

# Environmental Preservation: Environmental Accounting and Environmental Impact Data by Facility

## Environmental Accounting

			(¥100 million)					
Environmental Preservation Costs			Capital Investment			Costs		
Category	Main Activity	(FY)	2019	2020	Difference	2019	2020	Difference
Cost by business area	Pollution prevention	Investing in and maintaining energy-saving facilities	7.9	12.2	4.3	41.0	43.8	2.8
	Investing in and maintaining air and water pollution prevention facilities	Resource recycling	87.5	11.7	(75.8)	21.5	39.4	17.9
	Global environment preservation	Recycling and reducing industrial waste	4.3	3.4	(0.9)	36.5	34.6	(1.9)
Upstream/downstream costs	Container/packaging recycling, green purchasing		0.2	0.0	(0.2)	4.5	4.8	0.3
Costs of management activities	Acquiring, running, and maintaining environmental management systems		0.4	0.1	(0.3)	5.7	5.8	0.1
Research and development costs	R&D of environmentally friendly products and technologies		0.0	0.0	0.0	2.7	2.9	0.2
Costs of social activities	Greening and beautifying offices/facilities and their surroundings		0.3	0.0	(0.3)	2.1	2.4	0.3
Costs of cleaning up environment damage	Payment of environment-related levy		0.0	0.0	0.0	1.5	1.4	(0.1)
<b>Total</b>			<b>100.6</b>	<b>27.4</b>	<b>(73.2)</b>	<b>115.5</b>	<b>135.1</b>	<b>19.6</b>

			(¥100 million)		
Category	Main Activity	(FY)	2019	2020	Difference
Income effect	Proceeds from sales of marketable waste products		28.8	45.0	16.2
Savings effect	Savings achieved through resource recycling and energy conservation		63.1	58.2	(4.9)

## Environmental Impact Data by Facility

Encompassing domestic factories and laboratories and key domestic and overseas consolidated subsidiaries with factories. Details are on page 10.

Fiscal 2019 and 2020 Environmental Impact Data by Facility	Emissions into the Atmosphere						Emissions into Water					
	SOx*1 Emissions		NOx*2 Emissions		Dust Emissions		COD*3 Emissions		Total Phosphorus Emissions		Total Nitrogen Emissions	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
<b>In Japan</b>												
Chiba Petrochemical Factory	0.5	0.6	32	30	0.2	0.2	13	12	0.1	0.1	3.6	3.6
Sakai Factory / Osaka Research & Development Center	0.0	0.0	1.3	1.4	0.1	0.1	1.0	1.0	0.0	0.1	0.7	0.8
Ube Chemical Factory	1,523	1,572	3,546	3,331	101	118	422	415	5.6	5.1	392	359
Ube-Fujimagari Factory	541	451	395	295	2.7	1.3	247	205	4.9	4.3	63	51
Strategic Core Technology Research Laboratory / Pharmaceuticals Research Laboratory	—	—	—	—	—	—	0.1	0.2	0.1	0.1	0.2	0.2
Frontier Technology Research Laboratory	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0
Ube Cement Factory	57	41	1,448	1,246	54	40	8.2	7.9	—	—	—	—
Isa Cement Factory	370	355	7,149	7,080	169	171	0.0	0.1	—	—	—	—
Kanda Cement Factory	3.3	5.0	2,498	2,437	23	46	2.9	2.4	0.1	0.1	1.0	0.4
Technical Development Center	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Okinoyama Coal Center	—	—	—	—	—	—	—	—	—	—	—	—
<b>Subtotal (UBE)</b>	<b>2,495</b>	<b>2,425</b>	<b>15,069</b>	<b>14,420</b>	<b>350</b>	<b>377</b>	<b>694</b>	<b>644</b>	<b>11</b>	<b>10</b>	<b>461</b>	<b>415</b>
UBE Film, Ltd.	—	—	—	—	—	—	—	—	—	—	—	—
Meiwa Plastic Industries, Ltd.	—	—	—	—	—	—	0.0	0.0	0.0	0.0	0.0	0.0
Ems-Ube, Ltd.	0.0	0.0	1.9	2.5	0.0	0.0	5.9	5.6	0.0	0.0	1.8	1.3
UBE-MC Hydrogen Peroxide Limited	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.4	0.3
UBE EXSYMO CO., LTD.	0.0	0.0	0.4	0.5	0.1	0.1	1.2	3.5	—	—	—	—
UBE Material Industries, Ltd.	144	152	929	781	13	8.4	0.9	0.6	0.0	0.0	1.3	1.0
UBE Construction Materials Sales Co., Ltd.	—	—	—	—	—	—	—	—	—	—	—	—
UBE Machinery Corporation, Ltd.	0.1	0.1	—	—	—	—	1.1	1.4	0.2	0.3	1.7	2.1
UBE Steel Co., Ltd.	13	12	71	70	7.9	6.9	1.9	2.3	—	—	—	—
Fukushima, Ltd.	—	—	—	—	—	—	—	—	—	—	—	—
<b>Subtotal (Group companies)</b>	<b>157</b>	<b>164</b>	<b>1,002</b>	<b>854</b>	<b>21</b>	<b>15</b>	<b>11</b>	<b>14</b>	<b>0.2</b>	<b>0.3</b>	<b>5.2</b>	<b>4.7</b>
<b>Total (UBE Group)</b>	<b>2,652</b>	<b>2,589</b>	<b>16,071</b>	<b>15,274</b>	<b>371</b>	<b>392</b>	<b>705</b>	<b>658</b>	<b>11</b>	<b>10</b>	<b>466</b>	<b>420</b>
<b>Overseas</b>												
UBE Corporation Europe, S.A. Unipersonal (Spain)	79	80	859	497	12	9.0	129	277	0.7	1.4	62	170
UBE Chemicals (Asia) Public Company Limited (Thailand)	8.3	4.8	40	40	4.4	5.1	64	42	0.6	1.3	8.1	8.6
THAI SYNTHETIC RUBBERS COMPANY LIMITED (Thailand)	0.0	0.0	0.0	0.0	0.7	0.6	26	19	0.0	0.0	0.0	0.0
UBE Fine Chemicals (Asia) Co., Ltd. (Thailand)	0.0	0.0	0.0	4.6	0.0	0.1	—	—	—	—	—	—
<b>Total</b>	<b>87</b>	<b>85</b>	<b>899</b>	<b>542</b>	<b>17</b>	<b>15</b>	<b>219</b>	<b>338</b>	<b>1.3</b>	<b>2.7</b>	<b>70</b>	<b>179</b>

The UBE Group has installed deodorization and other facilities and constructed its own odor monitoring systems in the Ube area. The Group is also cooperating with government bodies to further control odors.

### Glossary

\*1 Sulfur oxides (SOx) originate in the sulfur (S) component of fuels. Boilers are our main source of these oxides.

\*2 Nitrogen oxides (NOx) stem from fuel combustion, primarily from Group boilers and cement kilns.

\*3 Chemical Oxygen Demand (COD): This is an indicator of water pollution by organic substances and represents the amount of oxygen consumed in the chemical oxidation of organic matter.