Economic Performance

Indicators	Performance	Unit	2016	2017	2018	2019
GRI 201-1	**Economic performance**					
	Total Revenue	Million Baht	191,205	190,697	232,598	274,110
	Thailand	Percent	96	97	75	71
	International	Percent	4	3	25	29
	Annual Dividend	Million Baht	16,543	16,824	9,793	12,054
	Cost of Sales	Million Baht	134,371	131,899	162,477	189,966
	Employee Expenses	Million Baht	13,731	14,318	18,265	21,880
GRI 204-1	**Procurement**					
	Procurement from local suppliers					
	Total (number of suppliers)	Percent	97	97	96	98
	Total (purchase value)	Percent	87	97	91	93
	Alcoholic beverages (number of suppliers)	Percent	97	95	95	96
	Alcoholic beverages (purchase value)	Percent	80	96	92	89
	Non-alcoholic beverages (number of suppliers)	Percent	98	98	97	99

Environmental Performance

Indicators	Material Aspects	Unit	2016	2017	2018	2019
GRI 302-1	**Energy consumption within the organization**					
	Total energy consumption within the organization	MJ	6,705,111,406	6,548,882,864	6,272,113,885	8,230,240,250
	Total fuel consumption within the organization from non-renewable sources	MJ	4,421,419,988	4,217,717,527	3,842,134,240	4,449,797,246
	- Fuel oil	MJ	1,784,765,661	1,817,833,830	1,364,409,734	1,125,218,753
	- Natural gas	MJ	262,852,131	112,984,871	3,298,576	19,089,673
	- Ethane	MJ	787,146	0	0	0
	- Reused oil	MJ	0	0	64,885,721	316,760,421
	- Gasoline	MJ	5,126,389	4,584,687	4,303,097	4,308,057
	- Diesel	MJ	1,202,025,981	1,137,919,666	997,922,778	1,083,453,896
	- Bituminous Coal	MJ	1,067,712,824	1,040,995,429	1,300,044,619	1,719,556,012
	- LPG	MJ	98,149,857	103,399,044	107,269,714	181,410,434
	Total fuel consumption within the organization from renewable sources	MJ	1,235,179,077	1,190,073,807	1,072,622,936	2,658,773,769
	- Biogas	MJ	587,051,682	583,460,442	565,276,866	668,481,859
	- Concentrated slop	MJ	579,916,771	558,402,242	451,631,413	269,827,965
	- Technical alcohol	MJ	68,210,624	48,211,123	55,714,657	54,483,922

	- Wood Chip	MJ	0	0	0	1,631,099,974
	- Rice Husk	MJ	0	0	0	34,279,740
	- Palm Shell	MJ	0	0	0	0
	- Biofuels	MJ	0	0	0	600,310
	Electricity and steam purchased for consumption	MJ	1,074,712,602	1,172,076,339	1,085,069,893	1,291,715,097
	- Electricity consumption	MJ	1,066,652,905	1,094,353,260	991,558,614	1,165,983,325
	- Steam consumption	MJ	8,059,697	77,723,079	93,511,279	125,731,773
	Self-generated electricity from renewable sources	MJ	0	456	442,337	392,535
	- Solar energy	MJ	0	456	442,337	392,535
	Electricity sold	MJ	26,200,260	30,985,265	35,977,518	170,438,396

Indicators	**Material Aspects**	**Unit**	**2016**	**2017**	**2018**	**2019**
	- Electricity sold from renewable sources	MJ	26,200,260	30,985,265	35,977,518	170,438,396
	Energy intensity (Beverage) (9)	MJ/ hL	212.97	215.48	204.33	244.89
	- Energy intensity (Distillery)	MJ/ hL	607.94	565.59	555.09	701.09
	- Energy intensity (Brewery)	MJ/ hL	189.33	198.86	213.01	218.25
	- Energy intensity (OISHI)	MJ/ hL	122.04	119.65	111.48	130.00
	- Energy intensity (Sermsuk)	MJ/ hL	47.23	50.18	43.16	41.83
	Energy intensity (Beverage - Thailand) (9)	MJ/ hL	212.97	215.48	204.33	232.94
	- Energy intensity (Grand Royal Group) (2)	MJ/ hL	N/A	N/A	N/A	592.44
	- Energy intensity (Inver House) (2)	MJ/ hL	N/A	N/A	N/A	757.44
	Energy intensity (Food)	MJ/ kg	N/A	8.86	6.83	6.93
GRI 303-3	**Water Withdrawal (3)**					
	Total volume of water withdrawn	Megaliters	23,516	24,842	19,883	46,561
	- Surface water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	15,276	18,827	15,128	18,233
	- Surface water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total surface water withdrawn	Megaliters	15,276	18,827	15,128	18,233
	- Ground water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	5,761	3,892	3,435	4,249
	- Ground water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total ground water withdrawn	Megaliters	5,761	3,892	3,435	4,249

	- Seawater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	0	0	0	0
	- Seawater (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total seawater withdrawn	Megaliters	0	0	0	0
	- Produced water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	0	0	0	0
	- Produced water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total produced water withdrawn	Megaliters	0	0	0	0

Indicators	Material Aspects	Unit	2016	2017	2018	2019
	- Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	2,479	2,123	1,320	1,465
	- Third-party water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				134
	- Total third-party water withdrawn	Megaliters	2,479	2,123	1,320	1,599
	Total volume of water withdrawn in water stressed areas	Megaliters	N/A	N/A	N/A	25,000
	- Surface water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	9,638
	- Surface water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total surface water withdrawn	Megaliters	N/A	N/A	N/A	9,638
	- Ground water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	2,640
	- Ground water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total ground water withdrawn	Megaliters	N/A	N/A	N/A	2,640
	- Seawater (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	0
	- Seawater (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total seawater withdrawn	Megaliters	N/A	N/A	N/A	0
	- Produced water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	0
	- Produced water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	- Total produced water withdrawn	Megaliters	N/A	N/A	N/A	0

	– Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	443
	– Third-party water (Other water > 1000 mg/ L Total Dissolved Solids)	Megaliters				0
	– Total third-party water withdrawn	Megaliters	N/A	N/A	N/A	443
	– Third-party water that is surface water	Megaliters	N/A	N/A	N/A	443

Indicators	Material Aspects	Unit	2016	2017	2018	2019
	– Third-party water that is ground water	Megaliters	N/A	N/A	N/A	0
	– Third-party water that is seawater	Megaliters	N/A	N/A	N/A	0
	– Third-party water that is produced water	Megaliters	N/A	N/A	N/A	0
GRI 303-4	**Water Discharge** (3) (4)					
	Total volume of water discharge	Megaliters	11,546	12,705	9,485	11,040
	– Surface water	Megaliters	N/A	N/A	N/A	8,313
	– Ground water	Megaliters	N/A	N/A	N/A	0
	– Seawater	Megaliters	N/A	N/A	N/A	21
	– Third-party water	Megaliters	N/A	N/A	N/A	2,707
	Total volume of freshwater discharge (≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	5,305
	Total volume of other water discharge (> 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	5,735
	Total volume of freshwater discharge in water stressed areas (≤ 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	2,689
	Total volume of other water discharge in water stressed areas (> 1000 mg/L Total Dissolved Solids)	Megaliters	N/A	N/A	N/A	3,604
GRI 303-5	**Water Consumption** (3)					
	Total water consumption	Megaliters	11,970	12,137	10,398	13,040
	Total water consumption in water stressed areas	Megaliters	N/A	N/A	N/A	6,435
	Change in water storage (8)	Megaliters	N/A	N/A	N/A	109
	Water Intensity					
	Water intensity (Beverage)	hL/ hL	3.84	4.01	3.52	4.08
	– Water intensity (Distillery)	hL/ hL	10.23	9.89	7.26	7.68
	– Water intensity (Brewery)	hL/ hL	1.56	1.46	2.07	2.53
	– Water intensity (OISHI)	hL/ hL	2.20	3.62	2.97	2.69
	– Water intensity (Sermsuk)	hL/ hL	3.56	3.41	3.17	3.57

Indicators	Material Aspects	Unit	2016	2017	2018	2019

	Water intensity (Beverage – Thailand)	hL/ hL	3.84	4.01	3.52	3.83
	– Water intensity (Grand Royal Group)	hL/ hL	N/A	N/A	N/A	11.42
	– Water intensity (Inver House)	hL/ hL	N/A	N/A	N/A	15.19
	Water intensity (Food)	hL/ hL	N/A	0.28	0.22	0.21
GRI 305-1	**Direct (Scope 1) GHG emissions (5)**					
	Direct (Scope 1) GHG emissions	Metric tons CO_2e	1,011,697	1,144,905	1,053,716	1,371,739
	Gross direct (Scope 1) GHG emissions	Metric tons CO_2e	760,519	901,067	826,801	927,649
	Biogenic CO_2 emissions (10)	Metric tons CO_2	251,178	243,837	226,915	444,090
GRI 305-2	**Energy indirect (Scope 2) GHG emissions**					
	Energy indirect (Scope 2) GHG emissions	Metric tons CO_2e	165,668	179,078	163,317	186,696
GRI 305-4	**GHG emissions intensity (5)**					
	GHG emissions (Scope 1 and Scope 2)	Metric tons CO_2e	926,187	1,080,145	990,119	1,114,345
	GHG emissions intensity (Beverage)	kg CO_2e/ hL	29.71	36.06	34.54	35.23
	– GHG emissions intensity (Distillery)	kg CO_2e/ hL	108.07	131.48	133.32	130.15
	– GHG emissions intensity (Brewery)	kg CO_2e/ hL	18.99	19.87	21.68	21.88
	– GHG emissions intensity (OISHI)	kg CO_2e/ hL	12.39	12.31	11.99	15.49
	– GHG emissions intensity (Sermsuk)	kg CO_2e/ hL	4.22	5.12	4.39	4.60
	GHG emissions intensity (Thailand Beverages)	kg CO_2e/ hL	29.71	36.06	34.54	34.41
	– GHG emissions intensity (Grand Royal Group)	kg CO_2e/ hL	N/A	N/A	N/A	61.63
	– GHG emissions intensity (Inver House)	kg CO_2e/ hL	N/A	N/A	N/A	60.26
	GHG emissions intensity (Food)	kg CO_2e/ kg	N/A	1.12	0.86	0.85

Indicators	Material Aspects	Unit	2016	2017	2018	2019
GRI 306-2	**Waste by type and disposal method (7)**					
	Total weight of hazardous waste	Metric tons	N/A	N/A	318	185
	– Reuse	Metric tons	N/A	N/A	1	6
	– Recycling	Metric tons	N/A	N/A	173	93
	– Recovery, including energy recovery	Metric tons	N/A	N/A	31	59
	– Incineration (mass burn)	Metric tons	N/A	N/A	11	1
	– Landfill	Metric tons	N/A	N/A	102	18
	– Chemical Treatment	Metric tons	N/A	N/A	0	3
	– Deep Well injection	Metric tons	N/A	N/A	0	4
	Total weight of non-hazardous waste	Metric tons	N/A	N/A	13,155	38,071
	– Reuse	Metric tons	N/A	N/A	121	1,950
	– Recycling	Metric tons	N/A	N/A	10,051	18,404

	- Composting	Metric tons	N/A	N/A	864	12,194
	- Recovery, including energy recovery	Metric tons	N/A	N/A	346	236
	- Incineration (mass burn)	Metric tons	N/A	N/A	67	38
	- Landfill	Metric tons	N/A	N/A	1,706	5,238
	- Chemical treatment	Metric tons	N/A	N/A	0	10

Indicators	Material Aspects	Unit	2016	2017	2018	2019
DJSI	**Waste by type and total waste disposed**					
	Total waste generated[6]	Metric tons	79,468	65,645	13,473	38,256
	- General waste	Metric tons	2,053	2,936	N/A	N/A
	- Hazardous waste	Metric tons	194	261	N/A	N/A
	- By-product waste	Metric tons	64,789	46,922	N/A	N/A
	- Valuable waste	Metric tons	12,432	15,526	N/A	N/A
	Total waste used/ recycled/ sold	Metric tons	77,221	62,448	11,587	32,707
	Total waste disposed	Metric tons	2,248	3,197	1,886	5,314

Note

N/A: not applicable

1. In 2017 - 2018, ThaiBev's reporting of environmental performance was expanded to included the following operations:
   1.1 Environmental data from the food group in terms of food companies consisting of Oishi Trading Co., Ltd. (Ban Beung).
   1.2 Environmental data in terms of non-alcoholic beverages from S.P.M. Food and Beverage Co., Ltd. (under Sermsuk), discontinued as of 2019.
   1.3 Environmental data from Supply Chain business units such as Thai Beverage Energy Co., Ltd., Thai Beverage Logistics Co., Ltd, and Thai Molasses Co., Ltd.
2. In 2019, ThaiBev has expanded the scope of reporting to include overseas operations in Myanmar (Grand Royal Group) and the United Kingdom (Inver House).
3. In 2019, ThaiBev has started reporting water and effluents in line with the reporting requirements of GRI 303 (2018). Historical data has been recategorized where possible to report as per new requirements.
4. For 2016 - present, ThaiBev's water discharge has been updated to include water based soil conditioner donated to third-parties as third-party discharge. As such, water discharge volume has increased.
5. For 2016 - present, GRI 305-1 data has been corrected to include fugitive emissions from wastewater treatment systems. As such, scope 1 emissions and emission intensity have increased.
6. In 2016 - 2017, waste disposal was classified by types of waste from the manufacturing process, consisting of the following 4 types:
   6.1 General waste – disposed of by local authorities, such as the municipality or sub-district administration organization.
   6.2 Hazardous waste – disposed of by legally licensed companies.
   6.3 By-product waste – handled by Feed Addition Co., Ltd. one of ThaiBev's subsidiaries to generate income for the Company.
   6.4 Valuable waste – sorted so that it can be reused and recycled.
7. For 2018 - present, ThaiBev has reported waste by type and disposal method following reporting requirements of GRI 306-2
8. ThaiBev has defined water storage as having a significant water-related impact if the storage system is located in a water-stressed area.
9. ThaiBev energy intensity does not include energy consumption of renewable fuels used to generate electricity that is sold to third-parties.
10. ThaiBev has corrected previous reporting of biogenic emissions to include biogas and other renewable fuels consumption as per GRI 302-1. As such, historical emission intensities have been corrected.
11. Total energy consumption within the organization, energy intensity (food), direct (scope 1) GHG emissions, and GHG intensity (food) have been corrected for FY2018 as an error in reporting of natural gas was identified.
12. "Beverages - Thailand" refers to operations in Thailand only. "Beverages" refers to operations including overseas.
13. ThaiBev has not identified any non-compliance with environmental laws and/ or regulations in the previous four fiscal years of disclosure.

Occupational Health and Safety Summary Reporting Indicator

Indicator	Material Aspects	Unit	2016	2017	2018	2019
GRI INDICATORS						
GRI 403-8 (2018)	**Workers covered by an occupational health and safety management system**					
	1. Employee	Persons	40,702	41,367	41,551	45,863
		Percent	100	100	100	100
	2. Non-Employee Worker	Persons	N/A	N/A	N/A	21,545
		Percent	N/A	N/A	N/A	100
GRI 403-9 (2018)	**Work-related injuries**					
	Fatalities					
	1. Employee					
	- Number of cases	Persons	0	6	5	1
	- Rate	Per 1,000,000 Hours	N/A	N/A	N/A	0.01
	2. Non-Employee Worker					
	- Number of cases	Persons	0	0	0	0
	- Rate	Per 1,000,000 Hours	0	0	0	0
	Recordable work-related injuries					
	1. Employee	Per 1,000,000 Hours	5.37	2.47	2.52	2.63
	2. Non-Employee Worker	Per 1,000,000 Hours	3.64	2.07	0.00	2.51
	High-consequence work-related injuries (excluding fatalities)					
	1. Employee					
	- Number of cases	Persons	N/A	N/A	N/A	7
	- Rate	Per 1,000,000 Hours	N/A	N/A	N/A	0.07
	2. Non-Employee Worker					
	- Number of cases	Persons	N/A	N/A	N/A	0.00
	- Rate	Per 1,000,000 Hours	N/A	N/A	N/A	0.00
GRI 403-10 (2018)	**Work-related ill health**					
	Recordable work-related ill health					
	1. Employee					
	- Number of cases	Persons	0	6	0	3
	- Rate	Per 1,000,000 Hours	0.00	0.06	0.00	0.03
	2. Non-Employee Worker					
	- Number of cases	Persons	0	0	0	0
	- Rate	Per 1,000,000 Hours	0.00	0.00	0.00	0.00

Indicator	Material Aspects	Unit	2016	2017	2018	2019
GRI INDICATORS						
GRI 403-1 (2016) (1)	**Number of Health and Safety (H&S) Committee**	Percent	3.55	1.86	2.15	N/A
GRI 403-2 (2016) (1)	**Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities**					

	Lost day rate (LDR)					
	1. Employee					
	– Male	Per 200,000 Hours	8.97	6.33	4.70	N/A
	– Female	Per 200,000 Hours	4.28	4.24	1.53	N/A
	2. Contractors working on-site					
	– Male	Per 200,000 Hours	0.90	1.14	0.49	N/A
	– Female	Per 200,000 Hours	0.00	1.28	0.81	N/A
	Absentee rate (AR)					
	1. Employee					
	– Male	Percent	2.48	1.77	2.11	N/A
	– Female	Percent	2.22	1.40	2.56	N/A
	2. Contractors working on-site					
	– Male	Percent	0.47	0.43	0.21	N/A
	– Female	Percent	0.52	0.66	0.49	N/A
DJSI INDICATORS						
DJSI 3.6.3	**Lost Time Injury Frequency Rate (LTIFR)**					
	– Non-Employee Worker	Per 1,000,000 Hours	1.43	1.22	0.89	1.73
	– Employee	Per 1,000,000 Hours	3.16	1.90	1.36	1.67
DJSI 3.6.4	**Occupational Illness Frequency Rate – employee**	Per 1,000,000 Hours	0.00	0.06	0.00	0.03
DJSI 3.6.5	**Fatalities (Employee and Non-employee workers)**	Persons	0	6	5	1

Note:

N/A: Not Applicable

1. In 2019, ThaiBev Group has updated Occupational Health and Safety Indicators from GRI 403 version 2016 to GRI 403 version 2018
2. In 2016-2018, ThaiBev Group reported work-related injury based on GRI 2016
3. In 2019, ThaiBev Group reported work-related injury based on severity by recordable work-related injury and high consequence work-related injury based on GRI 2018
4. In 2019, ThaiBev Group extended work-related injury scope from Contractors working on-site to Non-employee worker based on GRI 2018
5. Work-related injury data from 2016 - 2018 has been recalculated from rate per 200,000 working hours to 1,000,000 working hours