

reference values selected scenario type: RM-5 rad	target year 2030		target year 2050		projection emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Afghanistan		309%	85%	294%	78%	10.76	0.28
Albania		-54%	-35%	-87%	-81%	4.86	1.69
Algeria		44%	-16%	-77%	-87%	169.83	3.94
Angola		73%	-18%	-21%	-63%	28.85	0.91
Anguilla		187%	-27%	-26%	-81%	0.03	1.94
Antigua and Barbuda		64%	3%	-81%	-88%	0.65	6.66
Argentina		6%	-38%	-85%	-91%	208.42	4.65
Armenia		-83%	-19%	-96%	-80%	5.94	2.01
Aruba		87%	12%	-82%	-89%	0.99	9.36
Australia		-17%	-44%	-94%	-96%	415.29	16.48
Austria		-35%	-46%	-93%	-94%	72.43	8.09
Azerbaijan		-64%	-17%	-94%	-86%	35.56	3.54
Bahamas		15%	0%	-88%	-90%	3.11	7.98
Bahrain		58%	-34%	-89%	-95%	34.17	20.82
Bangladesh		417%	22%	219%	-24%	95.41	0.59
Barbados		143%	-19%	-79%	-93%	3.38	11.78
Belarus		-66%	-44%	-96%	-94%	66.01	6.98
Belgium		-48%	-48%	-95%	-95%	107.07	9.28
Belize		57%	17%	-40%	-56%	0.45	1.16
Benin		1259%	10%	676%	-37%	7.74	0.66
Bermuda		-25%	-30%	-92%	-92%	0.44	7.10
Bhutan		361%	-27%	14%	-82%	1.59	2.08
Bolivia		117%	-4%	-46%	-76%	23.42	2.03
Bosnia and Herzegovina		-37%	-31%	-94%	-93%	27.44	8.31
Botswana		58%	27%	-72%	-78%	7.62	3.31
Brazil		31%	-33%	-71%	-85%	502.65	2.38
British Virgin Islands		234%	23%	-56%	-84%	0.15	5.13
Brunei		15%	-47%	-91%	-96%	7.04	16.24
Bulgaria		-69%	-48%	-96%	-94%	44.53	6.36
Burkina Faso		1087%	140%	1298%	183%	3.81	0.19
Burundi		640%	586%	1311%	1207%	0.33	0.03
Cambodia		1880%	61%	1009%	-10%	11.14	0.68
Cameroon		130%	2%	46%	-35%	14.56	0.56
Canada		-27%	-41%	-95%	-96%	597.67	15.98
Cape Verde		1226%	95%	245%	-49%	1.06	1.93
Cayman Islands		94%	1%	-80%	-90%	0.51	7.87
Central African Republic		419%	134%	674%	249%	0.47	0.10
Chad		747%	444%	1430%	883%	0.68	0.04
Chile		60%	-27%	-78%	-90%	92.16	4.86
China		167%	-30%	-72%	-93%	11,403.32	7.95
Colombia		7%	-16%	-71%	-77%	90.92	1.81
Comoros		345%	62%	355%	66%	0.21	0.25
Congo		92%	-15%	-35%	-71%	7.25	1.35
Cook Islands		-40%	-56%	-87%	-90%	0.04	2.46
Costa Rica		90%	-24%	-48%	-79%	9.01	1.79
Côte d'Ivoire		262%	44%	131%	-8%	14.40	0.56
Croatia		-55%	-47%	-94%	-93%	19.72	4.77
Cuba		-55%	-51%	-90%	-89%	27.82	2.45
Curaçao		-15%	-25%	-95%	-96%	8.49	51.96
Cyprus		-5%	-46%	-89%	-94%	7.64	6.37
Czechia		-62%	-48%	-97%	-95%	111.64	10.44
Democratic Republic of the Congo		245%	289%	548%	631%	2.84	0.03
Denmark		-66%	-63%	-96%	-95%	32.04	5.55
Djibouti		-36%	-38%	-75%	-75%	1.07	1.10
Dominica		145%	-2%	-33%	-73%	0.13	1.81
Dominican Republic		89%	-29%	-58%	-84%	25.34	2.36
Ecuador		52%	-30%	-68%	-85%	44.95	2.59
Egypt		66%	-29%	-64%	-85%	254.04	2.53
El Salvador		95%	-24%	-29%	-72%	8.00	1.24
Equatorial Guinea		1929%	-55%	344%	-90%	3.32	2.45
Eritrea		321%	91%	330%	95%	0.88	0.25

reference values selected scenariotype: RM-5 rad	target year 2030		target year 2050		projection emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Estonia		-64%	-37%	-97%	-96%	24.99	18.85
Eswatini		37%	-60%	-46%	-84%	1.26	1.09
Ethiopia		854%	232%	1120%	325%	17.26	0.15
Falkland Islands		73%	-3%	-85%	-92%	0.04	12.00
Faroese		360%	263%	740%	564%	0.00	0.04
Fiji		-18%	-30%	-74%	-78%	1.35	1.52
Finland		-52%	-58%	-95%	-96%	48.87	8.83
France and Monaco		-52%	-51%	-94%	-93%	322.88	4.95
French Guiana		25%	-13%	-74%	-82%	0.78	2.69
French Polynesia		-58%	-60%	-90%	-90%	0.59	2.11
Gabon		-38%	-36%	-88%	-88%	6.57	3.03
Georgia		-81%	6%	-96%	-79%	11.19	2.80
Germany		-60%	-50%	-96%	-95%	730.08	8.74
Ghana		367%	28%	161%	-28%	20.63	0.68
Gibraltar		163%	-20%	-82%	-94%	0.68	20.27
Greece		-47%	-53%	-94%	-95%	74.37	7.10
Greenland		9588%	-55%	819%	-96%	0.53	9.36
Grenada		131%	21%	-52%	-75%	0.29	2.59
Guadeloupe		54%	13%	-81%	-86%	2.37	5.94
Guatemala		252%	17%	30%	-57%	21.07	1.20
Guinea		199%	130%	212%	141%	3.08	0.24
Guinea-Bissau		144%	18%	157%	25%	0.45	0.24
Guyana		246%	49%	-26%	-68%	1.96	2.51
Haiti		193%	43%	160%	26%	3.69	0.33
Honduras		192%	-14%	17%	-66%	10.53	1.08
Hong Kong		-25%	-40%	-91%	-93%	45.12	6.07
Hungary		-58%	-41%	-95%	-93%	53.56	5.53
Iceland		-1%	-37%	-92%	-95%	4.19	12.36
India		175%	-7%	-29%	-76%	2,693.19	1.97
Indonesia		112%	-17%	-48%	-80%	572.68	2.12
Iran		105%	-27%	-80%	-93%	747.59	9.02
Iraq		59%	-12%	-78%	-88%	193.21	4.92
Ireland		-38%	-50%	-93%	-95%	36.43	7.46
Israel and Palestine, State of		9%	-47%	-85%	-93%	67.44	5.00
Italy, San Marino and the Holy See		-55%	-55%	-94%	-94%	341.32	5.63
Jamaica		-37%	-36%	-87%	-87%	8.02	2.72
Japan		-42%	-44%	-95%	-95%	1,188.26	9.37
Jordan		51%	-25%	-68%	-84%	26.00	2.57
Kazakhstan		-31%	-26%	-95%	-95%	317.66	17.12
Kenya		179%	37%	117%	6%	21.53	0.41
Kiribati		59%	-38%	54%	-40%	0.03	0.28
Kuwait		73%	-35%	-89%	-96%	102.36	24.33
Kyrgyzstan		-73%	-2%	-92%	-71%	10.38	1.62
Laos		1243%	68%	800%	13%	3.71	0.52
Latvia		-78%	-50%	-97%	-92%	7.77	4.07
Lebanon		148%	-28%	-60%	-88%	25.60	3.73
Lesotho		549%	22%	462%	5%	0.73	0.34
Liberia		210%	124%	212%	126%	1.28	0.26
Libya		-12%	-47%	-91%	-95%	58.02	8.56
Lithuania		-76%	-39%	-97%	-92%	14.81	5.37
Luxembourg		-52%	-50%	-96%	-96%	10.22	16.61
Macao		-18%	-32%	-80%	-83%	1.32	2.07
Madagascar		714%	159%	904%	219%	4.55	0.17
Malawi		590%	115%	953%	228%	1.71	0.09
Malaysia		156%	-32%	-74%	-93%	263.84	8.26
Maldives		743%	-37%	142%	-82%	0.90	1.69
Mali		668%	410%	1215%	773%	1.13	0.06
Malta		-63%	-67%	-94%	-94%	1.51	3.43
Martinique		48%	5%	-83%	-88%	2.48	6.60
Mauritania		245%	15%	82%	-39%	3.33	0.74
Mauritius		120%	-29%	-63%	-88%	4.50	3.55

reference values selected scenario type: RM-5 rad	target year 2030		target year 2050		projection emissions 2019 in Mill. t	per capita emissions 2019 in t
	vs. reference year	1990	2010	1990		
Mexico	-1%	-40%	-84%	-91%	495.57	3.88
Moldova	-83%	-36%	-96%	-85%	8.85	2.19
Mongolia	-14%	-21%	-90%	-91%	20.07	6.22
Morocco	91%	-18%	-50%	-79%	70.17	1.92
Mozambique	676%	149%	580%	118%	10.15	0.33
Myanmar/Burma	410%	191%	203%	73%	33.54	0.62
Namibia	81%	-10%	-51%	-76%	4.57	1.83
Nepal	763%	91%	613%	58%	10.59	0.37
Netherlands	-45%	-52%	-95%	-95%	158.42	9.27
New Caledonia	156%	-16%	-84%	-95%	7.54	26.65
New Zealand	-13%	-39%	-91%	-94%	37.07	7.75
Nicaragua	118%	-9%	-5%	-60%	6.31	0.96
Niger	363%	183%	590%	321%	2.33	0.10
Nigeria	15%	-5%	-27%	-40%	113.69	0.57
North Korea	-84%	-61%	-94%	-86%	32.45	1.26
North Macedonia	-57%	-48%	-93%	-92%	8.25	3.96
Norway	-22%	-38%	-93%	-94%	51.84	9.64
Oman	211%	-8%	-77%	-93%	87.53	17.59
Pakistan	112%	-10%	-6%	-60%	201.51	0.93
Palau	-67%	-66%	-98%	-98%	1.31	72.59
Panama	159%	-25%	-49%	-85%	12.03	2.83
Papua New Guinea	40%	5%	2%	-24%	3.99	0.45
Paraguay	123%	-3%	-11%	-61%	7.70	1.09
Peru	67%	-22%	-53%	-78%	57.19	1.76
Philippines	120%	9%	-28%	-64%	151.87	1.40
Poland	-48%	-42%	-95%	-94%	342.61	9.04
Portugal	-31%	-43%	-91%	-93%	53.18	5.20
Puerto Rico	3%	16%	-60%	-55%	3.26	1.11
Qatar	239%	-17%	-80%	-95%	104.60	36.93
Réunion	76%	-40%	-70%	-90%	3.06	3.44
Romania	-75%	-43%	-96%	-91%	81.37	4.20
Russia	-58%	-40%	-96%	-95%	1,779.97	12.20
Rwanda	305%	169%	522%	312%	1.14	0.09
Saint Helena, Ascension and Tristan da	12%	-7%	-79%	-82%	0.02	3.01
Saint Kitts and Nevis	309%	-1%	-42%	-86%	0.25	4.66
Saint Lucia	200%	6%	-26%	-74%	0.38	2.06
Saint Pierre and Miquelon	-70%	27%	-98%	-90%	0.08	13.88
Saint Vincent and the Grenadines	200%	6%	-13%	-69%	0.19	1.67
Samoa	-24%	-17%	-58%	-54%	0.14	0.69
São Tomé and Príncipe	133%	-18%	26%	-56%	0.15	0.71
Saudi Arabia	101%	-27%	-86%	-95%	628.82	18.35
Senegal	232%	13%	86%	-37%	10.99	0.67
Serbia and Montenegro	-49%	-44%	-94%	-93%	59.25	6.30
Seychelles	96%	-39%	-82%	-95%	1.01	10.30
Sierra Leone	135%	137%	175%	178%	1.49	0.19
Singapore	2%	-37%	-91%	-94%	57.43	9.89
Slovakia	-64%	-44%	-96%	-94%	39.12	7.17
Slovenia	-47%	-51%	-94%	-95%	15.63	7.52
Solomon Islands	16%	-16%	31%	-5%	0.14	0.20
Somalia	241%	186%	473%	381%	0.97	0.06
South Africa	-15%	-43%	-91%	-94%	474.51	8.10
South Korea	47%	-34%	-88%	-95%	714.26	13.94
Spain and Andorra	-31%	-45%	-92%	-93%	282.82	6.04
Sri Lanka	276%	15%	45%	-56%	24.14	1.13
Sudan and South Sudan	230%	10%	159%	-14%	21.67	0.40
Suriname	46%	-23%	-77%	-88%	2.30	3.95
Sweden	-56%	-52%	-94%	-93%	44.41	4.42
Switzerland and Liechtenstein	-48%	-50%	-93%	-93%	40.74	4.72
Syria	-45%	-71%	-84%	-92%	29.10	1.70
Taiwan	30%	-40%	-89%	-95%	290.21	12.21
Tajikistan	-64%	42%	-79%	-19%	6.09	0.65

reference values selected scenario type: RM-5 rad	target year 2030		target year 2050		projection emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Tanzania		590%	102%	626%	113%	13.80	0.24
Thailand		77%	-33%	-73%	-90%	285.68	4.10
The Gambia		314%	30%	315%	31%	0.62	0.26
Timor-Leste		142%	24%	160%	34%	0.29	0.23
Togo		242%	3%	181%	-15%	3.02	0.37
Tonga		26%	-54%	-53%	-83%	0.13	1.20
Trinidad and Tobago		57%	-49%	-90%	-97%	35.95	25.77
Tunisia		35%	-29%	-74%	-86%	33.82	2.89
Turkey		63%	-21%	-78%	-90%	428.38	5.13
Turkmenistan		5%	-22%	-92%	-94%	86.43	14.55
Turks and Caicos Islands		1307%	-7%	103%	-87%	0.17	4.49
Uganda		1197%	121%	1683%	204%	5.64	0.13
Ukraine		-86%	-65%	-98%	-95%	188.97	4.30
United Arab Emirates		110%	-30%	-86%	-95%	216.65	22.17
United Kingdom		-65%	-59%	-95%	-95%	363.06	5.38
United States		-42%	-47%	-96%	-96%	5,334.43	16.21
Uruguay		10%	-33%	-73%	-83%	7.08	2.05
Uzbekistan		-52%	-44%	-91%	-90%	102.01	3.09
Vanuatu		-37%	-32%	-39%	-34%	0.08	0.28
Venezuela		-35%	-65%	-90%	-95%	115.40	4.05
Vietnam		713%	6%	58%	-79%	278.85	2.89
Western Sahara		59%	-14%	9%	-41%	0.29	0.50
Yemen		45%	-63%	13%	-71%	11.95	0.41
Zambia		70%	125%	60%	111%	5.31	0.30
Zimbabwe		-47%	-9%	-76%	-59%	13.40	0.91
EU28		-57%	-51%	-95%	-94%	3,388.14	6.61
EU27		-55%	-50%	-95%	-94%	3,023.61	6.79
sub sum						43,476.37	
EU27						-3,023.61	
EU28						-3,388.14	
sum						37,064.62	
base data: projection global 2019*						37,064.62	
difference						0.00	

* excl. FOLU resp. npLUC and international shipping and aviation (ISA)

reference values scenario: RM-5 rad sorted by 'emissions 2019'	target year 2030		target year 2050		projection emissions 2019 in Mill. t	per capita emissions 2019 in t	share in the global emissions in 2019	share cumulative emissions without EU
	vs. reference year	1990	2010	1990				
China	167%	-30%	-72%	-93%	11,403	8.0	30.8%	31%
United States	-42%	-47%	-96%	-96%	5,334	16.2	14.4%	45%
EU28	-57%	-51%	-95%	-94%	3,388	6.6	9.1%	45%
EU27	-55%	-50%	-95%	-94%	3,024	6.8	8.2%	45%
India	175%	-7%	-29%	-76%	2,693	2.0	7.3%	52%
Russia	-58%	-40%	-96%	-95%	1,780	12.2	4.8%	57%
Japan	-42%	-44%	-95%	-95%	1,188	9.4	3.2%	60%
Iran	105%	-27%	-80%	-93%	748	9.0	2.0%	62%
Germany	-60%	-50%	-96%	-95%	730	8.7	2.0%	64%
South Korea	47%	-34%	-88%	-95%	714	13.9	1.9%	66%
Saudi Arabia	101%	-27%	-86%	-95%	629	18.3	1.7%	68%
Canada	-27%	-41%	-95%	-96%	598	16.0	1.6%	70%
Indonesia	112%	-17%	-48%	-80%	573	2.1	1.5%	71%
Brazil	31%	-33%	-71%	-85%	503	2.4	1.4%	73%
Mexico	-1%	-40%	-84%	-91%	496	3.9	1.3%	74%
South Africa	-15%	-43%	-91%	-94%	475	8.1	1.3%	75%
Turkey	63%	-21%	-78%	-90%	428	5.1	1.2%	76%
Australia	-17%	-44%	-94%	-96%	415	16.5	1.1%	77%
United Kingdom	-65%	-59%	-95%	-95%	363	5.4	1.0%	78%
Poland	-48%	-42%	-95%	-94%	343	9.0	0.9%	79%
Italy, San Marino and the Holy S	-55%	-55%	-94%	-94%	341	5.6	0.9%	80%

sum emissions 2020 - 2100 - national budgets -	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
in Mill. t							RM 2 - 6	budget
Afghanistan	432.53	258.67	306.24	264.16	355.70	343.30	305.6	28
Albania	69.54	60.54	62.93	60.77	65.52	64.90	62.9	13
Algeria	1,922.42	1,887.72	1,894.50	1,886.68	1,905.33	1,903.90	1,895.6	11
Angola	542.23	417.19	451.06	420.87	486.76	477.97	450.8	16
Anguilla	0.39	0.35	0.36	0.35	0.37	0.37	0.4	13
Antigua and Barbuda	6.73	6.93	6.86	6.91	6.81	6.83	6.9	11
Argentina	2,288.39	2,284.97	2,282.54	2,282.42	2,284.70	2,285.75	2,284.1	11
Armenia	80.06	71.80	73.97	71.99	76.35	75.80	74.0	12
Aruba	9.98	10.48	10.33	10.45	10.19	10.23	10.3	10
Australia	3,996.40	4,300.82	4,210.50	4,285.66	4,126.38	4,150.78	4,214.8	10
Austria	737.09	768.02	758.35	766.09	749.98	752.64	759.0	10
Azerbaijan	411.59	399.30	402.10	399.25	405.80	405.14	402.3	11
Bahamas	31.67	32.97	32.56	32.89	32.21	32.32	32.6	10
Bahrain	325.00	352.15	344.14	350.83	336.62	338.78	344.5	10
Bangladesh	2,301.98	1,607.52	1,796.69	1,628.78	1,994.56	1,945.36	1,794.6	19
Barbados	33.25	35.34	34.71	35.22	34.14	34.31	34.7	10
Belarus	683.15	705.06	697.97	703.50	692.12	694.10	698.6	11
Belgium	1,074.72	1,128.70	1,112.15	1,125.59	1,097.42	1,101.95	1,113.2	10
Belize	7.56	6.12	6.51	6.16	6.92	6.82	6.5	14
Benin	174.20	124.80	138.24	126.30	152.32	148.83	138.1	18
Bermuda	4.58	4.74	4.69	4.73	4.65	4.66	4.7	11
Bhutan	21.15	19.08	19.62	19.12	20.22	20.08	19.6	12
Bolivia	314.14	282.24	290.62	282.98	299.82	297.68	290.7	12
Bosnia and Herzegovina	278.45	290.61	286.82	289.86	283.52	284.57	287.1	10
Botswana	89.57	86.21	87.01	86.22	88.01	87.81	87.1	11
Brazil	6,425.81	5,916.65	6,048.34	5,926.71	6,195.88	6,162.50	6,050.0	12
British Virgin Islands	1.67	1.68	1.67	1.68	1.67	1.67	1.7	11
Brunei	67.79	72.92	71.39	72.66	69.98	70.39	71.5	10
Bulgaria	466.35	478.11	474.16	477.16	471.07	472.19	474.5	11
Burkina Faso	213.46	118.59	144.58	121.62	171.56	164.78	144.2	38
Burundi	104.48	48.77	64.06	50.57	79.89	75.90	63.8	193
Cambodia	246.33	177.65	196.33	179.73	215.91	211.05	196.1	18
Cameroon	360.09	249.28	279.47	252.68	311.04	303.19	279.1	19
Canada	5,761.48	6,194.03	6,065.58	6,172.39	5,946.08	5,980.80	6,071.8	10
Cape Verde	14.50	12.92	13.34	12.96	13.80	13.69	13.3	13
Cayman Islands	5.22	5.43	5.36	5.41	5.31	5.32	5.4	10
Central African Republic	46.05	23.47	29.67	24.20	36.08	34.47	29.6	63
Chad	146.52	69.70	90.79	72.18	112.62	107.11	90.5	133
Chile	1,004.38	1,006.99	1,004.78	1,005.73	1,004.57	1,005.32	1,005.5	11
China	116,262.44	121,015.58	119,525.82	120,716.06	118,240.35	118,651.88	119,629.9	10
Colombia	1,269.37	1,118.15	1,158.21	1,121.88	1,201.69	1,191.42	1,158.3	13
Comoros	9.44	5.52	6.59	5.64	7.71	7.43	6.6	31
Congo	113.28	94.59	99.60	95.10	104.96	103.66	99.6	14
Cook Islands	0.55	0.51	0.52	0.51	0.53	0.53	0.5	12
Costa Rica	126.33	111.06	115.10	111.44	119.50	118.46	115.1	13
Côte d'Ivoire	357.20	247.00	277.03	250.38	308.42	300.61	276.7	19
Croatia	215.57	215.77	215.39	215.51	215.45	215.59	215.5	11
Cuba	352.55	326.05	332.88	326.56	340.57	338.84	333.0	12
Curaçao	78.62	86.56	84.24	86.19	82.04	82.66	84.3	10
Cyprus	79.96	81.98	81.30	81.82	80.77	80.96	81.4	11
Czechia	1,108.78	1,171.59	1,152.54	1,168.13	1,135.33	1,140.52	1,153.6	10
Democratic Republic of the Congo	789.51	370.54	485.55	384.07	604.61	574.59	483.9	171
Denmark	341.99	346.87	345.01	346.30	343.81	344.36	345.3	11
Djibouti	18.33	14.70	15.68	14.80	16.72	16.46	15.7	15
Dominica	1.81	1.60	1.65	1.60	1.72	1.70	1.7	13
Dominican Republic	324.86	298.71	305.48	299.23	313.06	311.34	305.6	12
Ecuador	561.41	523.16	532.94	523.82	544.06	541.60	533.1	12
Egypt	3,192.38	2,965.55	3,023.73	2,969.65	3,089.63	3,074.95	3,024.7	12
El Salvador	129.48	106.33	112.56	106.98	119.18	117.57	112.5	14
Equatorial Guinea	42.07	38.89	39.71	38.95	40.63	40.43	39.7	12
Eritrea	38.77	22.68	27.08	23.19	31.66	30.51	27.0	31

sum emissions 2020 - 2100 - national budgets -	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope	
	const	exp	lin	quadr	rad	abs	budget	average	
in Mill. t							RM 2 - 6	budget	
Estonia	238.78	258.02	252.33	257.08	247.01	248.54	252.6	10	
Eswatini	21.52	17.23	18.39	17.36	19.62	19.32	18.4	15	
Ethiopia	1,143.13	616.07	760.53	632.92	910.39	872.71	758.5	44	
Falkland Islands	0.40	0.42	0.42	0.42	0.41	0.41	0.4	10	
Faroes	0.45	0.21	0.28	0.22	0.34	0.33	0.3	143	
Fiji	20.11	17.18	17.96	17.26	18.80	18.60	18.0	13	
Finland	492.91	516.26	509.06	514.88	502.70	504.68	509.5	10	
France and Monaco	3,508.15	3,523.30	3,513.91	3,518.68	3,511.45	3,514.54	3,516.4	11	
French Guiana	9.68	9.07	9.22	9.08	9.40	9.36	9.2	12	
French Polynesia	7.81	7.06	7.26	7.08	7.48	7.43	7.3	12	
Gabon	78.86	75.06	76.00	75.10	77.12	76.88	76.0	12	
Georgia	136.84	128.91	130.91	129.03	133.23	132.73	131.0	12	
Germany	7,370.63	7,715.18	7,608.75	7,694.70	7,515.02	7,544.25	7,615.6	10	
Ghana	455.19	328.54	362.98	332.37	399.09	390.14	362.6	18	
Gibraltar	6.50	7.04	6.88	7.02	6.73	6.78	6.9	10	
Greece	768.14	793.68	785.47	791.91	778.63	780.92	786.1	11	
Greenland	5.32	5.59	5.50	5.57	5.43	5.45	5.5	10	
Grenada	3.62	3.38	3.44	3.38	3.51	3.49	3.4	12	
Guadeloupe	25.10	25.60	25.42	25.55	25.30	25.35	25.4	11	
Guatemala	346.17	282.37	299.55	284.16	317.80	313.36	299.4	14	
Guinea	140.42	81.51	97.64	83.38	114.39	110.19	97.4	32	
Guinea-Bissau	21.03	12.16	14.59	12.44	17.11	16.48	14.6	32	
Guyana	24.73	22.94	23.40	22.97	23.92	23.80	23.4	12	
Haiti	132.65	81.69	95.63	83.30	110.13	106.50	95.4	26	
Honduras	181.50	144.95	154.82	146.00	165.26	162.71	154.7	15	
Hong Kong	475.49	485.73	482.19	484.82	479.54	480.55	482.6	11	
Hungary	572.05	580.04	576.98	579.10	575.02	575.92	577.4	11	
Iceland	41.06	43.72	42.92	43.58	42.19	42.40	43.0	10	
India	36,502.72	32,629.32	33,649.44	32,720.33	34,765.40	34,504.39	33,653.8	12	
Indonesia	7,586.60	6,859.83	7,050.15	6,876.05	7,259.92	7,211.36	7,051.5	12	
Iran	7,524.54	7,890.03	7,777.57	7,868.65	7,677.99	7,708.83	7,784.6	10	
Iraq	2,102.01	2,109.55	2,104.35	2,106.84	2,103.32	2,105.05	2,105.8	11	
Ireland	374.04	387.75	383.40	386.84	379.71	380.92	383.7	11	
Israel and Palestine, State of	731.74	735.44	733.33	734.46	732.66	733.35	733.8	11	
Italy, San Marino and the Holy See	3,635.38	3,691.76	3,670.75	3,685.57	3,656.68	3,662.84	3,673.5	11	
Jamaica	98.85	92.76	94.30	92.86	96.08	95.69	94.3	12	
Japan	11,916.48	12,521.35	12,336.02	12,486.59	12,170.93	12,221.67	12,347.3	10	
Jordan	325.23	302.86	308.58	303.25	315.09	313.65	308.7	12	
Kazakhstan	3,050.49	3,286.87	3,216.82	3,275.16	3,151.46	3,170.38	3,220.1	10	
Kenya	658.30	424.87	488.63	432.16	555.08	538.47	487.8	23	
Kiribati	1.34	0.80	0.94	0.81	1.10	1.06	0.9	29	
Kuwait	967.36	1,052.13	1,027.19	1,048.08	1,003.69	1,010.40	1,028.3	10	
Kyrgyzstan	150.79	130.27	135.74	130.80	141.63	140.22	135.7	13	
Laos	96.82	65.78	74.24	66.74	83.08	80.88	74.1	20	
Latvia	87.36	86.08	86.30	86.02	86.71	86.67	86.4	11	
Lebanon	293.04	286.04	287.55	285.94	289.69	289.34	287.7	11	
Lesotho	25.30	15.71	18.33	16.01	21.06	20.38	18.3	25	
Liberia	55.07	32.38	38.59	33.10	45.04	43.43	38.5	30	
Libya	586.98	613.67	605.40	612.07	598.15	600.42	605.9	10	
Lithuania	158.87	160.67	159.94	160.43	159.51	159.73	160.1	11	
Luxembourg	98.35	105.87	103.64	105.50	101.56	102.17	103.7	10	
Macao	17.67	15.92	16.38	15.96	16.89	16.77	16.4	12	
Madagascar	278.69	152.28	186.92	156.31	222.86	213.83	186.4	41	
Malawi	179.51	90.72	115.08	93.58	140.32	133.96	114.7	67	
Malaysia	2,679.23	2,795.16	2,759.05	2,788.03	2,727.62	2,737.57	2,761.5	10	
Maldives	12.83	11.17	11.61	11.21	12.09	11.97	11.6	13	
Mali	183.24	88.85	114.75	91.89	141.58	134.82	114.4	101	
Malta	17.62	17.03	17.17	17.03	17.34	17.31	17.2	11	
Martinique	25.83	26.55	26.31	26.50	26.12	26.19	26.3	11	
Mauritania	70.07	51.49	56.54	52.05	61.84	60.52	56.5	17	
Mauritius	52.10	50.56	50.91	50.55	51.37	51.29	50.9	11	

sum emissions 2020 - 2100 - national budgets -	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
in Mill. t							RM 2 - 6	budget
Mexico	5,626.92	5,516.24	5,538.61	5,513.49	5,572.89	5,568.03	5,541.9	11
Moldova	116.05	105.50	108.26	105.73	111.31	110.60	108.3	12
Mongolia	210.75	215.70	214.02	215.29	212.73	213.21	214.2	11
Morocco	958.68	853.52	881.27	856.03	911.54	904.44	881.4	13
Mozambique	359.49	222.32	259.83	226.63	298.86	289.09	259.3	26
Myanmar/Burma	780.45	552.23	614.36	559.19	679.40	663.24	613.7	18
Namibia	63.45	56.01	57.98	56.19	60.12	59.61	58.0	13
Nepal	348.00	219.82	254.85	223.84	291.33	282.21	254.4	24
Netherlands	1,590.34	1,670.09	1,645.63	1,665.49	1,623.87	1,630.57	1,647.1	10
New Caledonia	70.99	77.36	75.49	77.06	73.72	74.22	75.6	10
New Zealand	378.98	393.83	389.15	392.88	385.14	386.44	389.5	11
Nicaragua	114.91	89.58	96.43	90.32	103.67	101.89	96.4	15
Niger	226.29	115.37	145.79	118.93	177.32	169.38	145.4	62
Nigeria	2,801.82	1,941.83	2,176.16	1,968.22	2,421.16	2,360.21	2,173.5	19
North Korea	520.79	429.39	453.97	431.94	480.12	473.77	453.8	14
North Macedonia	93.34	91.70	92.02	91.65	92.53	92.46	92.1	11
Norway	518.48	545.62	537.33	544.08	529.92	532.18	537.8	10
Oman	839.31	905.10	885.62	901.86	867.42	872.68	886.5	10
Pakistan	3,737.29	2,891.75	3,120.69	2,916.55	3,362.09	3,302.72	3,118.8	15
Palau	12.04	13.30	12.93	13.24	12.58	12.68	12.9	10
Panama	146.68	138.40	140.48	138.51	142.90	142.38	140.5	12
Papua New Guinea	113.46	74.90	85.43	76.10	96.41	93.66	85.3	21
Paraguay	131.96	105.63	112.74	106.39	120.26	118.42	112.7	15
Peru	805.88	706.64	732.96	709.12	761.49	754.73	733.0	13
Philippines	2,331.80	1,962.39	2,061.38	1,972.41	2,167.21	2,141.66	2,061.0	14
Poland	3,447.39	3,615.42	3,563.73	3,605.61	3,517.95	3,532.12	3,567.0	10
Portugal	573.36	578.32	576.10	577.48	574.99	575.68	576.5	11
Puerto Rico	55.46	44.56	47.50	44.87	50.62	49.86	47.5	15
Qatar	975.64	1,069.40	1,041.96	1,065.03	1,015.92	1,023.29	1,043.1	10
Réunion	35.65	34.47	34.74	34.47	35.10	35.03	34.8	11
Romania	909.98	899.50	901.06	898.80	904.50	904.25	901.6	11
Russia	17,461.93	18,582.67	18,246.10	18,523.65	17,937.81	18,029.21	18,263.9	10
Rwanda	121.45	61.24	77.76	63.18	94.87	90.56	77.5	68
Saint Helena, Ascension and Tristan da Cunha	0.22	0.21	0.21	0.21	0.21	0.21	0.2	12
Saint Kitts and Nevis	2.70	2.70	2.69	2.69	2.70	2.70	2.7	11
Saint Lucia	5.03	4.53	4.66	4.54	4.81	4.77	4.7	12
Saint Pierre and Miquelon	0.79	0.84	0.82	0.84	0.81	0.81	0.8	10
Saint Vincent and the Grenadines	2.66	2.31	2.40	2.32	2.50	2.48	2.4	13
Samoa	2.98	2.16	2.38	2.18	2.62	2.56	2.4	17
São Tomé and Príncipe	3.27	2.39	2.63	2.41	2.88	2.82	2.6	17
Saudi Arabia	6,016.97	6,496.82	6,354.88	6,473.26	6,222.12	6,260.43	6,361.5	10
Senegal	243.30	175.39	193.86	177.45	213.22	208.42	193.7	18
Serbia and Montenegro	621.20	636.41	631.28	635.16	627.29	628.75	631.8	11
Seychelles	10.01	10.57	10.40	10.54	10.25	10.29	10.4	10
Sierra Leone	82.27	45.82	55.81	46.98	66.17	63.57	55.7	37
Singapore	573.08	603.90	594.51	602.17	586.08	588.64	595.1	10
Slovakia	403.61	417.31	412.91	416.36	409.25	410.47	413.3	11
Slovenia	160.39	166.36	164.46	165.96	162.86	163.38	164.6	11
Solomon Islands	7.13	4.02	4.87	4.12	5.76	5.54	4.9	36
Somalia	144.70	70.63	90.96	73.02	112.01	106.70	90.7	94
South Africa	4,828.15	5,031.30	4,967.84	5,018.66	4,912.82	4,930.33	4,972.2	10
South Korea	6,942.70	7,427.96	7,283.15	7,403.13	7,149.34	7,188.57	7,290.4	10
Spain and Andorra	2,982.50	3,045.67	3,023.75	3,040.02	3,007.41	3,013.70	3,026.1	11
Sri Lanka	407.03	328.19	349.45	330.43	371.99	366.48	349.3	14
Sudan and South Sudan	671.01	431.41	496.85	438.89	565.06	548.02	496.0	23
Suriname	26.00	25.53	25.62	25.52	25.77	25.75	25.6	11
Sweden	491.96	488.83	488.97	488.36	490.11	490.16	489.3	11
Switzerland and Liechtenstein	446.25	446.19	445.55	445.67	445.80	446.05	445.9	11
Syria	414.67	361.61	375.71	362.95	390.95	387.33	375.7	13
Taiwan	2,846.92	3,029.69	2,974.81	3,020.07	2,924.53	2,939.44	2,977.7	10
Tajikistan	137.35	98.30	108.93	99.49	120.06	117.30	108.8	18

sum emissions 2020 - 2100 - national budgets -	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average budget RM 2 - 6	scope average budget
in Mill. t								
Tanzania	635.82	368.05	441.36	376.54	517.52	498.41	440.4	32
Thailand	3,209.26	3,164.50	3,172.17	3,162.30	3,186.52	3,185.08	3,174.1	11
The Gambia	26.25	15.47	18.42	15.81	21.49	20.72	18.4	30
Timor-Leste	14.04	8.06	9.70	8.25	11.40	10.97	9.7	33
Togo	98.58	62.40	72.28	63.53	82.58	80.01	72.2	24
Tonga	2.06	1.68	1.79	1.69	1.89	1.87	1.8	14
Trinidad and Tobago	339.06	369.24	360.37	367.81	352.00	354.39	360.8	10
Tunisia	410.31	388.24	393.75	388.52	400.22	398.85	393.9	12
Turkey	4,627.78	4,662.61	4,646.12	4,656.02	4,638.66	4,643.82	4,649.4	11
Turkmenistan	837.85	897.81	879.95	894.77	863.40	868.24	880.8	10
Turks and Caicos Islands	1.89	1.88	1.88	1.88	1.89	1.89	1.9	11
Uganda	440.83	231.44	288.85	238.15	348.38	333.40	288.0	51
Ukraine	2,104.65	2,085.06	2,087.38	2,083.28	2,094.03	2,093.80	2,088.7	11
United Arab Emirates	2,055.17	2,230.39	2,178.77	2,221.95	2,130.22	2,144.12	2,181.1	10
United Kingdom	3,894.16	3,939.13	3,920.91	3,933.04	3,910.20	3,915.68	3,923.8	11
United States	51,380.61	55,264.85	54,111.88	55,070.96	53,038.66	53,350.24	54,167.3	10
Uruguay	94.84	85.29	87.80	85.51	90.55	89.91	87.8	12
Uzbekistan	1,217.39	1,161.94	1,175.52	1,162.43	1,191.86	1,188.51	1,176.1	12
Vanuatu	3.41	2.04	2.41	2.08	2.80	2.70	2.4	28
Venezuela	1,299.83	1,279.85	1,283.47	1,279.02	1,289.81	1,289.09	1,284.2	11
Vietnam	3,383.36	3,201.13	3,246.66	3,203.47	3,300.03	3,288.70	3,248.0	12
Western Sahara	7.78	5.24	5.93	5.32	6.66	6.48	5.9	20
Yemen	365.24	235.77	271.13	239.81	307.99	298.78	270.7	23
Zambia	205.41	124.04	146.30	126.61	169.45	163.65	146.0	28
Zimbabwe	250.66	193.25	208.80	194.94	225.19	221.16	208.7	16
EU28	35,305.03	36,296.75	35,969.60	36,221.37	35,707.15	35,799.27	35,998.8	11
EU27	31,397.54	32,342.78	32,034.29	32,273.56	31,782.97	31,869.49	32,060.6	11
sub sum 2020 - 2100	471,451	474,002	472,598	473,364	472,121	472,574	472,932	
EU27	-31,398	-32,343	-32,034	-32,274	-31,783	-31,869	-32,061	
EU28	-35,305	-36,297	-35,970	-36,221	-35,707	-35,799	-35,999	
sum	404,748	405,363	404,594	404,869	404,631	404,905	404,873	
base data: budget 2020 - 2100*	405,000	405,000	405,000	405,000	405,000	405,000	405,000	
rounding differences	-252	363	-406	-131	-369	-95	-127	
difference in %	-0.06%	0.09%	-0.10%	-0.03%	-0.09%	-0.02%	-0.03%	
scenario type	RM-1 const	RM-2 exp	RM-3 lin	RM-4 quadr	RM-5 rad	RM-6 abs	average RM 2 - 6	
implicit population weighting vs. emissions**	16.8%	7.5%	10.1%	7.8%	12.7%	12.0%	10.0%	
global (start) change rate 2020	-6.6%	-1.5%	-1.6%	-1.5%	-1.5%	-3.0%		
global change rate 2030 vs. 2010	-48%	-18%	-29%	-17%	-37%	-26%		
global overshoot in Gt	94	200	150	194	122	200		
base data: global CO2 budget 2018 - 2100 incl. FOLU and ISA in Gt:							570	

* excl. FOLU resp. npLUC and international shipping and aviation (ISA)

** these figures are only current if their determination was updated before this document was created

national budgets 2020 - 2100 sorted by 'average budget'	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope	share in the
	const	exp	lin	quadr	rad	abs	budget	average	global
in Mill. t							RM 2 - 6	budget	budget
China	116,262	121,016	119,526	120,716	118,240	118,652	119,630	10	29.5%
United States	51,381	55,265	54,112	55,071	53,039	53,350	54,167	10	13.4%
EU28	35,305	36,297	35,970	36,221	35,707	35,799	35,999	11	8.9%
India	36,503	32,629	33,649	32,720	34,765	34,504	33,654	12	8.3%
EU27	31,398	32,343	32,034	32,274	31,783	31,869	32,061	11	7.9%
Russia	17,462	18,583	18,246	18,524	17,938	18,029	18,264	10	4.5%
Japan	11,916	12,521	12,336	12,487	12,171	12,222	12,347	10	3.0%
Iran	7,525	7,890	7,778	7,869	7,678	7,709	7,785	10	1.9%
Germany	7,371	7,715	7,609	7,695	7,515	7,544	7,616	10	1.9%
South Korea	6,943	7,428	7,283	7,403	7,149	7,189	7,290	10	1.8%
Indonesia	7,587	6,860	7,050	6,876	7,260	7,211	7,051	12	1.7%
Saudi Arabia	6,017	6,497	6,355	6,473	6,222	6,260	6,362	10	1.6%
Canada	5,761	6,194	6,066	6,172	5,946	5,981	6,072	10	1.5%
Brazil	6,426	5,917	6,048	5,927	6,196	6,162	6,050	12	1.5%
Mexico	5,627	5,516	5,539	5,513	5,573	5,568	5,542	11	1.4%
South Africa	4,828	5,031	4,968	5,019	4,913	4,930	4,972	10	1.2%
Turkey	4,628	4,663	4,646	4,656	4,639	4,644	4,649	11	1.1%
Australia	3,996	4,301	4,211	4,286	4,126	4,151	4,215	10	1.0%
United Kingdom	3,894	3,939	3,921	3,933	3,910	3,916	3,924	11	1.0%
Italy, San Marino and the Holy See	3,635	3,692	3,671	3,686	3,657	3,663	3,674	11	0.9%
Poland	3,447	3,615	3,564	3,606	3,518	3,532	3,567	10	0.9%

central premises	
global CO2 budget 2018 - 2100	570 Gt
emissions in 2018 and 2019, FOLU resp. npLUC and ISA	-165 Gt
budget 2020 - 2100 to distribute in this tool	405 Gt
minimum annual global emissions	-4.35 Gt
convergence level	0.25 t / capita

gobal path properties	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6
	const	exp	lin	quadr	rad	abs
implicit population weighting vs. emissions**	17%	7%	10%	8%	13%	12%
global (start) change rate 2020	-6.6%	-1.5%	-1.6%	-1.5%	-1.5%	-3.0%
global change rate 2030 vs. 2010	-48%	-18%	-29%	-17%	-37%	-26%
global overshoot in Gt	94	200	150	194	122	200

** these figures are only current if their determination was updated before this document was created

the Regensburg Model means:
▶ monotonic national paths that are compatible with a given global budget
▶ converging emissions per capita
▶ implicit population weighting to emissions well below 50% depending on choosen global path (concrete values can be found above under properties)

[Download tool for the Regensburg Model: www.save-the-climate.info](http://www.save-the-climate.info)

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