

reference values selected scenariotype: RM-5 rad	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Afghanistan		299%	83%	86%	-15%	11.00	0.29
Albania		-56%	-37%	-95%	-92%	5.66	1.96
Algeria		26%	-26%	-92%	-95%	180.57	4.19
Angola		41%	-33%	-64%	-83%	25.82	0.81
Anguilla		104%	-48%	-69%	-92%	0.02	1.58
Antigua and Barbuda		7%	-33%	-95%	-97%	0.51	5.25
Argentina		-13%	-51%	-95%	-97%	199.41	4.45
Armenia		-85%	-32%	-98%	-92%	5.92	2.00
Aruba		21%	-28%	-95%	-97%	0.78	7.37
Australia		-30%	-53%	-99%	-99%	433.38	17.20
Austria		-47%	-56%	-98%	-98%	72.36	8.08
Azerbaijan		-68%	-30%	-98%	-95%	35.98	3.58
Bahamas		-26%	-35%	-97%	-97%	2.45	6.29
Bahrain		32%	-45%	-98%	-99%	35.44	21.59
Bangladesh		400%	21%	43%	-65%	110.16	0.68
Barbados		122%	-26%	-95%	-98%	3.83	13.33
Belarus		-72%	-54%	-99%	-98%	66.34	7.02
Belgium		-59%	-59%	-99%	-99%	104.41	9.05
Belize		17%	-13%	-74%	-80%	0.37	0.95
Benin		1173%	3%	260%	-71%	8.15	0.69
Bermuda		-51%	-54%	-98%	-98%	0.35	5.60
Bhutan		402%	-21%	-54%	-93%	2.12	2.78
Bolivia		90%	-16%	-78%	-90%	24.51	2.13
Bosnia and Herzegovina		-38%	-31%	-98%	-98%	33.50	10.15
Botswana		22%	-2%	-90%	-92%	7.04	3.06
Brazil		6%	-46%	-88%	-94%	478.15	2.27
British Virgin Islands		119%	-19%	-86%	-95%	0.12	4.05
Brunei		-6%	-57%	-98%	-99%	7.02	16.20
Bulgaria		-76%	-59%	-99%	-98%	43.31	6.19
Burkina Faso		1091%	141%	577%	37%	3.64	0.18
Burundi		759%	696%	595%	543%	0.34	0.03
Cabo Verde		984%	59%	42%	-79%	1.02	1.86
Cambodia		2265%	92%	412%	-58%	16.49	1.00
Cameroon		70%	6%	-32%	-57%	10.10	0.39
Canada		-42%	-54%	-99%	-99%	584.85	15.63
Cayman Islands		26%	-34%	-94%	-97%	0.40	6.20
Central African Republic		467%	156%	279%	71%	0.49	0.10
Chad		900%	543%	652%	384%	0.89	0.06
Chile		28%	-41%	-93%	-97%	89.89	4.74
China		120%	-42%	-92%	-98%	11,535.20	8.05
Colombia		-14%	-32%	-88%	-90%	86.55	1.72
Comoros		340%	61%	119%	-20%	0.21	0.25
Congo		38%	-38%	-72%	-87%	5.80	1.08
Cook Islands		-49%	-63%	-95%	-96%	0.04	2.50
Costa Rica		60%	-36%	-78%	-91%	8.98	1.78
Côte d'Ivoire		219%	28%	7%	-57%	13.56	0.53
Croatia		-64%	-58%	-98%	-98%	19.12	4.63
Cuba		-60%	-55%	-96%	-96%	31.04	2.74
Curaçao		-52%	-58%	-100%	-100%	5.91	36.19
Cyprus		-24%	-57%	-97%	-98%	7.41	6.19
Czechia		-70%	-60%	-99%	-99%	105.69	9.89
Democratic Republic of the Congo		300%	351%	219%	260%	2.98	0.03
Denmark		-73%	-70%	-99%	-99%	31.12	5.39
Djibouti		-45%	-47%	-89%	-89%	1.05	1.08
Dominica		71%	-32%	-72%	-89%	0.10	1.44
Dominican Republic		69%	-37%	-83%	-94%	27.28	2.54
Ecuador		16%	-46%	-88%	-94%	40.70	2.34
Egypt		39%	-40%	-86%	-94%	255.37	2.54
El Salvador		54%	-40%	-69%	-88%	7.15	1.11
Equatorial Guinea		1671%	-60%	76%	-96%	3.47	2.56
Eritrea		289%	76%	107%	-6%	0.75	0.21

reference values selected scenariotype: RM-5 rad	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Estonia		-78%	-62%	-100%	-99%	18.50	13.96
Eswatini		11%	-67%	-76%	-93%	1.14	1.00
Ethiopia		905%	249%	491%	105%	18.25	0.16
Falkland Islands		11%	-38%	-97%	-98%	0.03	9.40
Faroese		426%	316%	313%	227%	0.00	0.04
Fiji		-29%	-39%	-89%	-91%	1.36	1.53
Finland		-65%	-70%	-99%	-99%	43.41	7.85
France and Monaco		-62%	-61%	-98%	-98%	314.74	4.83
French Guiana		-16%	-41%	-90%	-93%	0.61	2.10
French Polynesia		-64%	-66%	-96%	-96%	0.60	2.15
Gabon		-70%	-69%	-96%	-95%	3.48	1.60
Georgia		-81%	4%	-99%	-92%	13.47	3.37
Germany		-68%	-61%	-99%	-99%	702.60	8.41
Ghana		269%	3%	20%	-66%	16.84	0.55
Gibraltar		116%	-35%	-97%	-99%	0.69	20.58
Greece		-62%	-66%	-98%	-99%	65.57	6.26
Greenland		7878%	-63%	134%	-99%	0.54	9.47
Grenada		56%	-18%	-81%	-90%	0.23	2.04
Guadeloupe		1%	-26%	-94%	-96%	1.87	4.68
Guatemala		203%	1%	-43%	-81%	21.20	1.21
Guinea		191%	124%	50%	16%	2.92	0.23
Guinea-Bissau		139%	16%	24%	-40%	0.44	0.23
Guyana		132%	0%	-71%	-87%	1.52	1.94
Haiti		178%	35%	24%	-40%	3.58	0.32
Honduras		151%	-26%	-48%	-85%	10.36	1.06
Hong Kong		-40%	-52%	-97%	-98%	44.02	5.92
Hungary		-66%	-52%	-98%	-98%	53.18	5.49
Iceland		-24%	-52%	-98%	-99%	3.93	11.58
India		123%	-24%	-71%	-90%	2,597.36	1.90
Indonesia		92%	-25%	-79%	-92%	625.66	2.31
Iran		57%	-44%	-95%	-98%	701.99	8.47
Iraq		34%	-26%	-93%	-96%	197.61	5.03
Ireland		-49%	-59%	-98%	-99%	36.55	7.49
Israel and Palestine, State of		-9%	-56%	-95%	-98%	68.33	5.06
Italy, San Marino and the Holy See		-64%	-64%	-98%	-98%	331.56	5.47
Jamaica		-51%	-50%	-95%	-95%	7.44	2.52
Japan		-54%	-56%	-99%	-99%	1,153.72	9.09
Jordan		36%	-32%	-87%	-94%	28.34	2.81
Kazakhstan		-50%	-49%	-99%	-99%	277.36	14.95
Kenya		151%	23%	3%	-50%	19.81	0.38
Kiribati		57%	-39%	-26%	-71%	0.03	0.29
Kuwait		35%	-49%	-98%	-99%	98.95	23.52
Kyrgyzstan		-74%	-6%	-97%	-88%	11.92	1.86
Laos		1770%	134%	322%	-47%	6.78	0.95
Latvia		-80%	-57%	-99%	-97%	8.38	4.39
Lebanon		119%	-36%	-85%	-96%	27.44	4.00
Lesotho		536%	19%	168%	-50%	0.75	0.35
Liberia		199%	116%	50%	9%	1.21	0.24
Libya		-36%	-61%	-98%	-99%	52.05	7.68
Lithuania		-82%	-53%	-99%	-97%	13.77	4.99
Luxembourg		-63%	-61%	-99%	-99%	9.74	15.82
Macao		-34%	-45%	-92%	-93%	1.27	1.99
Madagascar		717%	160%	387%	55%	4.20	0.16
Malawi		640%	130%	415%	60%	1.62	0.09
Malaysia		99%	-47%	-93%	-98%	248.83	7.79
Maldives		628%	-46%	2%	-92%	0.91	1.72
Mali		750%	465%	546%	329%	1.03	0.05
Malta		-78%	-80%	-98%	-98%	1.04	2.37
Martinique		-3%	-32%	-95%	-96%	1.95	5.20
Mauritania		488%	96%	-16%	-72%	7.66	1.69
Mauritius		75%	-43%	-87%	-96%	4.33	3.41

reference values selected scenariotype: RM-5 rad	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Mexico		-20%	-52%	-94%	-97%	485.00	3.80
Moldova		-85%	-44%	-98%	-94%	9.23	2.28
Mongolia		24%	13%	-97%	-97%	35.93	11.14
Morocco		68%	-27%	-79%	-91%	73.91	2.03
Mozambique		613%	129%	225%	4%	9.26	0.30
Myanmar/Burma		550%	239%	53%	-20%	48.31	0.89
Namibia		49%	-26%	-80%	-90%	4.40	1.76
Nepal		877%	123%	230%	-25%	15.02	0.52
Netherlands		-56%	-62%	-99%	-99%	156.41	9.15
New Caledonia		327%	40%	-98%	-99%	15.66	55.37
New Zealand		-26%	-48%	-97%	-98%	38.67	8.08
Nicaragua		79%	-25%	-58%	-82%	5.86	0.90
Niger		383%	206%	225%	106%	2.36	0.10
Nigeria		-2%	-19%	-66%	-72%	100.22	0.50
North Korea		-83%	-58%	-98%	-94%	42.17	1.64
North Macedonia		-62%	-54%	-98%	-97%	8.92	4.28
Norway		-41%	-53%	-98%	-99%	47.99	8.92
Oman		167%	-21%	-96%	-99%	92.78	18.65
Pakistan		98%	-15%	-58%	-82%	223.63	1.03
Palau		-73%	-72%	-100%	-100%	1.33	73.84
Panama		110%	-39%	-80%	-94%	11.63	2.74
Papua New Guinea		32%	-1%	-52%	-64%	4.07	0.46
Paraguay		110%	-9%	-61%	-83%	8.47	1.20
Peru		41%	-35%	-80%	-91%	56.29	1.73
Philippines		86%	-6%	-69%	-84%	150.64	1.39
Poland		-61%	-56%	-99%	-99%	317.65	8.38
Portugal		-48%	-57%	-97%	-98%	48.47	4.74
Puerto Rico		4%	-8%	-82%	-84%	3.91	1.33
Qatar		178%	-32%	-98%	-99%	106.53	37.61
Réunion		44%	-51%	-89%	-96%	3.02	3.40
Romania		-80%	-55%	-99%	-97%	78.63	4.06
Russia		-66%	-53%	-99%	-99%	1,792.02	12.28
Rwanda		342%	193%	204%	102%	1.15	0.09
Saint Helena, Ascension and Tristan da		-18%	-32%	-92%	-93%	0.02	2.61
Saint Kitts and Nevis		170%	-35%	-81%	-95%	0.19	3.67
Saint Lucia		107%	-27%	-70%	-89%	0.30	1.63
Saint Pierre and Miquelon		-81%	-21%	-100%	-98%	0.06	10.64
Saint Vincent and the Grenadines		110%	-26%	-63%	-87%	0.15	1.32
Samoa		-31%	-24%	-81%	-79%	0.14	0.71
São Tomé and Príncipe		116%	-24%	-42%	-80%	0.16	0.74
Saudi Arabia		59%	-42%	-97%	-99%	614.61	17.94
Senegal		177%	-6%	-14%	-71%	9.81	0.60
Serbia and Montenegro		-51%	-46%	-98%	-98%	70.69	7.52
Seychelles		66%	-49%	-96%	-99%	1.05	10.75
Sierra Leone		135%	137%	33%	35%	1.40	0.18
Singapore		-23%	-52%	-98%	-99%	53.37	9.19
Slovakia		-73%	-58%	-99%	-98%	35.99	6.59
Slovenia		-58%	-61%	-98%	-99%	15.37	7.39
Solomon Islands		18%	-14%	-36%	-54%	0.14	0.21
Somalia		280%	219%	181%	136%	0.97	0.06
South Africa		-28%	-51%	-98%	-98%	494.86	8.45
South Korea		9%	-51%	-98%	-99%	651.87	12.73
Spain and Andorra		-48%	-58%	-97%	-98%	259.31	5.54
Sri Lanka		258%	10%	-37%	-80%	27.57	1.29
Sudan and South Sudan		216%	6%	22%	-59%	22.57	0.42
Suriname		9%	-42%	-92%	-96%	2.06	3.54
Sweden		-64%	-60%	-98%	-98%	44.75	4.46
Switzerland and Liechtenstein		-59%	-60%	-98%	-98%	39.37	4.56
Syria		-54%	-75%	-93%	-97%	29.16	1.71
Taiwan		1%	-54%	-98%	-99%	276.78	11.64
Tajikistan		-57%	68%	-90%	-62%	8.92	0.96

reference values selected scenariotype: RM-5 rad	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	
	vs. reference year	1990	2010	1990			2010
Tanzania		573%	97%	248%	2%	13.34	0.23
Thailand		41%	-47%	-91%	-96%	275.06	3.95
The Gambia		302%	27%	100%	-37%	0.59	0.25
Timor-Leste		173%	41%	26%	-35%	0.38	0.30
Togo		216%	-5%	34%	-60%	2.85	0.35
Tonga		11%	-60%	-80%	-93%	0.13	1.22
Trinidad and Tobago		15%	-62%	-99%	-100%	32.74	23.47
Tunisia		7%	-43%	-90%	-95%	32.07	2.74
Turkey		30%	-37%	-93%	-97%	415.78	4.98
Turkmenistan		-11%	-34%	-98%	-99%	90.52	15.23
Turks and Caicos Islands		829%	-39%	-31%	-95%	0.13	3.53
Uganda		1251%	131%	769%	48%	5.34	0.12
Ukraine		-88%	-70%	-99%	-98%	196.40	4.46
United Arab Emirates		75%	-42%	-98%	-99%	222.61	22.78
United Kingdom		-71%	-66%	-99%	-98%	364.91	5.40
United States		-55%	-59%	-99%	-99%	5,107.26	15.52
Uruguay		-13%	-47%	-89%	-93%	6.56	1.90
Uzbekistan		-62%	-57%	-97%	-96%	94.99	2.88
Vanuatu		-38%	-33%	-71%	-68%	0.09	0.29
Venezuela		-49%	-72%	-96%	-98%	110.06	3.86
Vietnam		624%	-4%	-40%	-92%	305.25	3.16
Western Sahara		49%	-19%	-49%	-72%	0.30	0.51
Yemen		30%	-66%	-46%	-86%	10.89	0.37
Zambia		97%	156%	-24%	-1%	7.50	0.42
Zimbabwe		-60%	-31%	-89%	-81%	10.86	0.74
EU27		-64%	-60%	-99%	-98%	2,939.07	6.60
EU28		-65%	-61%	-99%	-98%	3,303.97	6.45
sub sum						42,901.88	
EU27						-2,939.07	
EU28						-3,303.97	
sum						36,658.83	
global 2019*						36,658.83	
difference						0.00	

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

reference values scenario: RM-5 rad sorted by 'emissions 2019' vs. reference year	target year 2030		target year 2050		emissions 2019 in Mill. t	per capita emissions 2019 in t	share in the global emissions in 2019	share cumulative emissions without EU
	1990	2010	1990	2010				
China	120%	-42%	-92%	-98%	11,535	8.0	31.5%	31%
United States	-55%	-59%	-99%	-99%	5,107	15.5	13.9%	45%
EU28	-65%	-61%	-99%	-98%	3,304	6.4	9.0%	45%
EU27	-64%	-60%	-99%	-98%	2,939	6.6	8.0%	45%
India	123%	-24%	-71%	-90%	2,597	1.9	7.1%	52%
Russia	-66%	-53%	-99%	-99%	1,792	12.3	4.9%	57%
Japan	-54%	-56%	-99%	-99%	1,154	9.1	3.1%	61%
Germany	-68%	-61%	-99%	-99%	703	8.4	1.9%	62%
Iran	57%	-44%	-95%	-98%	702	8.5	1.9%	64%
South Korea	9%	-51%	-98%	-99%	652	12.7	1.8%	66%
Indonesia	92%	-25%	-79%	-92%	626	2.3	1.7%	68%
Saudi Arabia	59%	-42%	-97%	-99%	615	17.9	1.7%	70%
Canada	-42%	-54%	-99%	-99%	585	15.6	1.6%	71%
South Africa	-28%	-51%	-98%	-98%	495	8.5	1.3%	72%
Mexico	-20%	-52%	-94%	-97%	485	3.8	1.3%	74%
Brazil	6%	-46%	-88%	-94%	478	2.3	1.3%	75%
Australia	-30%	-53%	-99%	-99%	433	17.2	1.2%	76%
Turkey	30%	-37%	-93%	-97%	416	5.0	1.1%	77%
United Kingdom	-71%	-66%	-99%	-98%	365	5.4	1.0%	78%
Italy, San Marino and the Holy S	-64%	-64%	-98%	-98%	332	5.5	0.9%	79%
Poland	-61%	-56%	-99%	-99%	318	8.4	0.9%	80%

sum emissions 2020 - 2100 - national budgets - in Mill. t	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
							RM 2 - 6	budget
Afghanistan	346.71	198.48	232.16	221.03	268.87	245.88	233.3	21
Albania	55.62	48.63	50.22	49.70	51.92	50.82	50.3	9
Algeria	1,415.29	1,394.94	1,399.62	1,398.22	1,403.74	1,400.00	1,399.3	8
Angola	391.16	281.73	306.60	298.39	333.61	316.58	307.4	12
Anguilla	0.25	0.21	0.22	0.22	0.23	0.22	0.2	9
Antigua and Barbuda	3.82	3.86	3.85	3.86	3.84	3.84	3.8	8
Argentina	1,542.65	1,531.65	1,534.22	1,533.53	1,535.91	1,533.56	1,533.8	8
Armenia	57.78	50.70	52.31	51.79	54.04	52.92	52.4	9
Aruba	5.55	5.80	5.74	5.76	5.68	5.71	5.7	7
Australia	2,822.18	3,097.56	3,035.13	3,056.13	2,964.59	3,005.82	3,031.8	7
Austria	506.14	532.43	526.48	528.50	519.59	523.42	526.1	7
Azerbaijan	292.84	282.69	285.00	284.27	287.34	285.65	285.0	8
Bahamas	17.77	18.30	18.18	18.22	18.03	18.11	18.2	7
Bahrain	227.69	251.95	246.45	248.30	240.25	243.89	246.2	7
Bangladesh	1,869.44	1,289.41	1,421.23	1,377.71	1,564.52	1,474.35	1,425.4	13
Barbados	25.40	27.56	27.07	27.24	26.52	26.84	27.0	7
Belarus	473.13	492.06	487.78	489.25	482.74	485.45	487.5	7
Belgium	720.16	763.82	753.94	757.29	742.57	748.99	753.3	7
Belize	5.13	3.83	4.13	4.03	4.45	4.25	4.1	11
Benin	136.40	94.57	104.08	100.94	114.41	107.91	104.4	13
Bermuda	2.59	2.64	2.63	2.63	2.61	2.62	2.6	7
Bhutan	18.54	17.23	17.53	17.43	17.84	17.63	17.5	8
Bolivia	233.81	207.53	213.51	211.55	219.90	215.75	213.6	9
Bosnia and Herzegovina	228.08	243.74	240.20	241.40	236.14	238.45	240.0	7
Botswana	59.77	56.38	57.16	56.91	57.96	57.41	57.2	8
Brazil	4,461.42	4,004.81	4,108.71	4,074.73	4,219.48	4,147.22	4,111.0	9
British Virgin Islands	0.96	0.94	0.95	0.95	0.95	0.95	0.9	8
Brunei	45.90	50.26	49.27	49.60	48.15	48.81	49.2	7
Bulgaria	315.02	323.95	321.93	322.63	319.50	320.74	321.7	7
Burkina Faso	171.63	90.49	108.92	102.83	129.03	116.45	109.5	30
Burundi	86.86	39.31	50.11	46.54	61.90	54.54	50.5	149
Cabo Verde	10.27	8.89	9.20	9.10	9.54	9.32	9.2	9
Cambodia	221.57	167.61	179.88	175.83	193.17	184.77	180.3	11
Cameroon	251.78	153.25	175.64	168.24	200.03	184.74	176.4	17
Canada	3,833.54	4,191.05	4,110.01	4,137.30	4,018.32	4,071.77	4,105.7	7
Cayman Islands	2.93	3.01	2.99	3.00	2.97	2.98	3.0	7
Central African Republic	37.90	18.65	23.02	21.57	27.80	24.81	23.2	47
Chad	122.72	57.33	72.19	67.27	88.40	78.27	72.7	81
Chile	686.30	686.46	686.45	686.53	685.95	685.68	686.2	8
China	80,729.10	84,892.54	83,950.31	84,271.38	82,858.05	83,465.04	83,887.5	7
Colombia	896.83	763.81	794.06	784.13	826.61	805.73	794.9	9
Comoros	7.56	4.22	4.98	4.72	5.80	5.29	5.0	23
Congo	74.88	57.64	61.56	60.27	65.81	63.12	61.7	11
Cook Islands	0.40	0.36	0.37	0.37	0.38	0.37	0.4	8
Costa Rica	91.76	78.68	81.65	80.68	84.85	82.80	81.7	9
Côte d'Ivoire	271.61	176.78	198.33	191.21	221.78	207.05	199.0	15
Croatia	146.71	146.33	146.42	146.40	146.41	146.29	146.4	8
Cuba	272.23	252.42	256.93	255.46	261.68	258.52	257.0	8
Curaçao	37.18	41.69	40.67	41.01	39.52	40.20	40.6	7
Cyprus	53.92	55.45	55.10	55.22	54.68	54.90	55.1	7
Czechia	721.69	770.00	759.05	762.76	746.53	753.66	758.4	7
Democratic Republic of the Congo	656.48	298.93	380.17	353.29	468.83	413.46	382.9	128
Denmark	231.79	235.12	234.37	234.64	233.38	233.80	234.3	8
Djibouti	13.54	10.42	11.13	10.90	11.90	11.41	11.2	11
Dominica	1.16	0.95	1.00	0.98	1.05	1.01	1.0	10
Dominican Republic	244.94	224.29	228.99	227.46	233.97	230.68	229.1	8
Ecuador	375.41	339.00	347.28	344.57	356.10	350.33	347.5	9
Egypt	2,292.08	2,099.37	2,143.24	2,128.94	2,189.71	2,159.04	2,144.1	8
El Salvador	90.94	70.43	75.09	73.56	80.14	76.94	75.2	11
Equatorial Guinea	31.11	28.53	29.12	28.93	29.74	29.33	29.1	8
Eritrea	30.26	16.41	19.56	18.51	22.99	20.84	19.7	26

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	122.33	133.05	130.62	131.44	127.86	129.46	130.5	7
Eswatini	15.40	11.64	12.49	12.21	13.42	12.83	12.5	11
Ethiopia	935.37	486.26	588.30	554.56	699.60	630.00	591.7	32
Falkland Islands	0.22	0.23	0.23	0.23	0.23	0.23	0.2	7
Faroes	0.37	0.17	0.21	0.20	0.26	0.23	0.2	112
Fiji	14.82	12.32	12.89	12.71	13.51	13.11	12.9	9
Finland	304.84	319.94	316.53	317.69	312.56	314.75	316.3	7
France and Monaco	2,394.26	2,399.76	2,398.61	2,399.25	2,395.62	2,395.44	2,397.7	8
French Guiana	5.85	5.18	5.33	5.28	5.50	5.39	5.3	9
French Polynesia	5.70	5.07	5.21	5.16	5.37	5.27	5.2	9
Gabon	37.18	31.22	32.58	32.13	34.04	33.10	32.6	9
Georgia	111.37	106.60	107.69	107.34	108.80	108.02	107.7	8
Germany	4,889.10	5,158.52	5,097.53	5,118.28	5,027.08	5,066.50	5,093.6	7
Ghana	326.16	214.69	240.02	231.66	267.58	250.27	240.8	14
Gibraltar	4.47	4.94	4.83	4.87	4.71	4.78	4.8	7
Greece	475.97	489.99	486.83	487.93	483.01	484.97	486.5	7
Greenland	3.68	3.92	3.86	3.88	3.80	3.84	3.9	7
Grenada	2.21	1.95	2.01	1.99	2.07	2.03	2.0	9
Guadeloupe	14.34	14.32	14.33	14.33	14.32	14.31	14.3	8
Guatemala	258.27	203.89	216.26	212.18	229.63	221.14	216.6	10
Guinea	111.70	61.26	72.72	68.94	85.22	77.40	73.1	25
Guinea-Bissau	16.79	9.20	10.92	10.35	12.80	11.63	11.0	25
Guyana	15.02	13.11	13.54	13.40	14.01	13.71	13.6	9
Haiti	104.60	60.99	70.90	67.63	81.70	74.94	71.2	20
Honduras	134.69	103.33	110.46	108.11	118.18	113.29	110.7	11
Hong Kong	322.50	330.23	328.49	329.10	326.34	327.40	328.3	7
Hungary	394.81	401.25	399.80	400.32	397.93	398.75	399.6	8
Iceland	26.38	28.41	27.95	28.11	27.43	27.73	27.9	7
India	25,852.86	22,459.67	23,231.45	22,978.26	24,059.59	23,525.72	23,250.9	9
Indonesia	5,797.12	5,222.62	5,353.35	5,310.61	5,492.60	5,401.60	5,356.2	9
Iran	4,880.93	5,152.31	5,090.88	5,111.77	5,019.94	5,059.67	5,086.9	7
Iraq	1,491.45	1,501.58	1,499.34	1,500.24	1,495.81	1,496.73	1,498.7	8
Ireland	258.28	270.06	267.40	268.31	264.28	265.99	267.2	7
Israel and Palestine, State of	515.03	518.91	518.05	518.39	516.74	517.11	517.8	8
Italy, San Marino and the Holy See	2,462.92	2,502.20	2,493.39	2,496.57	2,481.93	2,486.93	2,492.2	8
Jamaica	66.96	61.25	62.55	62.13	63.93	63.02	62.6	8
Japan	7,952.62	8,437.69	8,327.85	8,365.12	8,201.58	8,272.92	8,321.0	7
Jordan	246.73	229.65	233.54	232.28	237.63	234.89	233.6	8
Kazakhstan	1,824.02	1,990.21	1,952.54	1,965.23	1,909.89	1,934.72	1,950.5	7
Kenya	507.22	306.41	352.04	336.97	401.74	370.59	353.6	18
Kiribati	1.07	0.61	0.72	0.68	0.83	0.76	0.7	21
Kuwait	633.00	702.30	686.59	691.86	668.89	679.29	685.8	7
Kyrgyzstan	119.72	103.55	107.23	106.02	111.18	108.63	107.3	9
Laos	94.00	70.20	75.61	73.82	81.48	77.77	75.8	11
Latvia	65.01	64.44	64.57	64.54	64.67	64.55	64.6	8
Lebanon	217.36	212.96	213.97	213.66	214.92	214.15	213.9	8
Lesotho	20.22	12.06	13.92	13.30	15.94	14.67	14.0	19
Liberia	43.66	24.23	28.64	27.19	33.46	30.45	28.8	24
Libya	366.51	384.02	380.06	381.41	375.45	377.99	379.8	7
Lithuania	104.09	104.71	104.57	104.63	104.35	104.40	104.5	8
Luxembourg	63.79	69.77	68.42	68.87	66.88	67.78	68.3	7
Macao	12.45	10.90	11.25	11.14	11.63	11.39	11.3	9
Madagascar	223.90	115.66	140.26	132.12	167.08	150.31	141.1	34
Malawi	146.84	70.95	88.20	82.49	107.01	95.25	88.8	55
Malaysia	1,748.96	1,834.54	1,815.18	1,821.78	1,792.66	1,805.10	1,813.9	7
Maldives	9.46	8.06	8.37	8.27	8.72	8.50	8.4	9
Mali	150.86	70.18	88.51	82.45	108.51	96.02	89.1	86
Malta	9.59	8.68	8.88	8.82	9.10	8.96	8.9	9
Martinique	14.65	14.81	14.77	14.78	14.72	14.74	14.8	8
Mauritania	79.89	67.82	70.57	69.66	73.52	71.63	70.6	9
Mauritius	35.69	34.22	34.56	34.45	34.90	34.66	34.6	8

sum emissions 2020 - 2100 - national budgets - in Mill. t	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6	average	scope
	const	exp	lin	quadr	rad	abs	budget	average
							RM 2 - 6	budget
Mexico	3,889.21	3,785.01	3,808.84	3,801.36	3,832.18	3,814.46	3,808.4	8
Moldova	85.89	77.20	79.18	78.53	81.29	79.91	79.2	9
Mongolia	242.33	260.44	256.34	257.73	251.66	254.35	256.1	7
Morocco	717.96	631.41	651.10	644.64	672.18	658.54	651.6	9
Mozambique	279.67	161.78	188.57	179.71	217.76	199.47	189.5	20
Myanmar/Burma	691.43	509.50	550.85	537.22	595.72	567.40	552.1	11
Namibia	45.12	38.62	40.10	39.62	41.69	40.67	40.1	9
Nepal	301.79	196.24	220.22	212.30	246.33	229.93	221.0	15
Netherlands	1,077.42	1,143.61	1,128.62	1,133.71	1,111.40	1,121.14	1,127.7	7
New Caledonia	97.34	109.89	107.05	108.00	103.85	105.74	106.9	7
New Zealand	270.45	284.51	281.32	282.41	277.64	279.69	281.1	7
Nicaragua	83.79	61.76	66.77	65.12	72.20	68.77	66.9	11
Niger	185.80	91.13	112.64	105.53	136.11	121.44	113.4	48
Nigeria	2,087.83	1,341.73	1,511.28	1,455.28	1,695.81	1,579.96	1,516.8	15
North Korea	445.36	375.83	391.64	386.44	408.67	397.76	392.1	9
North Macedonia	69.62	68.80	68.99	68.93	69.14	68.99	69.0	8
Norway	331.55	351.31	346.83	348.35	341.69	344.59	346.6	7
Oman	601.10	661.80	648.04	652.66	632.50	641.60	647.3	7
Pakistan	2,953.40	2,250.75	2,410.47	2,357.81	2,583.58	2,474.05	2,415.3	11
Palau	8.22	9.31	9.07	9.15	8.79	8.95	9.1	7
Panama	102.01	94.59	96.28	95.73	98.06	96.88	96.3	8
Papua New Guinea	89.34	56.49	63.96	61.49	72.08	66.98	64.2	16
Paraguay	103.32	81.51	86.47	84.83	91.83	88.43	86.6	10
Peru	581.57	496.00	515.46	509.07	536.39	522.96	516.0	9
Philippines	1,711.71	1,395.12	1,467.10	1,443.41	1,544.84	1,495.33	1,469.2	10
Poland	2,211.37	2,332.64	2,305.19	2,314.53	2,273.47	2,291.21	2,303.4	7
Portugal	370.13	370.19	370.19	370.23	369.93	369.78	370.1	8
Puerto Rico	45.36	36.62	38.61	37.95	40.76	39.39	38.7	10
Qatar	668.98	750.62	732.11	738.32	711.31	723.60	731.2	7
Réunion	24.92	23.88	24.12	24.05	24.36	24.19	24.1	8
Romania	620.84	609.42	612.04	611.24	614.47	612.44	611.9	8
Russia	11,976.07	12,941.86	12,723.01	12,796.86	12,474.21	12,617.90	12,710.8	7
Rwanda	99.88	48.50	60.17	56.31	72.91	64.95	60.6	53
Saint Helena, Ascension and Tristan da Cunha	0.14	0.13	0.13	0.13	0.13	0.13	0.1	8
Saint Kitts and Nevis	1.57	1.52	1.53	1.53	1.54	1.53	1.5	8
Saint Lucia	3.15	2.65	2.77	2.73	2.89	2.81	2.8	9
Saint Pierre and Miquelon	0.42	0.45	0.44	0.45	0.44	0.44	0.4	7
Saint Vincent and the Grenadines	1.70	1.37	1.45	1.42	1.53	1.48	1.4	10
Samoa	2.30	1.60	1.76	1.71	1.93	1.82	1.8	13
São Tomé and Príncipe	2.55	1.80	1.97	1.91	2.15	2.04	2.0	12
Saudi Arabia	3,991.51	4,388.15	4,298.23	4,328.48	4,196.68	4,256.09	4,293.5	7
Senegal	179.54	120.51	133.92	129.49	148.51	139.34	134.4	14
Serbia and Montenegro	499.22	522.19	516.99	518.77	510.93	514.26	516.6	7
Seychelles	7.11	7.63	7.51	7.55	7.38	7.45	7.5	7
Sierra Leone	65.98	34.79	41.88	39.53	49.61	44.77	42.1	30
Singapore	367.38	390.08	384.94	386.69	379.04	382.38	384.6	7
Slovakia	259.08	267.98	265.97	266.67	263.58	264.84	265.8	7
Slovenia	108.78	113.62	112.52	112.90	111.24	111.94	112.4	7
Solomon Islands	5.77	3.12	3.72	3.52	4.38	3.97	3.7	27
Somalia	119.47	56.23	70.60	65.85	86.28	76.49	71.1	73
South Africa	3,441.59	3,632.45	3,589.24	3,603.94	3,539.35	3,567.28	3,586.5	7
South Korea	4,342.94	4,701.89	4,620.55	4,647.99	4,528.15	4,581.60	4,616.0	7
Spain and Andorra	1,922.03	1,955.11	1,947.68	1,950.35	1,938.14	1,942.41	1,946.7	8
Sri Lanka	324.55	260.23	274.85	270.04	290.67	280.62	275.3	10
Sudan and South Sudan	533.58	329.79	376.10	360.80	426.53	394.90	377.6	17
Suriname	16.80	16.19	16.33	16.29	16.47	16.37	16.3	8
Sweden	346.08	343.67	344.23	344.08	344.60	344.08	344.1	8
Switzerland and Liechtenstein	303.01	301.72	302.03	301.96	302.14	301.81	301.9	8
Syria	302.97	257.70	267.99	264.61	279.07	271.97	268.3	9
Taiwan	1,858.90	2,002.91	1,970.28	1,981.30	1,933.13	1,954.53	1,968.4	7
Tajikistan	122.82	91.96	98.97	96.66	106.58	101.77	99.2	11

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	507.80	278.78	330.82	313.62	387.55	352.05	332.6	25
Thailand	2,185.66	2,137.89	2,148.83	2,145.44	2,159.26	2,150.96	2,148.5	8
The Gambia	20.87	11.65	13.74	13.05	16.03	14.60	13.8	23
Timor-Leste	11.85	6.82	7.96	7.59	9.21	8.43	8.0	21
Togo	76.81	45.78	52.83	50.50	60.51	55.70	53.1	19
Tonga	1.55	1.23	1.30	1.27	1.38	1.33	1.3	10
Trinidad and Tobago	209.48	232.40	227.21	228.95	221.35	224.79	226.9	7
Tunisia	281.15	260.73	265.38	263.87	270.28	267.01	265.5	8
Turkey	3,143.37	3,161.68	3,157.65	3,159.32	3,150.96	3,152.44	3,156.4	8
Turkmenistan	594.48	649.18	636.78	640.96	622.75	630.92	636.1	7
Turks and Caicos Islands	1.10	1.06	1.07	1.07	1.08	1.07	1.1	8
Uganda	358.08	179.05	219.73	206.28	264.10	236.36	221.1	41
Ukraine	1,518.53	1,508.16	1,510.58	1,509.94	1,512.14	1,509.89	1,510.1	8
United Arab Emirates	1,426.31	1,580.94	1,545.88	1,557.65	1,506.37	1,529.59	1,544.1	7
United Kingdom	2,716.88	2,756.57	2,747.67	2,750.91	2,735.94	2,740.89	2,746.4	8
United States	33,494.46	36,606.65	35,901.20	36,138.72	35,102.90	35,568.11	35,863.5	7
Uruguay	65.40	56.79	58.75	58.11	60.85	59.50	58.8	9
Uzbekistan	820.53	766.95	779.15	775.19	791.95	783.35	779.3	8
Vanuatu	2.73	1.56	1.83	1.74	2.12	1.94	1.8	21
Venezuela	879.35	857.51	862.51	860.94	867.36	863.61	862.4	8
Vietnam	2,566.69	2,434.02	2,464.26	2,454.50	2,495.59	2,474.05	2,464.5	8
Western Sahara	6.09	3.94	4.43	4.26	4.96	4.62	4.4	15
Yemen	280.73	169.26	194.59	186.22	222.18	204.88	195.4	18
Zambia	177.01	109.47	124.82	119.75	141.53	131.05	125.3	17
Zimbabwe	173.80	122.55	134.20	130.35	146.85	138.88	134.6	12
EU27	21,155.03	21,885.22	21,720.27	21,777.22	21,523.97	21,627.43	21,706.8	7
EU28	23,871.91	24,641.79	24,467.94	24,528.13	24,259.91	24,368.32	24,453.2	7
sub sum 2020 - 2100	324,793	326,429	326,071	326,224	325,443	325,557	325,945	
EU27	-21,155	-21,885	-21,720	-21,777	-21,524	-21,627	-21,707	
EU28	-23,872	-24,642	-24,468	-24,528	-24,260	-24,368	-21,707	
sum	279,766	279,902	279,883	279,919	279,660	279,561	282,531	
base data: budget 2020 - 2100*	280,000	280,000	280,000	280,000	280,000	280,000	280,000	
rounding differences	-234	-98	-117	-81	-340	-439	2,531	
difference in %	-0.08%	-0.04%	-0.04%	-0.03%	-0.12%	-0.16%	0.90%	
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**	20.3%	8.8%	11.4%	10.6%	14.3%	12.5%	11.5%	
global (start) change rate 2020	-8.8%	-1.5%	-1.5%	-1.5%	-1.5%	-3.7%		
global change rate 2030 vs. 2010	-61%	-28%	-42%	-29%	-49%	-36%		
global overshoot in Gt	93	197	159	193	139	195		
base data: global CO2 budget 2018 - 2100 incl. FOLU and ISA in Gt:							420	

* excl. FOLU resp. LUC 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 RM 2 - 6	average budget	global budget
in Mill. t									
China	80,729	84,893	83,950	84,271	82,858	83,465	83,887	7	29.7%
United States	33,494	36,607	35,901	36,139	35,103	35,568	35,864	7	12.7%
EU28	23,872	24,642	24,468	24,528	24,260	24,368	24,453	7	8.7%
India	25,853	22,460	23,231	22,978	24,060	23,526	23,251	9	8.2%
EU27	21,155	21,885	21,720	21,777	21,524	21,627	21,707	7	7.7%
Russia	11,976	12,942	12,723	12,797	12,474	12,618	12,711	7	4.5%
Japan	7,953	8,438	8,328	8,365	8,202	8,273	8,321	7	2.9%
Indonesia	5,797	5,223	5,353	5,311	5,493	5,402	5,356	9	1.9%
Germany	4,889	5,159	5,098	5,118	5,027	5,066	5,094	7	1.8%
Iran	4,881	5,152	5,091	5,112	5,020	5,060	5,087	7	1.8%
South Korea	4,343	4,702	4,621	4,648	4,528	4,582	4,616	7	1.6%
Saudi Arabia	3,992	4,388	4,298	4,328	4,197	4,256	4,294	7	1.5%
Brazil	4,461	4,005	4,109	4,075	4,219	4,147	4,111	9	1.5%
Canada	3,834	4,191	4,110	4,137	4,018	4,072	4,106	7	1.5%
Mexico	3,889	3,785	3,809	3,801	3,832	3,814	3,808	8	1.3%
South Africa	3,442	3,632	3,589	3,604	3,539	3,567	3,586	7	1.3%
Turkey	3,143	3,162	3,158	3,159	3,151	3,152	3,156	8	1.1%
Australia	2,822	3,098	3,035	3,056	2,965	3,006	3,032	7	1.1%
United Kingdom	2,717	2,757	2,748	2,751	2,736	2,741	2,746	8	1.0%
Italy, San Marino and the Holy See	2,463	2,502	2,493	2,497	2,482	2,487	2,492	8	0.9%
Vietnam	2,567	2,434	2,464	2,455	2,496	2,474	2,464	8	0.9%

central premises	
global CO2 budget 2018 - 2100	420 Gt
emissions in 2018 and 2019, FOLU resp. npLUC and ISA	-140 Gt
budget 2020 - 2100 to distribute in this tool	280 Gt
minimum annual global emissions	-3.67 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**	20%	9%	11%	11%	14%	13%
global (start) change rate 2020	-8.8%	-1.5%	-1.5%	-1.5%	-1.5%	-3.7%
global change rate 2030 vs. 2010	-61%	-28%	-42%	-29%	-49%	-36%
global overshoot in Gt	93	197	159	193	139	195

** 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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