of Baht 930.34 million, and (D) decrease in minority shareholders' equity of Baht 6.47 million.

ASSET MANAGEMENT CAPABILITY

- (1) The trade accounts receivable and other accounts receivable of the Company and subsidiary companies as at end of year 2018 were 11.30 percent of total assets. The provisions of doubtful debts are considered based on review of receivable period and assessment of past debt collection experience. Therefore, there was no provision of doubtful debt in year 2018.
- (2) Inventory of the Company and subsidiary companies as at end of year 2018 was 3.83 percent of total assets without deterioration of the products. Therefore, there was no allowance for impairment loss of inventory in year 2018.
- (3) The Company's goodwill incurred from investment in the subsidiary company in Indonesia as at end of year 2018 was accounted for 1.93 percent of total assets, of which the Company considered financial projection and impact in various aspects and found that it was not yet necessary for establishment of allowance for goodwill impairment from investment in year 2018.

LIQUIDITY AND SUFFICIENCY OF CAPITAL

- (1) The total debt to equity ratio of the Company and subsidiary companies as at end of year 2018 was as low as 0.63:1 with appropriate capital structure, and the Company has sufficient cash generation and credit facilities for future investment projects.
- (2) The current ratio of the Company and subsidiary companies as at end of year 2018 were as high as 1.61 times in spite of a quick ratio of only 0.87 times but there was no financial liquidity problem. Nonetheless, the Company and subsidiary companies still have sufficient credit facilities for working capital in the future.
- (3) The cash cycle of the Company and subsidiary companies in year 2018 was only 29 days, an increase from the previous year of 2 days. The average debt collection period was at 33 days, an increase from the previous year of 6 days. The average inventory turnover was at 17 days, a decrease from the previous year of 3 days, but the average debt repayment period was at 21 days, an increase from the previous year of 1 day.

DEBT OBLIGATION

The subsidiary company in a business of ethanol-for-fuel production and distribution has obligation according to the terms and conditions of the loan agreement with a local commercial bank as follows:

- (1) The subsidiary company must maintain its debt to equity ratio (D/E ratio) not exceeding 2 times and debt service coverage ratio (DSCR) of no less than 1.25 times until the expiration of the loan agreement. The subsidiary company is able to maintain the D/E ratio and DSCR as required by the contractual obligation of the loan without any default.
- (2) The lending bank has stipulated that the Company must maintain its shareholding proportion in the subsidiary company of no less than 50 percent of the total number of shares during the whole duration of the loan agreement. Accordingly, the Company has no plan to sell or decrease its shareholding proportion in the subsidiary company to below 50 percent of the total number of shares.
- (3) The lending bank has stipulated that the subsidiary company cannot pay dividend to its shareholders, including the Company, if the subsidiary company cannot comply with the conditions as stipulated within the loan agreement, such as the maintenance of D/E ratio, DSCR, and shareholding proportion of the Company in the subsidiary company, etc. Accordingly, the subsidiary company has never breached the conditions of loan agreements and has been provided with good financial support from lending banks.

FUTURE TREND

Coal Business: It is expected that the operating results of the coal business, which is a core business, will continue to be profitable in year 2019, despite the fact that coal prices had been declining since the second half of 2018 as global economy began to slow down and the Indonesian Government policy became more stringent. Nevertheless, the Company will endeavour to manage and resolve problems with prudence in order to reduce costs and various expenses to be as low as possible for good operating results.

Ethanol Business: It is expected that the operating results of the ethanol business, which is a secondary core business, will continue to be profitable in year 2019 as well, due to the decrease in price of molasses, which is the raw material and major cost of ethanol production. Moreover, the wastewater evaporation plant construction with capacity of 3,000 cubic meters per day will be completed within the 1st quarter of 2019, which is deemed an effective and sustainable solution for treatment of wastewater from the ethanol production process. Furthermore, a potassium humate will be derived as a by-product from this wastewater evaporation process at approximately 50,000 metric tons per year, which can be sold for additional revenue and profit.

Overall Business: The overall operating results of the coal business, which is a core business, and the ethanol business, regarded as a secondary core business, are expected to be profitable in year 2019 and enable the Company to proceed with regular dividend payments to shareholders according to the established policy.