

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
Afghanistan		323%	91%	323%	91%	10,76	0,28
Albania		-54%	-34%	-87%	-81%	4,86	1,69
Algeria		45%	-15%	-78%	-87%	169,83	3,94
Angola		76%	-17%	-17%	-61%	28,85	0,91
Anguilla		190%	-26%	-24%	-81%	0,03	1,94
Antigua and Barbuda		65%	3%	-83%	-89%	0,65	6,66
Argentina		7%	-37%	-86%	-92%	208,42	4,65
Armenia		-82%	-18%	-96%	-79%	5,94	2,01
Aruba		89%	12%	-84%	-91%	0,99	9,36
Australia		-17%	-44%	-95%	-97%	415,29	16,48
Austria		-35%	-46%	-94%	-95%	72,43	8,09
Azerbaijan		-64%	-16%	-94%	-86%	35,56	3,54
Bahamas		15%	1%	-89%	-91%	3,11	7,98
Bahrain		58%	-34%	-91%	-96%	34,17	20,82
Bangladesh		428%	25%	239%	-20%	95,41	0,59
Barbados		144%	-19%	-82%	-94%	3,38	11,78
Belarus		-66%	-44%	-97%	-94%	66,01	6,98
Belgium		-48%	-48%	-96%	-96%	107,07	9,28
Belize		59%	19%	-38%	-54%	0,45	1,16
Benin		1287%	13%	723%	-33%	7,74	0,66
Bermuda		-25%	-29%	-92%	-93%	0,44	7,10
Bhutan		366%	-26%	15%	-82%	1,59	2,08
Bolivia		120%	-3%	-45%	-76%	23,42	2,03
Bosnia and Herzegovina		-37%	-30%	-94%	-94%	27,44	8,31
Botswana		59%	28%	-72%	-78%	7,62	3,31
Brazil		33%	-32%	-70%	-85%	502,65	2,38
British Virgin Islands		236%	24%	-58%	-84%	0,15	5,13
Brunei		16%	-47%	-93%	-97%	7,04	16,24
Bulgaria		-69%	-48%	-97%	-94%	44,53	6,36
Burkina Faso		1134%	150%	1405%	205%	3,81	0,19
Burundi		685%	628%	1428%	1315%	0,33	0,03
Cambodia		1921%	64%	1074%	-5%	11,14	0,68
Cameroon		135%	5%	55%	-31%	14,56	0,56
Canada		-27%	-41%	-95%	-96%	597,67	15,98
Cape Verde		1241%	97%	252%	-48%	1,06	1,93
Cayman Islands		95%	2%	-82%	-90%	0,51	7,87
Central African Republic		445%	146%	736%	277%	0,47	0,10
Chad		796%	476%	1555%	963%	0,68	0,04
Chile		61%	-26%	-79%	-90%	92,16	4,86
China		169%	-29%	-75%	-93%	11.403,32	7,95
Colombia		8%	-15%	-70%	-77%	90,92	1,81
Comoros		360%	68%	388%	79%	0,21	0,25
Congo		95%	-14%	-32%	-70%	7,25	1,35
Cook Islands		-39%	-56%	-87%	-90%	0,04	2,46
Costa Rica		92%	-23%	-46%	-78%	9,01	1,79
Côte d'Ivoire		271%	48%	145%	-2%	14,40	0,56
Croatia		-55%	-47%	-94%	-93%	19,72	4,77
Cuba		-55%	-50%	-90%	-89%	27,82	2,45
Curaçao		-14%	-24%	-96%	-97%	8,49	51,96
Cyprus		-4%	-45%	-90%	-94%	7,64	6,37
Czechia		-61%	-48%	-97%	-96%	111,64	10,44
Democratic Republic of the Congo		266%	313%	602%	691%	2,84	0,03
Denmark		-66%	-63%	-96%	-96%	32,04	5,55
Djibouti		-35%	-37%	-74%	-74%	1,07	1,10
Dominica		148%	-1%	-32%	-73%	0,13	1,81
Dominican Republic		91%	-28%	-57%	-84%	25,34	2,36
Ecuador		53%	-29%	-68%	-85%	44,95	2,59
Egypt		68%	-28%	-64%	-85%	254,04	2,53
El Salvador		98%	-22%	-27%	-71%	8,00	1,24
Equatorial Guinea		1950%	-54%	348%	-90%	3,32	2,45
Eritrea		335%	97%	362%	109%	0,88	0,25

reference values selected scenariorotype: 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%	-98%	-96%	24,99	18,85
Eswatini		39%	-59%	-43%	-83%	1,26	1,09
Ethiopia		894%	246%	1215%	358%	17,26	0,15
Falkland Islands		74%	-3%	-87%	-93%	0,04	12,00
Faroese		387%	285%	809%	619%	0,00	0,04
Fiji		-17%	-29%	-74%	-77%	1,35	1,52
Finland		-52%	-58%	-96%	-96%	48,87	8,83
France and Monaco		-52%	-51%	-94%	-94%	322,88	4,95
French Guiana		26%	-12%	-74%	-82%	0,78	2,69
French Polynesia		-57%	-59%	-89%	-90%	0,59	2,11
Gabon		-37%	-36%	-88%	-88%	6,57	3,03
Georgia		-81%	7%	-96%	-79%	11,19	2,80
Germany		-60%	-50%	-96%	-96%	730,08	8,74
Ghana		376%	31%	176%	-24%	20,63	0,68
Gibraltar		164%	-20%	-85%	-95%	0,68	20,27
Greece		-47%	-53%	-95%	-95%	74,37	7,10
Greenland		9650%	-55%	723%	-96%	0,53	9,36
Grenada		133%	22%	-51%	-75%	0,29	2,59
Guadeloupe		55%	14%	-82%	-87%	2,37	5,94
Guatemala		257%	18%	36%	-55%	21,07	1,20
Guinea		209%	139%	235%	159%	3,08	0,24
Guinea-Bissau		152%	22%	177%	34%	0,45	0,24
Guyana		250%	50%	-25%	-68%	1,96	2,51
Haiti		202%	47%	179%	35%	3,69	0,33
Honduras		196%	-13%	22%	-64%	10,53	1,08
Hong Kong		-25%	-40%	-92%	-93%	45,12	6,07
Hungary		-57%	-41%	-95%	-93%	53,56	5,53
Iceland		0%	-36%	-93%	-95%	4,19	12,36
India		178%	-5%	-28%	-76%	2.693,19	1,97
Indonesia		115%	-16%	-48%	-80%	572,68	2,12
Iran		106%	-26%	-82%	-94%	747,59	9,02
Iraq		61%	-12%	-79%	-89%	193,21	4,92
Ireland		-37%	-50%	-94%	-95%	36,43	7,46
Israel and Palestine, State of		10%	-46%	-86%	-93%	67,44	5,00
Italy, San Marino and the Holy See		-55%	-54%	-95%	-95%	341,32	5,63
Jamaica		-36%	-36%	-87%	-87%	8,02	2,72
Japan		-42%	-44%	-95%	-95%	1.188,26	9,37
Jordan		53%	-24%	-68%	-84%	26,00	2,57
Kazakhstan		-30%	-25%	-96%	-95%	317,66	17,12
Kenya		186%	41%	132%	14%	21,53	0,41
Kiribati		65%	-36%	65%	-36%	0,03	0,28
Kuwait		74%	-34%	-91%	-97%	102,36	24,33
Kyrgyzstan		-72%	0%	-92%	-70%	10,38	1,62
Laos		1275%	72%	858%	20%	3,71	0,52
Latvia		-78%	-49%	-97%	-92%	7,77	4,07
Lebanon		150%	-27%	-60%	-89%	25,60	3,73
Lesotho		568%	25%	502%	13%	0,73	0,34
Liberia		220%	132%	235%	143%	1,28	0,26
Libya		-12%	-47%	-92%	-95%	58,02	8,56
Lithuania		-76%	-39%	-97%	-93%	14,81	5,37
Luxembourg		-51%	-49%	-97%	-97%	10,22	16,61
Macao		-18%	-32%	-79%	-83%	1,32	2,07
Madagascar		748%	170%	981%	244%	4,55	0,17
Malawi		624%	126%	1038%	254%	1,71	0,09
Malaysia		158%	-31%	-76%	-94%	263,84	8,26
Maldives		754%	-36%	149%	-81%	0,90	1,69
Mali		711%	438%	1323%	845%	1,13	0,06
Malta		-62%	-66%	-94%	-94%	1,51	3,43
Martinique		49%	5%	-84%	-89%	2,48	6,60
Mauritania		252%	17%	93%	-36%	3,33	0,74
Mauritius		122%	-28%	-64%	-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%	-85%	-91%	495,57	3,88
Moldova	-83%	-36%	-96%	-85%	8,85	2,19
Mongolia	-13%	-20%	-90%	-91%	20,07	6,22
Morocco	93%	-17%	-49%	-78%	70,17	1,92
Mozambique	699%	157%	628%	134%	10,15	0,33
Myanmar/Burma	421%	197%	221%	83%	33,54	0,62
Namibia	83%	-8%	-50%	-75%	4,57	1,83
Nepal	788%	97%	663%	69%	10,59	0,37
Netherlands	-45%	-52%	-95%	-96%	158,42	9,27
New Caledonia	158%	-16%	-87%	-96%	7,54	26,65
New Zealand	-12%	-38%	-92%	-94%	37,07	7,75
Nicaragua	121%	-7%	-1%	-58%	6,31	0,96
Niger	385%	197%	645%	355%	2,33	0,10
Nigeria	18%	-3%	-23%	-36%	113,69	0,57
North Korea	-84%	-60%	-94%	-85%	32,45	1,26
North Macedonia	-57%	-48%	-94%	-92%	8,25	3,96
Norway	-22%	-38%	-94%	-95%	51,84	9,64
Oman	213%	-7%	-81%	-94%	87,53	17,59
Pakistan	115%	-8%	-1%	-58%	201,51	0,93
Palau	-67%	-66%	-99%	-99%	1,31	72,59
Panama	162%	-24%	-49%	-85%	12,03	2,83
Papua New Guinea	43%	8%	9%	-18%	3,99	0,45
Paraguay	127%	-1%	-7%	-60%	7,70	1,09
Peru	69%	-21%	-52%	-78%	57,19	1,76
Philippines	123%	11%	-25%	-63%	151,87	1,40
Poland	-48%	-41%	-96%	-95%	342,61	9,04
Portugal	-30%	-43%	-91%	-93%	53,18	5,20
Puerto Rico	5%	18%	-58%	-53%	3,26	1,11
Qatar	240%	-17%	-84%	-96%	104,60	36,93
Réunion	78%	-39%	-70%	-90%	3,06	3,44
Romania	-75%	-43%	-96%	-92%	81,37	4,20
Russia	-58%	-40%	-97%	-96%	1.779,97	12,20
Rwanda	325%	182%	572%	345%	1,14	0,09
Saint Helena, Ascension and Tristan da	13%	-6%	-79%	-83%	0,02	3,01
Saint Kitts and Nevis	312%	-1%	-45%	-87%	0,25	4,66
Saint Lucia	204%	8%	-24%	-73%	0,38	2,06
Saint Pierre and Miquelon	-69%	27%	-98%	-91%	0,08	13,88
Saint Vincent and the Grenadines	204%	7%	-11%	-69%	0,19	1,67
Samoa	-22%	-15%	-56%	-52%	0,14	0,69
São Tomé and Príncipe	138%	-17%	34%	-53%	0,15	0,71
Saudi Arabia	103%	-27%	-88%	-96%	628,82	18,35
Senegal	239%	15%	97%	-33%	10,99	0,67
Serbia and Montenegro	-49%	-44%	-94%	-94%	59,25	6,30
Seychelles	97%	-39%	-84%	-95%	1,01	10,30
Sierra Leone	145%	147%	196%	199%	1,49	0,19
Singapore	2%	-37%	-92%	-95%	57,43	9,89
Slovakia	-63%	-44%	-96%	-94%	39,12	7,17
Slovenia	-47%	-50%	-95%	-95%	15,63	7,52
Solomon Islands	20%	-13%	41%	2%	0,14	0,20
Somalia	260%	202%	520%	420%	0,97	0,06
South Africa	-14%	-42%	-92%	-95%	474,51	8,10
South Korea	48%	-33%	-90%	-95%	714,26	13,94
Spain and Andorra	-31%	-45%	-92%	-94%	282,82	6,04
Sri Lanka	282%	17%	52%	-54%	24,14	1,13
Sudan and South Sudan	239%	13%	177%	-8%	21,67	0,40
Suriname	47%	-22%	-78%	-88%	2,30	3,95
Sweden	-56%	-52%	-94%	-93%	44,41	4,42
Switzerland and Liechtenstein	-48%	-49%	-93%	-93%	40,74	4,72
Syria	-45%	-71%	-84%	-92%	29,10	1,70
Taiwan	31%	-40%	-91%	-96%	290,21	12,21
Tajikistan	-63%	45%	-78%	-14%	6,09	0,65

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
Tanzania		614%	110%	680%	129%	13,80	0,24
Thailand		79%	-32%	-74%	-90%	285,68	4,10
The Gambia		328%	35%	346%	40%	0,62	0,26
Timor-Leste		150%	29%	180%	44%	0,29	0,23
Togo		251%	6%	200%	-9%	3,02	0,37
Tonga		28%	-53%	-52%	-82%	0,13	1,20
Trinidad and Tobago		58%	-48%	-92%	-97%	35,95	25,77
Tunisia		36%	-28%	-74%	-86%	33,82	2,89
Turkey		64%	-20%	-79%	-90%	428,38	5,13
Turkmenistan		6%	-22%	-93%	-95%	86,43	14,55
Turks and Caicos Islands		1318%	-7%	96%	-87%	0,17	4,49
Uganda		1256%	131%	1824%	228%	5,64	0,13
Ukraine		-86%	-65%	-98%	-95%	188,97	4,30
United Arab Emirates		112%	-30%	-88%	-96%	216,65	22,17
United Kingdom		-64%	-58%	-96%	-95%	363,06	5,38
United States		-41%	-46%	-96%	-97%	5.334,43	16,21
Uruguay		11%	-32%	-72%	-83%	7,08	2,05
Uzbekistan		-51%	-44%	-91%	-90%	102,01	3,09
Vanuatu		-35%	-30%	-35%	-29%	0,08	0,28
Venezuela		-35%	-64%	-90%	-95%	115,40	4,05
Vietnam		721%	7%	57%	-79%	278,85	2,89
Western Sahara		63%	-12%	16%	-37%	0,29	0,50
Yemen		49%	-62%	21%	-69%	11,95	0,41
Zambia		76%	132%	71%	126%	5,31	0,30
Zimbabwe		-46%	-8%	-75%	-57%	13,40	0,91
EU28		-56%	-51%	-95%	-95%	3.388,14	6,61
EU27		-55%	-50%	-95%	-95%	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. AFOLU and int. shipping and aviation

reference values scenario: RM-5 rad sorted by 'emissions 2019' vs. reference year	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
	1990	2010	1990	2010				
China	169%	-29%	-75%	-93%	11.403	8,0	30,8%	31%
United States	-41%	-46%	-96%	-97%	5.334	16,2	14,4%	45%
EU28	-56%	-51%	-95%	-95%	3.388	6,6	9,1%	45%
EU27	-55%	-50%	-95%	-95%	3.024	6,8	8,2%	45%
India	178%	-5%	-28%	-76%	2.693	2,0	7,3%	52%
Russia	-58%	-40%	-97%	-96%	1.780	12,2	4,8%	57%
Japan	-42%	-44%	-95%	-95%	1.188	9,4	3,2%	60%
Iran	106%	-26%	-82%	-94%	748	9,0	2,0%	62%
Germany	-60%	-50%	-96%	-96%	730	8,7	2,0%	64%
South Korea	48%	-33%	-90%	-95%	714	13,9	1,9%	66%
Saudi Arabia	103%	-27%	-88%	-96%	629	18,3	1,7%	68%
Canada	-27%	-41%	-95%	-96%	598	16,0	1,6%	70%
Indonesia	115%	-16%	-48%	-80%	573	2,1	1,5%	71%
Brazil	33%	-32%	-70%	-85%	503	2,4	1,4%	73%
Mexico	-1%	-40%	-85%	-91%	496	3,9	1,3%	74%
South Africa	-14%	-42%	-92%	-95%	475	8,1	1,3%	75%
Turkey	64%	-20%	-79%	-90%	428	5,1	1,2%	76%
Australia	-17%	-44%	-95%	-97%	415	16,5	1,1%	77%
United Kingdom	-64%	-58%	-96%	-95%	363	5,4	1,0%	78%
Poland	-48%	-41%	-96%	-95%	343	9,0	0,9%	79%
Italy, San Marino and the Holy S	-55%	-54%	-95%	-95%	341	5,6	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	431,80	261,38	328,63	267,14	366,66	343,20	313,4	29
Albania	69,57	60,67	64,10	60,94	66,12	64,90	63,3	13
Algeria	1.924,82	1.888,07	1.899,38	1.888,13	1.908,88	1.903,76	1.897,6	11
Angola	542,03	419,11	467,21	423,12	494,81	477,88	456,4	16
Anguilla	0,39	0,35	0,37	0,35	0,38	0,37	0,4	13
Antigua and Barbuda	6,75	6,92	6,84	6,91	6,81	6,83	6,9	11
Argentina	2.291,53	2.284,78	2.283,49	2.283,55	2.286,60	2.285,60	2.284,8	11
Armenia	80,11	71,92	75,05	72,16	76,92	75,79	74,4	13
Aruba	9,99	10,47	10,27	10,45	10,17	10,23	10,3	10
Australia	4.004,28	4.295,58	4.172,37	4.282,67	4.110,71	4.150,65	4.202,4	10
Austria	738,35	767,45	754,55	765,94	748,63	752,61	757,8	10
Azerbaijan	412,07	399,46	403,77	399,64	406,86	405,11	403,0	11
Bahamas	31,72	32,95	32,40	32,88	32,16	32,32	32,5	10
Bahrain	325,66	351,69	340,73	350,55	335,20	338,77	343,4	10
Bangladesh	2.299,86	1.618,28	1.886,24	1.640,96	2.038,76	1.944,90	1.825,8	19
Barbados	33,32	35,30	34,45	35,21	34,03	34,31	34,7	10
Belarus	684,26	704,64	695,32	703,48	691,29	694,07	697,8	11
Belgium	1.076,63	1.127,73	1.105,47	1.125,23	1.094,91	1.101,91	1.111,1	10
Belize	7,56	6,15	6,70	6,19	7,01	6,82	6,6	14
Benin	174,07	125,56	144,61	127,17	155,47	148,79	140,3	18
Bermuda	4,59	4,73	4,67	4,73	4,64	4,66	4,7	11
Bhutan	21,17	19,11	19,89	19,17	20,36	20,08	19,7	12
Bolivia	314,33	282,72	294,78	283,64	302,00	297,64	292,2	12
Bosnia and Herzegovina	278,92	290,39	285,33	289,80	282,99	284,55	286,6	10
Botswana	89,67	86,25	87,46	86,32	88,28	87,81	87,2	11
Brazil	6.430,82	5.924,04	6.115,06	5.937,87	6.231,81	6.161,86	6.074,1	12
British Virgin Islands	1,67	1,68	1,67	1,68	1,67	1,67	1,7	11
Brunei	67,92	72,83	70,75	72,61	69,71	70,39	71,3	10
Bulgaria	467,09	477,87	472,76	477,19	470,70	472,17	474,1	11
Burkina Faso	213,03	120,07	156,79	123,23	177,52	164,73	148,5	39
Burundi	104,19	49,64	71,23	51,51	83,38	75,87	66,3	200
Cambodia	246,15	178,71	205,19	180,94	220,30	211,01	199,2	18
Cameroon	359,74	251,00	293,76	254,62	318,09	303,11	284,1	20
Canada	5.772,78	6.186,58	6.011,41	6.168,19	5.923,89	5.980,62	6.054,1	10
Cape Verde	14,51	12,95	13,55	12,99	13,90	13,69	13,4	13
Cayman Islands	5,23	5,42	5,34	5,41	5,30	5,32	5,4	10
Central African Republic	45,94	23,83	32,57	24,58	37,50	34,46	30,6	65
Chad	146,13	70,90	100,67	73,48	117,43	107,07	93,9	138
Chile	1.005,79	1.006,84	1.004,67	1.006,16	1.005,15	1.005,26	1.005,6	11
China	116.460,00	120.928,16	118.942,55	120.694,76	118.035,73	118.646,41	119.449,5	10
Colombia	1.269,98	1.120,41	1.177,88	1.124,90	1.211,89	1.191,27	1.165,3	13
Comoros	9,42	5,58	7,10	5,71	7,95	7,42	6,8	32
Congo	113,30	94,87	102,03	95,45	106,19	103,65	100,4	14
Cook Islands	0,55	0,51	0,52	0,51	0,53	0,53	0,5	12
Costa Rica	126,39	111,29	117,09	111,74	120,52	118,44	115,8	13
Côte d'Ivoire	356,85	248,71	291,24	252,31	315,43	300,54	281,6	20
Croatia	215,87	215,74	215,42	215,61	215,60	215,57	215,6	11
Cuba	352,84	326,44	336,36	327,15	342,45	338,81	334,2	12
Curaçao	78,79	86,43	83,24	86,10	81,61	82,66	84,0	10
Cyprus	80,08	81,94	81,06	81,82	80,71	80,96	81,3	11
Czechia	1.110,80	1.170,48	1.144,73	1.167,65	1.132,31	1.140,48	1.151,1	10
Democratic Republic of the Congo	787,39	377,09	539,44	391,13	630,84	574,35	502,6	177
Denmark	342,50	346,76	344,46	346,39	343,76	344,34	345,1	11
Djibouti	18,33	14,76	16,15	14,87	16,95	16,46	15,8	15
Dominica	1,81	1,60	1,68	1,61	1,73	1,70	1,7	13
Dominican Republic	325,11	299,09	308,91	299,80	314,90	311,31	306,8	12
Ecuador	561,89	523,71	537,97	524,70	546,82	541,54	534,9	12
Egypt	3.195,07	2.968,81	3.053,53	2.974,78	3.105,88	3.074,64	3.035,5	12
El Salvador	129,48	106,68	115,56	107,41	120,69	117,55	113,6	14
Equatorial Guinea	42,11	38,94	40,13	39,02	40,86	40,42	39,9	12
Eritrea	38,70	22,93	29,16	23,46	32,68	30,50	27,7	32

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	239,26	257,69	249,92	256,88	246,01	248,53	251,8	10
Eswatini	21,52	17,30	18,95	17,44	19,90	19,31	18,6	15
Ethiopia	1.140,68	624,30	828,36	641,87	943,49	872,40	782,1	45
Falkland Islands	0,40	0,42	0,41	0,42	0,41	0,41	0,4	10
Faroes	0,44	0,21	0,31	0,22	0,36	0,33	0,3	148
Fiji	20,12	17,22	18,34	17,31	19,00	18,60	18,1	13
Finland	493,77	515,84	506,17	514,74	501,64	504,66	508,6	10
France and Monaco	3.513,13	3.522,69	3.512,76	3.520,09	3.513,13	3.514,32	3.516,6	11
French Guiana	9,69	9,08	9,30	9,09	9,44	9,36	9,3	12
French Polynesia	7,82	7,07	7,36	7,09	7,53	7,42	7,3	12
Gabon	78,94	75,11	76,50	75,20	77,41	76,88	76,2	12
Georgia	136,97	129,02	131,96	129,22	133,81	132,71	131,3	12
Germany	7.383,48	7.708,95	7.566,23	7.692,66	7.499,40	7.543,92	7.602,2	10
Ghana	454,85	330,50	379,32	334,61	407,18	390,05	368,3	18
Gibraltar	6,52	7,03	6,82	7,01	6,71	6,78	6,9	10
Greece	769,40	793,20	782,36	791,86	777,64	780,89	785,2	11
Greenland	5,33	5,58	5,47	5,57	5,42	5,45	5,5	10
Grenada	3,63	3,38	3,47	3,39	3,53	3,49	3,5	12
Guadeloupe	25,14	25,59	25,37	25,56	25,29	25,35	25,4	11
Guatemala	346,17	283,34	307,81	285,35	321,96	313,31	302,4	14
Guinea	140,16	82,43	105,22	84,39	118,10	110,15	100,1	32
Guinea-Bissau	20,99	12,30	15,73	12,59	17,67	16,48	15,0	33
Guyana	24,75	22,97	23,63	23,01	24,05	23,80	23,5	12
Haiti	132,44	82,49	102,19	84,17	113,34	106,47	97,7	26
Honduras	181,47	145,51	159,54	146,67	167,63	162,68	156,4	15
Hong Kong	476,23	485,51	480,98	484,88	479,26	480,52	482,2	11
Hungary	572,91	579,85	576,09	579,24	574,95	575,89	577,2	11
Iceland	41,13	43,67	42,59	43,55	42,05	42,40	42,9	10
India	36.523,67	32.686,86	34.154,24	32.799,35	35.029,52	34.500,34	33.834,1	13
Indonesia	7.591,55	6.870,55	7.145,03	6.891,22	7.310,02	7.210,55	7.085,5	12
Iran	7.537,77	7.883,46	7.732,40	7.866,35	7.661,20	7.708,50	7.770,4	10
Iraq	2.104,98	2.109,21	2.103,86	2.107,71	2.104,41	2.104,92	2.106,0	11
Ireland	374,66	387,50	381,72	386,80	379,15	380,90	383,2	11
Israel and Palestine, State of	732,78	735,30	733,02	734,74	732,98	733,30	733,9	11
Italy, San Marino and the Holy See	3.640,85	3.690,48	3.664,34	3.686,38	3.655,93	3.662,63	3.672,0	11
Jamaica	98,94	92,85	95,11	93,00	96,53	95,68	94,6	12
Japan	11.937,63	12.510,52	12.261,14	12.482,53	12.142,76	12.221,16	12.323,6	10
Jordan	325,51	303,18	311,52	303,76	316,70	313,61	309,8	12
Kazakhstan	3.056,53	3.282,81	3.187,20	3.272,82	3.139,26	3.170,29	3.210,5	10
Kenya	657,43	428,50	518,70	436,20	569,85	538,33	498,3	23
Kiribati	1,33	0,81	1,01	0,82	1,13	1,06	1,0	29
Kuwait	969,35	1.050,69	1.016,54	1.047,18	999,22	1.010,38	1.024,8	10
Kyrgyzstan	150,84	130,58	138,40	131,20	143,00	140,20	136,7	13
Laos	96,71	66,26	78,24	67,28	85,05	80,86	75,5	20
Latvia	87,47	86,09	86,49	86,08	86,86	86,66	86,4	11
Lebanon	293,40	286,12	288,51	286,19	290,33	289,32	288,1	11
Lesotho	25,26	15,86	19,57	16,18	21,66	20,37	18,7	26
Liberia	54,97	32,74	41,51	33,49	46,47	43,41	39,5	31
Libya	587,99	613,19	602,11	611,92	596,95	600,40	604,9	10
Lithuania	159,10	160,63	159,74	160,47	159,52	159,72	160,0	11
Luxembourg	98,55	105,74	102,70	105,42	101,18	102,16	103,4	10
Macao	17,68	15,95	16,61	16,00	17,01	16,77	16,5	12
Madagascar	278,11	154,25	203,19	158,46	230,81	213,76	192,1	42
Malawi	179,08	92,11	126,50	95,08	145,88	133,91	118,7	69
Malaysia	2.683,83	2.793,04	2.744,79	2.787,44	2.722,51	2.737,45	2.757,0	10
Maldives	12,83	11,19	11,83	11,24	12,20	11,97	11,7	13
Mali	182,78	90,33	126,90	93,49	147,49	134,77	118,6	105
Malta	17,64	17,04	17,25	17,05	17,39	17,31	17,2	11
Martinique	25,87	26,54	26,23	26,50	26,10	26,19	26,3	11
Mauritania	70,02	51,78	58,94	52,38	63,02	60,51	57,3	17
Mauritius	52,16	50,58	51,12	50,60	51,51	51,29	51,0	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	5.633,87	5.517,40	5.554,07	5.517,90	5.583,84	5.567,62	5.548,2	11	
Moldova	116,14	105,66	109,64	105,95	112,04	110,59	108,8	12	
Mongolia	211,08	215,60	213,43	215,31	212,58	213,19	214,0	11	
Morocco	959,20	855,09	894,96	858,16	918,69	904,33	886,2	13	
Mozambique	358,94	224,46	277,49	228,99	307,52	289,01	265,5	26	
Myanmar/Burma	779,79	555,76	643,79	563,20	693,94	663,09	624,0	19	
Namibia	63,48	56,12	58,95	56,34	60,62	59,61	58,3	13	
Nepal	347,50	221,82	271,36	226,05	299,43	282,13	260,2	25	
Netherlands	1.593,16	1.668,66	1.635,76	1.664,96	1.620,17	1.630,51	1.644,0	10	
New Caledonia	71,14	77,25	74,69	76,99	73,38	74,22	75,3	10	
New Zealand	379,62	393,56	387,33	392,82	384,52	386,42	388,9	10	
Nicaragua	114,88	89,97	99,71	90,78	105,30	101,87	97,5	15	
Niger	225,75	117,10	160,06	120,81	184,28	169,32	150,3	65	
Nigeria	2.799,12	1.955,16	2.287,04	1.983,28	2.475,87	2.359,65	2.212,2	19	
North Korea	520,81	430,78	465,80	433,64	486,10	473,70	458,0	14	
North Macedonia	93,46	91,71	92,25	91,72	92,70	92,46	92,2	11	
Norway	519,41	545,14	533,97	543,89	528,64	532,16	536,8	10	
Oman	840,98	903,97	877,37	901,20	864,02	872,66	883,8	10	
Pakistan	3.736,00	2.904,75	3.229,93	2.931,81	3.416,61	3.302,11	3.157,0	16	
Palau	12,07	13,28	12,77	13,22	12,51	12,68	12,9	10	
Panama	146,82	138,51	141,57	138,71	143,51	142,37	140,9	12	
Papua New Guinea	113,32	75,50	90,39	76,77	98,85	93,64	87,0	22	
Paraguay	131,94	106,04	116,14	106,87	121,97	118,40	113,9	15	
Peru	806,23	708,13	745,87	711,08	768,16	754,63	737,6	13	
Philippines	2.332,21	1.967,99	2.109,26	1.979,40	2.191,55	2.141,35	2.077,9	14	
Poland	3.453,45	3.612,40	3.542,97	3.604,54	3.510,22	3.531,97	3.560,4	10	
Portugal	574,19	578,18	575,59	577,67	575,11	575,64	576,4	11	
Puerto Rico	55,46	44,72	48,91	45,07	51,33	49,85	48,0	15	
Qatar	977,71	1.067,82	1.030,16	1.063,99	1.010,90	1.023,27	1.039,2	10	
Réunion	35,69	34,49	34,90	34,51	35,19	35,03	34,8	11	
Romania	911,16	899,57	902,61	899,39	905,82	904,19	902,3	11	
Russia	17.494,71	18.563,09	18.106,33	18.513,95	17.882,18	18.028,56	18.218,8	10	
Rwanda	121,16	62,19	85,51	64,20	98,65	90,53	80,2	71	
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	2,70	2,70	2,70	2,70	2,7	11	
Saint Lucia	5,04	4,54	4,73	4,55	4,84	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	2,45	2,32	2,52	2,48	2,4	13	
Samoa	2,98	2,17	2,49	2,20	2,67	2,56	2,4	18	
São Tomé and Príncipe	3,27	2,40	2,74	2,43	2,94	2,82	2,7	18	
Saudi Arabia	6.028,98	6.488,60	6.294,71	6.468,42	6.197,22	6.260,24	6.341,8	10	
Senegal	243,12	176,44	202,62	178,64	217,56	208,37	196,7	18	
Serbia and Montenegro	622,18	636,11	629,47	635,21	626,82	628,72	631,3	11	
Seychelles	10,03	10,56	10,33	10,53	10,22	10,29	10,4	10	
Sierra Leone	82,11	46,39	60,50	47,60	68,47	63,55	57,3	39	
Singapore	574,11	603,35	590,68	601,95	584,61	588,62	593,8	10	
Slovakia	404,28	417,05	411,25	416,34	408,71	410,45	412,8	11	
Slovenia	160,66	166,25	163,74	165,94	162,61	163,38	164,4	11	
Solomon Islands	7,12	4,07	5,27	4,17	5,95	5,53	5,0	37	
Somalia	144,34	71,79	100,49	74,27	116,65	106,66	94,0	97	
South Africa	4.836,40	5.027,58	4.942,88	5.017,69	4.903,97	4.930,11	4.964,4	10	
South Korea	6.956,04	7.419,55	7.222,49	7.398,64	7.124,80	7.188,33	7.270,8	10	
Spain and Andorra	2.987,11	3.044,36	3.016,32	3.040,41	3.005,76	3.013,53	3.024,1	11	
Sri Lanka	406,99	329,39	359,65	331,88	377,11	366,42	352,9	15	
Sudan and South Sudan	670,11	435,13	527,73	443,03	580,22	547,87	506,8	23	
Suriname	26,03	25,54	25,69	25,54	25,82	25,75	25,7	11	
Sweden	492,62	488,83	489,48	488,64	490,67	490,13	489,6	11	
Switzerland and Liechtenstein	446,87	446,15	445,66	445,88	446,14	446,02	446,0	11	
Syria	414,84	362,41	382,61	364,00	394,51	387,28	378,2	13	
Taiwan	2.852,27	3.026,50	2.952,01	3.018,49	2.915,46	2.939,33	2.970,4	10	
Tajikistan	137,25	98,91	113,97	100,18	122,55	117,27	110,6	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	634,65	372,22	475,83	381,12	534,38	498,25	452,4	33	
Thailand	3.213,37	3.164,88	3.178,63	3.164,53	3.191,64	3.184,86	3.176,9	11	
The Gambia	26,21	15,64	19,81	16,00	22,17	20,71	18,9	31	
Timor-Leste	14,02	8,15	10,47	8,35	11,78	10,97	9,9	34	
Togo	98,44	62,96	76,94	64,15	84,87	79,98	73,8	24	
Tonga	2,06	1,69	1,84	1,70	1,92	1,87	1,8	14	
Trinidad and Tobago	339,76	368,73	356,58	367,48	350,41	354,38	359,5	10	
Tunisia	410,71	388,54	396,68	389,06	401,87	398,81	395,0	12	
Turkey	4.634,46	4.661,58	4.642,69	4.657,63	4.639,97	4.643,53	4.649,1	11	
Turkmenistan	839,47	896,78	872,45	894,20	860,35	868,21	878,4	10	
Turks and Caicos Islands	1,90	1,88	1,89	1,88	1,89	1,89	1,9	11	
Uganda	439,84	234,71	315,80	241,70	361,52	333,28	297,4	53	
Ukraine	2.107,42	2.085,15	2.090,37	2.084,58	2.096,79	2.093,65	2.090,1	11	
United Arab Emirates	2.059,36	2.227,40	2.156,77	2.220,12	2.121,02	2.144,07	2.173,9	10	
United Kingdom	3.899,90	3.938,02	3.916,02	3.934,15	3.910,34	3.915,45	3.922,8	11	
United States	51.481,57	55.197,96	53.625,43	55.033,06	52.839,08	53.348,60	54.008,8	10	
Uruguay	94,90	85,43	89,04	85,71	91,21	89,90	88,3	12	
Uzbekistan	1.218,66	1.162,69	1.182,90	1.163,89	1.196,15	1.188,41	1.178,8	12	
Vanuatu	3,40	2,06	2,59	2,10	2,89	2,70	2,5	29	
Venezuela	1.301,48	1.280,03	1.286,32	1.279,95	1.291,99	1.289,00	1.285,5	11	
Vietnam	3.386,65	3.203,66	3.270,78	3.207,97	3.313,69	3.288,40	3.256,9	12	
Western Sahara	7,77	5,28	6,26	5,37	6,82	6,47	6,0	21	
Yemen	364,76	237,79	287,81	242,05	316,18	298,70	276,5	23	
Zambia	205,07	125,31	156,78	128,00	174,58	163,60	149,7	28	
Zimbabwe	250,57	194,13	216,22	195,97	228,89	221,11	211,3	16	
EU28	35.361,57	36.277,35	35.850,38	36.222,12	35.672,65	35.797,41	35.964,0	11	
EU27	31.448,30	32.324,53	31.920,15	32.273,21	31.748,42	31.867,87	32.026,8	11	
sub sum 2020 - 2100	472.124	473.912	472.377	473.545	472.315	472.545	472.939		
EU27	-31.448	-32.325	-31.920	-32.273	-31.748	-31.868	-32.027		
EU28	-35.362	-36.277	-35.850	-36.222	-35.673	-35.797	-35.964		
sum	405.314	405.311	404.607	405.050	404.894	404.879	404.948		
base data: budget 2020 - 2100*	-405.000	-405.000	-405.000	-405.000	-405.000	-405.000	-405.000		
rounding differences	314	311	-393	50	-106	-121	-52		
difference in %	-0,08%	-0,08%	0,10%	-0,01%	0,03%	0,03%	0,01%		
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**	16,7%	7,6%	11,2%	8,0%	13,3%	12,0%	10,4%		
global (start) change rate 2020	-6,7%	-1,2%	-1,2%	-1,2%	-1,2%	-3,0%			
global change rate 2030 vs. 2010	-49%	-15%	-27%	-16%	-37%	-26%			
global overshoot in Gt	87	207	159	193	122	199			
base data: global CO2 budget 2018 - 2100 incl. AFOLU and int. shipping and aviation in Gt:								570	

* excl. AFOLU and int. shipping and aviation

** 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	116.460	120.928	118.943	120.695	118.036	118.646	119.450	10	29,5%
United States	51.482	55.198	53.625	55.033	52.839	53.349	54.009	10	13,3%
EU28	35.362	36.277	35.850	36.222	35.673	35.797	35.964	11	8,9%
India	36.524	32.687	34.154	32.799	35.030	34.500	33.834	13	8,4%
EU27	31.448	32.325	31.920	32.273	31.748	31.868	32.027	11	7,9%
Russia	17.495	18.563	18.106	18.514	17.882	18.029	18.219	10	4,5%
Japan	11.938	12.511	12.261	12.483	12.143	12.221	12.324	10	3,0%
Iran	7.538	7.883	7.732	7.866	7.661	7.709	7.770	10	1,9%
Germany	7.383	7.709	7.566	7.693	7.499	7.544	7.602	10	1,9%
South Korea	6.956	7.420	7.222	7.399	7.125	7.188	7.271	10	1,8%
Indonesia	7.592	6.871	7.145	6.891	7.310	7.211	7.085	12	1,7%
Saudi Arabia	6.029	6.489	6.295	6.468	6.197	6.260	6.342	10	1,6%
Brazil	6.431	5.924	6.115	5.938	6.232	6.162	6.074	12	1,5%
Canada	5.773	6.187	6.011	6.168	5.924	5.981	6.054	10	1,5%
Mexico	5.634	5.517	5.554	5.518	5.584	5.568	5.548	11	1,4%
South Africa	4.836	5.028	4.943	5.018	4.904	4.930	4.964	10	1,2%
Turkey	4.634	4.662	4.643	4.658	4.640	4.644	4.649	11	1,1%
Australia	4.004	4.296	4.172	4.283	4.111	4.151	4.202	10	1,0%
United Kingdom	3.900	3.938	3.916	3.934	3.910	3.915	3.923	11	1,0%
Italy, San Marino and the Holy See	3.641	3.690	3.664	3.686	3.656	3.663	3.672	11	0,9%
Poland	3.453	3.612	3.543	3.605	3.510	3.532	3.560	10	0,9%

central premises	
global CO2 budget 2018 - 2100	570 Gt
emissions in 2018 and 2019, AFOLU and international shipping and aviation	-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%	8%	11%	8%	13%	12%
global (start) change rate 2020	-6,7%	-1,2%	-1,2%	-1,2%	-1,2%	-3,0%
global change rate 2030 vs. 2010	-49%	-15%	-27%	-16%	-37%	-26%
global overshoot in Gt	87	207	159	193	122	199

** 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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