

Performance Summary

Indicators		Environmental Performance						
		Material Aspects	Unit	2017	2018	2019	2020	
GR300-1	Energy consumption within the organization	MJ	6,546,882,884	6,372,133,983	8,236,240,250	8,233,894,388		
	Total fuel consumption within the organization		MJ	4,237,717,327	3,942,134,248	4,449,797,248	4,149,240,911	
	- Fuel oil	MJ	1,817,833,831	1,364,409,734	1,525,218,753	1,213,782,780		
	- Natural gas	MJ	112,084,871	3,298,570	19,088,673	60,188,652		
	- Heavy oil	MJ	0	64,885,721	318,740,421	220,280,652		
	- Gasoline	MJ	4,584,087	4,303,077	4,306,057	4,881,193		
	- Diesel	MJ	1,137,919,666	907,922,778	1,083,453,896	903,854,964		
	- Bituminous Coal	MJ	1,340,995,429	3,306,044,819	1,719,994,012	1,463,536,289		
	- Lignite	MJ	103,369,044	107,289,734	181,414,834	224,755,643		
	Total fuel consumption within the organization from renewable sources		MJ	1,196,073,887	1,074,624,936	2,848,778,788	2,968,919,238	
	- Biogas	MJ	583,480,442	565,276,860	661,481,950	629,994,793		
	- Compressed air	MJ	558,402,242	461,631,413	269,697,965	198,732,985		
	- Technical alcohol	MJ	481,123	55,714,857	54,483,822	64,633,383		
	- Wood Chip	MJ	0	0	1,833,090,674	1,673,817,136		
	- Rice Husk	MJ	0	0	34,276,740	30,679,676		
	- Palm Oil	MJ	0	0	0	0		
	- Biochar	MJ	0	0	600,310	48,193,253		
	Electricity and steam purchased for consumption		MJ	5,172,091,238	4,963,306,969	5,217,906,697	5,064,064,027	
	- Electricity consumption	MJ	1,094,363,280	961,598,614	1,163,983,325	1,125,788,020		
	- Steam consumption	MJ	77,723,078	30,613,270	125,731,713	158,280,007		
	Self-generated electricity from renewable sources		MJ	446	44,311	394,318	536,188	
	- Solar energy	MJ	498	442,337	392,535	536,189		
	Electricity sold from renewable sources		MJ	30,985,614	35,977,518	170,439,396	153,483,100	
	Steam sold from non-renewable sources		MJ	0	0	0	363,949	
	Water Intensity (Beverage) ⁽¹⁾		MJ/L	214.48	204.33	341.48	344.97	
	- Energy Intensity (Distillery) ⁽¹⁾	MJ/L	565.50	558.00	701.08	689.22		
	- Energy Intensity (Beverage)	MJ/L	188.88	210.81	219.52	212.62		
	- Energy Intensity (Oath)	MJ/L	119.65	111.48	130.05	137.76		
	- Energy Intensity (Bermiak)	MJ/L	50.18	43.18	41.83	35.19		
	Energy Intensity (Beverage) - Thailand ⁽²⁾		MJ/L	217.65	211.17	317.70	313.17	
	- Energy Intensity (Grand Royal Group) ⁽²⁾	MJ/L	N/A	N/A	N/A	N/A		
	- Energy Intensity (Over House)	MJ/L	N/A	N/A	757.44	855.71		
- Energy Intensity (Food)	MJ/kg	8.86	8.63	8.69	8.64			
GR300-3	Water Withdrawal ⁽³⁾		Megaliters	24,642	18,816	24,018	24,844	
	- Surface water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	18,827	15,128	19,233	19,173	
	- Surface water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	0	0	0	734	
	- Total surface water withdrawn		Megaliters	18,827	15,128	19,233	19,904	
	- Ground water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	3,892	3,435	4,249	4,893	
	- Ground water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	0	0	0	0	
	- Total ground water withdrawn		Megaliters	3,892	3,435	4,249	4,893	
	- Seawater (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	0	0	0	0	
	- Seawater (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	0	0	0	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	0	0	0	
	- Total produced water withdrawn		Megaliters	0	0	0	0	
	- Third-party water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	2,123	1,300	1,485	2,130	
	- Third-party water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	18,827	1,300	1,341	163	
	- Total third-party water withdrawn		Megaliters	2,123	1,300	1,485	2,293	
	- Total volume of water withdrawn in water stressed areas		Megaliters	N/A	N/A	32,724	13,249	
	- Surface water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	6,639	8,689	
	- Surface water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	0	0	0	0	
- Ground water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	2,640	8,888		
- Ground water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	2,640	3,393		
- Total ground water withdrawn		Megaliters	N/A	N/A	2,640	3,393		
- Seawater (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	0	0		
- Seawater (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	0	0		
- Total seawater withdrawn		Megaliters	N/A	N/A	0	0		
- Produced water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	0	0		
- Produced water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	0	0		
- Total produced water withdrawn		Megaliters	N/A	N/A	0	0		
- Third-party water (Freshwater < 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	443	1,017		
- Third-party water (Other water > 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	443	1,017		
- Total third-party water withdrawn		Megaliters	N/A	N/A	443	1,017		
- Third-party water that is surface water		Megaliters	N/A	N/A	443	1,017		
- Third-party water that is ground water		Megaliters	N/A	N/A	0	0		
- Third-party water that is seawater		Megaliters	N/A	N/A	0	0		
- Third-party water that is produced water		Megaliters	N/A	N/A	0	0		
GR300-4	Water Discharge ⁽³⁾		Megaliters	12,534	448	15,848	12,196	
	- Surface water		Megaliters	N/A	N/A	6,313	6,292	
	- Ground water		Megaliters	N/A	N/A	0	0	
	- Seawater		Megaliters	N/A	N/A	21	33	
	- Third-party water		Megaliters	N/A	N/A	2,707	2,642	
	- Total volume of freshwater discharge (< 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	1,998	2,242	
	- Total volume of freshwater discharge (> 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	7,338	7,948	
	- Total volume of freshwater discharge in water stressed areas (< 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	2,689	1,263	
	- Total volume of freshwater discharge in water stressed areas (> 1000 mg/L, Total Dissolved Solids)		Megaliters	N/A	N/A	3,649	4,913	
	Water Consumption ⁽⁴⁾		Megaliters	N/A	N/A	15,848	16,848	
	- Total water consumption		Megaliters	12,137	16,388	15,848	16,848	
	- Total water consumption in water stressed areas		Megaliters	N/A	N/A	6,435	7,048	
	- Total water consumption in water stressed areas ⁽⁵⁾ (1 indicates recycling change)		Megaliters	N/A	N/A	189	94	
	Water Intensity ⁽⁶⁾		MJ/L	4.91	5.62	4.68	5.98	
	- Water Intensity (Distillery)	MJ/L	9.89	7.20	7.68	8.79		
	- Water Intensity (Beverage)	MJ/L	1.46	2.07	2.53	2.64		
	- Water Intensity (Oath)	MJ/L	3.62	2.92	2.69	1.95		
	- Water Intensity (Bermiak)	MJ/L	3.41	3.17	3.57	2.90		
	Water Intensity (Beverage) - Thailand ⁽²⁾		MJ/L	4.61	5.62	3.93	3.78	
- Water Intensity (Grand Royal Group)	MJ/L	N/A	N/A	11.42	10.43			
- Water Intensity (Over House)	MJ/L	N/A	N/A	15.19	10.43			
- Water Intensity (Food)	MJ/kg	9.36	9.22	9.31	9.38			
DRI	Water Consumption Related Data		Megaliters	2,123	1,300	1,485	2,293	
	- Withdrawal: Surface water (lakes, rivers, etc.)		Megaliters	18,827	13,828	17,748	18,881	
	- Withdrawal: Groundwater		Megaliters	3,892	3,435	4,249	4,893	
	- Discharge: Surface water and groundwater returned to the source of extraction at similar or higher quality as raw water extracted (based on TOC content per ISO 303-3 & GR 300-4)		Megaliters	3,130	812	4,946	3,080	
	Direct (Scope 1) GHG emissions ⁽⁷⁾		Metric tons CO ₂ e	1,144,905	1,053,716	1,371,293	1,331,748	
	Onsite (Scope 1) GHG emissions		Metric tons CO ₂ e	90,167	92,881	92,449	88,899	
	- Offsite (Scope 1) GHG emissions		Metric tons CO ₂ e	1,054,738	960,835	1,278,844	1,242,849	
	GR300-2 Energy indirect (Scope 2) GHG emissions		Metric tons CO ₂ e	179,079	183,317	189,896	180,940	
	GR300-4 GHG emissions intensity ⁽⁸⁾		Metric tons CO ₂ e	1,080,145	990,119	1,114,345	1,062,857	
	- GHG emissions intensity (Beverage) ⁽⁸⁾		kg CO ₂ e/L	34.94	34.89	33.49	33.48	
	- GHG emissions intensity (Distillery)	kg CO ₂ e/L	131.48	133.32	139.15	121.44		
	- GHG emissions intensity (Bermiak)	kg CO ₂ e/L	19.87	21.88	21.88	22.71		
	- GHG emissions intensity (Oath)	kg CO ₂ e/L	12.31	11.99	11.48	11.58		
	- GHG emissions intensity (Bermiak)	kg CO ₂ e/L	5.12	4.39	4.60	3.65		
	GHG emissions intensity (Beverage) - Thailand ⁽²⁾		kg CO ₂ e/L	34.86	34.64	34.11	34.14	
	- GHG emissions intensity (Grand Royal Group)	kg CO ₂ e/L	N/A	N/A	81.63	41.71		
	- GHG emissions intensity (Over House)	kg CO ₂ e/L	N/A	N/A	69.25	64.45		
	- GHG emissions intensity (Food)	kg CO ₂ e/kg	9.36	9.38	9.39	9.38		
	GR300-2	Waste by type and disposal method ⁽⁹⁾		Metric tons	N/A	318	185	168
- Hazardous waste		Metric tons	N/A	1	6	6		
- Recycling		Metric tons	N/A	173	93	55		
- Recovery, including energy recovery		Metric tons	N/A	31	50	44		
- Incineration (mass burn)		Metric tons	N/A	11	3	0		
- Landfill		Metric tons	N/A	102	18	34		
- Chemical treatment		Metric tons	N/A	0	3	26		
- Deep Well Injection		Metric tons	N/A	0	0	0		
- Total amount of non-hazardous waste		Metric tons	N/A	1,635	3,010	2,024		
- Recycling		Metric tons	N/A	121	1,950	2,006		
- Recovery		Metric tons	N/A	10,051	18,404	18,265		
- Composting		Metric tons	N/A	864	12,194	12,858		
- Recovery, including energy recovery		Metric tons	N/A	348	398	358		
- Incineration (mass burn)		Metric tons	N/A	87	38	33		
- Landfill		Metric tons	N/A	1,706	2,298	4,076		
- Chemical treatment		Metric tons	N/A	0	10	8		
DRI		Waste by type and total waste disposed		Metric tons	65,640	13,473	38,288	37,682
		- General waste		Metric tons	2,936	N/A	N/A	N/A
		- Hazardous waste	Metric tons	28	N/A	N/A	N/A	
	- By-product waste	Metric tons	46,322	N/A	N/A	N/A		
	- Valuable waste	Metric tons	15,520	N/A	N/A	N/A		
	- Total waste used/ recycled/sold		Metric tons	62,446	11,687	38,842	35,438	
	- Residual waste	Metric tons	3,194	1,786	9,446	4,144		
	Environmental Violation							
	- Number of violations of legal obligations/regulations		Numerical	0	0	0	0	
	- Amount of fines/penalties related to the above		Monetary units	0	0	0	0	
	- Compliance			100	100	100	100	
	- Environmental liability accrued at year end		Monetary units	0	0	0	0	
	- Damages			0	0	0	0	

NA: Not applicable
 1. In 2017 - 2018, Thabler's reporting of environmental performance was expanded to include the following operations:
 1.1 Environmental data from the food group in terms of food production facility located in Ban Buang, Chonburi.
 1.2 Environmental data in terms of non-alcoholic beverages from S.P.M. Food and Beverage Co., Ltd. (under Bermiak), discontinued as of 2019.
 1.3 Environmental data from ready-to-drink business units such as Thai Beverage Energy Co., Ltd., Thai Beverage Logistics Co., Ltd. and Thai Beverages Co., Ltd.
 2. From FY 2019, Thabler's reporting of environmental performance was expanded to include overseas operations in Myanmar (Grand Royal Group) and Scotland (Over House).
 3. In 2019, Thabler started reporting water and effluents in line with the reporting requirements of GRP 300-1. Historical data was re-categorised where possible to report as per new requirements.
 4. For 2017 - 2018, Thabler's water discharge was updated to include water based soft conditioner for agricultural application as third-party discharge.
 5. For 2017 - 2018, GRP 305-1 data was corrected to include fugitive emissions from wastewater treatment systems.
 6. In 2017, waste disposal was classified by types of waste generated, consisting of the following 4 types:
 6.1 General waste - disposed of by local authorities, such as the municipality or sub-district administrative organization.
 6.2 Hazardous waste - disposed of by legally licensed companies.
 6.3 By-product waste - handled by Feed Addition Co., Ltd. one of Thabler's subsidiaries to generate income for the Company.
 6.4 Valuable waste - sorted that it can be reused and recycled.
 7. From FY 2018, Thabler has reported waste by type and disposal method following reporting requirements of GRP 306-2.
 8. Thabler has defined water usage as having a significant water-related impact if the storage system is located in a water-stressed area.
 9. Energy intensity does not include consumption of renewable energy sources used to generate electricity that is sold to third-parties.
 10. In 2019 Thabler corrected previous reporting of biogenic emissions to include biogas and other renewable fuels consumption as per GRP 300-1. As such, historical emission intensities have been corrected.
 11. Total energy consumption within the organization, energy intensity (total), direct (scope 1) GHG emissions, and GHG intensity (total) have been corrected for FY2018 as an error in reporting of natural gas was identified.
 12. "Beverages - Thailand" refers to operations in Thailand only. "Beverage" refers to operations including overseas.
 13. Thabler has not identified any non-compliance with environmental laws and/or regulations in the previous four fiscal years of disclosures.