

2023 KAI ESG DATABOOK



KAI ESG Data (Environmental Performance)

Classification		Unit	2020	2021	2022	Remark	
GHG emission (Scope 1 & 2)	Scope 1	tCO2-eq	12,006	13,076	14,512		
	Scope 2	tCO2-eq	37,135	45,072	47,189		
	Total	tCO2-eq	49,141	58,148	61,701		
GHG intensity	Revenue	billion won	2,812	2,548	2,772		
	Scope 1	tCO2-eq/billion won	4.27	5.13	5.24	※ Data scope - 2020 : Head office - 2021~ : Head office, Sanchung, Gosung, Jongpo and leased sites (Seoul office and, KAEMS)	
GHG savings	Scope 2	tCO2-eq/billion won	8,697.62	8,782.77	9,013.78		
	Amount of GHG savings	tCO2-eq	0	119	0		
Performance of K-ETS*	Rate of GHG savings	%	-	0.2	-		
	Allocation	tCO2-eq	49,141	58,148	61,701		
GHG emission (Scope 3)	Emission	tCO2-eq	49,141	58,148	61,701		
		Upstream Transport & Logistics	tCO2-eq	-	-	138.092	
		Employee business trip	tCO2-eq	-	-	798.060	
		Employee commute	tCO2-eq	-	-	145.712	
	Total	tCO2-eq	-	-	187.827		
Energy consumption and savings	Energy consumption and savings	Electricity	kwh	79,646,054	98,111,366	102,718,446	
		LNG(natural gas)	ton	-	511.15	613.37	
		LNG(city gas)	천m³	3,499	3,805	3,701	
		Air fuel	kl	1,398.852	1,112.68	1,437.797	
		Gasoline	kl	110.228	138.025	139.458	
		Kerosene	kl	0.02	0	0.4	※ Data scope - 2020 : Head office - 2021~ : Head office, Sanchung, Gosung, Jongpo and leased sites (Seoul office and, KAEMS)
		Diesel	kl	220.153	122.2488	341.0861	
	Amount of energy savings	kwh	-	259,500	-		
Energy intensity	Revenue	billion won	2,812	2,548	2,772		
	Electricity	kwh/billion won	28,324	38,505	37,056		
	LNG(natural gas)	ton/billion won	-	0.20	0.22		
	LNG(city gas)	thousand of m³/billion won	1.24	1.49	1.34		
Water consumption	Water consumption	Municipal water	thousand of m³	432,312	431,208	473,964	※ Data scope - 2020 : Head office - 2021 : Head office and Sanchung - 2022 : Head office, Sanchung and Gosung
		Amount of water recycled and reused	thousand of m³	-	41,063	51,007	
	Rate of water recycled and reused	%	-	10	11		
Waste generation	Waste generation by type	Hazardous waste	ton	590.06	494.63	494.99	
		Non-hazardous waste	ton	1,684.84(2,500.27)	1,232.77(1,726.34)	1,143.71(1,867.89)	
	Total waste generation	ton	2,274.90(3,090.33)	1,727.40(2,220.97)	1,638.70(2,362.88)		
	Waste generation by treatment method	Recycled	ton	1,836.08(2,651.51)	1,227.53(1,721.10)	1,203.74(1,927.92)	※ Data scope - Head office for all periods
		Incineration	ton	200.19	249.2	291.29	
		Landfill	ton	30.78	62.21	44.1	
Others		ton	207.85	188.46	99.57		

Classification		Unit	2020	2021	2022	Remark	
Pollutant generation	Air pollutant emissions	Dust	ton	11.507	10.229	10.457	
		NO ₂	ton	2.905	4.387	4.457	
		SO ₂	ton	0	0.048	0.724	
	Wastewater generation		thousand of m³	63.27	53.7	61.5	
		BOD	ton	2.101	0.344	0.264	※ Data scope - Head office for all periods
	Water pollution substance emissions	COD	ton	0.987	0.575	*0.347	
		SS	ton	0.193	0.279	0.363	
		T-N	ton	0.121	0.436	0.325	
		T-P	ton	0.003	0.002	0.005	
Rate of eco-friendly vehicle	Vehicle for business use	For business use (long-term rental)	대	98	101	124	
		For business use (purchased)	대	46	52	55	
		Total	대	144	153	179	
	Eco-friendly vehicles (hybrid)	대	0	0	2		
		Eco-friendly vehicles (hydroelectric)	대	0	0	0	
	Total	대	0	0	2		
	Rate of eco-friendly vehicles	%	-	-	1.12		
Investment for environmental facility	Investment for environmental facility	thousand won	1,288,140	1,305,710	1,597,409	※ Data scope : Head office, Sanchung, Gosung, Jongpo and leased sites for all periods	
	Operation costs of environmental facility	million won	1,387	905	990	※ Data scope - Head office for all periods	
Environmental Costs	General administrative expenses	million won	1,171	1,691	1,929	※ Data scope : Head office, Sanchung, Gosung, Jongpo and leased sites for all periods	
	Amount of harmful chemical substances used	ton	271.08	213.94	204.76	※ Data scope - Head office for all periods	
Use of harmful chemical substances	Amount of chemical substances emissions	ton	27.95	26.99	26.98		
	Environmental accidents	numbers	0	0	0		
Industrial accidents	Serious accidents	numbers	0	0	0		
	Non-compliance with health & safety laws and regulations	numbers	0	2	0	※ Data scope : Head office, Sanchung, Gosung, Jongpo and leased sites for all periods	
	Rate of industrial accidents	%	0.14	0.18	0.16		
	ISO 14001	businesses	4	5	5		
Key certification status	Certification of environmental product declaration	numbers	0	0	0	※ Data scope : Head office, Sanchung, Gosung, Jongpo and leased sites for all periods	
	Certification for low carbon products	numbers	0	0	0		
	ISO 45001	businesses	4	5	5		

KAI ESG Data (Social Performance)

Classification		단위	2020	2021	2022	Remark	
Employee status	Number of total employees*	persons	5,065	5,048	5,119	*as of end of 2022, employee on leave of absence included	
	Gender	Male	persons	4,718	4,693	4,718	
		Female	persons	347	355	401	
	Age group	~29	persons	769	656	653	
		30-39	persons	1,503	1,512	1,509	
		40-49	persons	1,343	1,332	1,281	
	Level	50+	persons	1,450	1,548	1,676	
		Executive	persons	36	34	32	
		Manager	persons	250	265	270	
	Employment type	Others*	persons	4,779	4,749	4,817	* all employees not classified as executive and manager
		Non-fixed-term employees	persons	4,167	4,152	4,242	
	Diversity	Fixed-term employees	persons	898	896	877	
No. of employees with disabilities		persons	85	84	82	*as of end of 2022, employee on leave of absence included	
Rate of employees with disabilities		%	1.78	1.74	1.66		
New employment status	Number of new employee hires	persons	413	361	511		
	Gender	Male	persons	338	286	402	
		Female	persons	75	75	109	
	Age group	~29	persons	213	143	238	
		30-39	persons	119	90	124	
		40-49	persons	50	63	64	
	Level	50+	persons	31	65	85	
		Executive	persons	4	2	4	
		Manager	persons	-	2	2	
	Employment type	Others*	persons	409	357	505	
		Non-fixed-term employees	persons	226	146	230	
	Turnover status	Fixed-term employees	persons	187	215	281	
Number of employee turnover		persons	313	361	441		
Voluntary turnover		Male	persons	99	123	160	
		Female	persons	13	14	23	
		Total	persons	112	137	183	
Rate of voluntary turnover		%	2.24	2.70	3.60		
Non-voluntary turnover		Male	persons	165	174	218	
		Female	persons	36	50	40	
		Total	persons	201	224	258	

Classification		단위	2020	2021	2022	Remark	
Turnover status	Rate of non-voluntary turnover	%	4.02	4.42	5.07		
	Average length of service	years	13.86	14.02	13.86		
Employee training	Number of total trainees	persons	18,343	22,357	23,550		
	Total training expenses	million won	18.1	14.7	18.9		
	Total training hours	hours	107,344	156,008	134,399		
	Training hours per person	hours	21.6	31.0	26.5		
	Training expenses per person	thousand won	364.2	292.5	372.0		
	Training satisfaction index	points	4.30	4.44	4.47	* based on 5 points	
Parental leave	No. of employees who used parental leaves	Male	persons	126	166	131	
		Female	persons	8	10	9	
		Total	persons	134	176	140	
Childcare leave	No. of employees who used childcare leaves	Male	persons	34	24	46	
		Female	persons	9	9	10	
		Total	persons	43	33	56	
Labor union	Rate of return to work	%	93.02	100.00	98.08		
	No. of valid employees	persons	4,153	4,150	4,262		
	No. of labor union membership	persons	3,145	3,335	3,439		
	Rate of labor union membership	%	75.7	80.4	80.7		
	No. of labor-management council meetings	times	2	2	3		
Social contribution activity	No. of the employees participated in SC activities	persons	323	327	340		
	Total hours of SC activities	hours	1,655	1,611	1,885		
	Hours of the activities per person	hours	5.1	4.9	5.5		
	Employees fund raising for SC	million won	1,022	703	650		
	No. of beneficiaries of activities	persons	12,446	10,779	13,020		
Supplier status	Total suppliers	suppliers	75	78	79		
	Total amount of support	billion won	213.6	237.9	159.9		
	No. of technical support	cases	2,602	1,824	1,989		
	No. of suppliers participated in ESG consulting program	suppliers	-	-	10		
Information/cyber security	Information/cyber security accidents	cases	-	1	-		
	Legal/administrative fine or penalty caused by the accidents	won	n/a	n/a	n/a		
	No. of the accidents related to the customers' data leak	cases	-	-	-		
No. of the customers affected by data leak issue	customers	-	-	-			

KAI ESG Data

(Governance Performance)

Classification		단위	2020	2021	2022	Remark	
Anti-corruption & ethics management	No. of employees completed the ethics and compliance training courses	persons	11,582	13,308	19,929	* trainings for partner companies are excluded (43 companies at '21, 50 companies at '22)	
	Rate of employees participated in the anti-corruption & compliance/ethics trainings	%	99	95.5	97		
	No. of legal actions for anti-competitive behaviors	cases	1	1	1		
	Monitoring status	ISO 37001	attained	attained	attained		
Cyber whistle-blowing status	No. of cyber whistle-blowing reported	cases	27	39	39		
	No. of cyber whistle-blowing measured	cases	27	39	39		
	Rate of cyber whistle-blowing measured	%	100	100	100		
Board of Directors	No. of BODs held	회	9	10	12		
	No. of total agendas	건	46	68	53		
	Performance of BOD	Portion of the independent directors	%	80	80	75	
		Portion of the female directors	%	-	-	-	
	Average participation rate	%	100	100	100		
Total amount of remuneration	Executive director (excluding independent directors and members of the Audit Committee)	million won	619	631	1,276	* the former CEO's severance pay is included in 2022 (due to the termination of term)	
	Independent directors (excluding members of the Audit Committee)	million won	-	-	-	* all members of the Audit Committee are the independent directors	
	Members of the Audit Committee	million won	250	250	253		