

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		313%	86%	146%	11%	10,76	0,28
Albania		-59%	-42%	-93%	-90%	4,86	1,69
Algeria		25%	-27%	-90%	-94%	169,83	3,94
Angola		59%	-25%	-54%	-78%	28,85	0,91
Anguilla		153%	-36%	-60%	-90%	0,03	1,94
Antigua and Barbuda		40%	-12%	-93%	-96%	0,65	6,66
Argentina		-9%	-46%	-93%	-96%	208,42	4,65
Armenia		-85%	-29%	-98%	-89%	5,94	2,01
Aruba		60%	-5%	-94%	-96%	0,99	9,36
Australia		-30%	-53%	-99%	-99%	415,29	16,48
Austria		-45%	-54%	-98%	-98%	72,43	8,09
Azerbaijan		-69%	-28%	-97%	-93%	35,56	3,54
Bahamas		-2%	-15%	-96%	-96%	3,11	7,98
Bahrain		34%	-44%	-98%	-99%	34,17	20,82
Bangladesh		389%	16%	93%	-54%	95,41	0,59
Barbados		107%	-31%	-94%	-98%	3,38	11,78
Belarus		-71%	-52%	-99%	-98%	66,01	6,98
Belgium		-56%	-56%	-98%	-98%	107,07	9,28
Belize		42%	6%	-66%	-75%	0,45	1,16
Benin		1176%	4%	368%	-62%	7,74	0,66
Bermuda		-36%	-40%	-97%	-97%	0,44	7,10
Bhutan		306%	-36%	-40%	-90%	1,59	2,08
Bolivia		91%	-16%	-71%	-87%	23,42	2,03
Bosnia and Herzegovina		-46%	-41%	-98%	-98%	27,44	8,31
Botswana		37%	10%	-87%	-89%	7,62	3,31
Brazil		15%	-41%	-85%	-92%	502,65	2,38
British Virgin Islands		187%	6%	-81%	-93%	0,15	5,13
Brunei		-2%	-55%	-98%	-99%	7,04	16,24
Bulgaria		-74%	-56%	-99%	-98%	44,53	6,36
Burkina Faso		1145%	152%	781%	78%	3,81	0,19
Burundi		774%	710%	803%	737%	0,33	0,03
Cambodia		1756%	51%	566%	-46%	11,14	0,68
Cameroon		119%	-3%	-11%	-61%	14,56	0,56
Canada		-38%	-50%	-99%	-99%	597,67	15,98
Cape Verde		1070%	72%	85%	-73%	1,06	1,93
Cayman Islands		65%	-14%	-93%	-96%	0,51	7,87
Central African Republic		474%	159%	392%	122%	0,47	0,10
Chad		885%	533%	878%	528%	0,68	0,04
Chile		38%	-37%	-91%	-96%	92,16	4,86
China		128%	-40%	-90%	-97%	11.403,32	7,95
Colombia		-6%	-26%	-84%	-88%	90,92	1,81
Comoros		354%	66%	185%	4%	0,21	0,25
Congo		72%	-24%	-63%	-84%	7,25	1,35
Cook Islands		-48%	-62%	-93%	-95%	0,04	2,46
Costa Rica		68%	-32%	-71%	-89%	9,01	1,79
Côte d'Ivoire		245%	37%	40%	-44%	14,40	0,56
Croatia		-61%	-55%	-97%	-97%	19,72	4,77
Cuba		-61%	-57%	-95%	-94%	27,82	2,45
Curaçao		-28%	-36%	-100%	-100%	8,49	51,96
Cyprus		-18%	-54%	-96%	-98%	7,64	6,37
Czechia		-67%	-56%	-99%	-99%	111,64	10,44
Democratic Republic of the Congo		306%	358%	315%	368%	2,84	0,03
Denmark		-71%	-68%	-98%	-98%	32,04	5,55
Djibouti		-42%	-43%	-85%	-86%	1,07	1,10
Dominica		117%	-14%	-64%	-86%	0,13	1,81
Dominican Republic		66%	-38%	-78%	-92%	25,34	2,36
Ecuador		33%	-38%	-84%	-92%	44,95	2,59
Egypt		45%	-38%	-82%	-92%	254,04	2,53
El Salvador		76%	-31%	-60%	-84%	8,00	1,24
Equatorial Guinea		1676%	-60%	129%	-95%	3,32	2,45
Eritrea		329%	95%	169%	22%	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		-69%	-47%	-99%	-99%	24,99	18,85
Eswatini		24%	-63%	-69%	-91%	1,26	1,09
Ethiopia		918%	255%	671%	169%	17,26	0,15
Falkland Islands		47%	-18%	-96%	-98%	0,04	12,00
Faroese		436%	324%	437%	325%	0,00	0,04
Fiji		-27%	-37%	-86%	-88%	1,35	1,52
Finland		-59%	-64%	-98%	-99%	48,87	8,83
France and Monaco		-59%	-58%	-97%	-97%	322,88	4,95
French Guiana		9%	-24%	-87%	-91%	0,78	2,69
French Polynesia		-63%	-65%	-95%	-95%	0,59	2,11
Gabon		-46%	-45%	-94%	-94%	6,57	3,03
Georgia		-83%	-8%	-98%	-89%	11,19	2,80
Germany		-66%	-57%	-99%	-98%	730,08	8,74
Ghana		337%	20%	57%	-57%	20,63	0,68
Gibraltar		123%	-33%	-96%	-99%	0,68	20,27
Greece		-55%	-60%	-98%	-98%	74,37	7,10
Greenland		8162%	-62%	204%	-99%	0,53	9,36
Grenada		102%	6%	-75%	-87%	0,29	2,59
Guadeloupe		32%	-3%	-92%	-94%	2,37	5,94
Guatemala		217%	5%	-25%	-75%	21,07	1,20
Guinea		206%	136%	96%	51%	3,08	0,24
Guinea-Bissau		150%	21%	61%	-22%	0,45	0,24
Guyana		203%	30%	-62%	-84%	1,96	2,51
Haiti		192%	42%	62%	-21%	3,69	0,33
Honduras		165%	-22%	-32%	-80%	10,53	1,08
Hong Kong		-36%	-49%	-96%	-97%	45,12	6,07
Hungary		-64%	-50%	-98%	-97%	53,56	5,53
Iceland		-16%	-46%	-98%	-98%	4,19	12,36
India		143%	-18%	-62%	-87%	2.693,19	1,97
Indonesia		87%	-27%	-73%	-89%	572,68	2,12
Iran		75%	-37%	-93%	-98%	747,59	9,02
Iraq		37%	-25%	-91%	-95%	193,21	4,92
Ireland		-47%	-58%	-98%	-98%	36,43	7,46
Israel and Palestine, State of		-6%	-54%	-94%	-97%	67,44	5,00
Italy, San Marino and the Holy See		-61%	-61%	-98%	-98%	341,32	5,63
Jamaica		-45%	-45%	-94%	-93%	8,02	2,72
Japan		-51%	-53%	-98%	-98%	1.188,26	9,37
Jordan		32%	-35%	-84%	-92%	26,00	2,57
Kazakhstan		-41%	-37%	-99%	-99%	317,66	17,12
Kenya		172%	34%	34%	-34%	21,53	0,41
Kiribati		61%	-37%	-4%	-62%	0,03	0,28
Kuwait		47%	-45%	-98%	-99%	102,36	24,33
Kyrgyzstan		-76%	-13%	-96%	-84%	10,38	1,62
Laos		1186%	61%	449%	-31%	3,71	0,52
Latvia		-81%	-57%	-98%	-96%	7,77	4,07
Lebanon		115%	-38%	-81%	-95%	25,60	3,73
Lesotho		544%	21%	249%	-35%	0,73	0,34
Liberia		216%	129%	95%	42%	1,28	0,26
Libya		-25%	-55%	-97%	-98%	58,02	8,56
Lithuania		-79%	-48%	-99%	-97%	14,81	5,37
Luxembourg		-59%	-57%	-99%	-99%	10,22	16,61
Macao		-28%	-40%	-89%	-91%	1,32	2,07
Madagascar		762%	174%	534%	102%	4,55	0,17
Malawi		667%	139%	570%	109%	1,71	0,09
Malaysia		119%	-42%	-91%	-98%	263,84	8,26
Maldives		649%	-44%	33%	-90%	0,90	1,69
Mali		780%	484%	740%	457%	1,13	0,06
Malta		-68%	-71%	-97%	-97%	1,51	3,43
Martinique		27%	-10%	-93%	-95%	2,48	6,60
Mauritania		221%	7%	9%	-64%	3,33	0,74
Mauritius		90%	-38%	-82%	-94%	4,50	3,55

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
Mexico		-15%	-48%	-93%	-96%	495,57	3,88
Moldova		-85%	-44%	-98%	-92%	8,85	2,19
Mongolia		-26%	-32%	-96%	-96%	20,07	6,22
Morocco		69%	-27%	-73%	-88%	70,17	1,92
Mozambique		671%	148%	322%	36%	10,15	0,33
Myanmar/Burma		381%	174%	83%	4%	33,54	0,62
Namibia		60%	-20%	-73%	-87%	4,57	1,83
Nepal		750%	89%	341%	-2%	10,59	0,37
Netherlands		-53%	-59%	-98%	-98%	158,42	9,27
New Caledonia		117%	-29%	-97%	-99%	7,54	26,65
New Zealand		-25%	-48%	-97%	-98%	37,07	7,75
Nicaragua		99%	-16%	-45%	-77%	6,31	0,96
Niger		412%	213%	338%	168%	2,33	0,10
Nigeria		10%	-10%	-56%	-64%	113,69	0,57
North Korea		-86%	-65%	-97%	-92%	32,45	1,26
North Macedonia		-63%	-55%	-97%	-96%	8,25	3,96
Norway		-34%	-47%	-98%	-98%	51,84	9,64
Oman		164%	-22%	-95%	-98%	87,53	17,59
Pakistan		94%	-17%	-45%	-76%	201,51	0,93
Palau		-72%	-71%	-100%	-100%	1,31	72,59
Panama		126%	-35%	-74%	-93%	12,03	2,83
Papua New Guinea		35%	1%	-37%	-53%	3,99	0,45
Paraguay		103%	-12%	-49%	-78%	7,70	1,09
Peru		48%	-31%	-75%	-88%	57,19	1,76
Philippines		97%	-2%	-59%	-80%	151,87	1,40
Poland		-56%	-50%	-98%	-98%	342,61	9,04
Portugal		-40%	-51%	-96%	-97%	53,18	5,20
Puerto Rico		-6%	5%	-77%	-74%	3,26	1,11
Qatar		187%	-30%	-97%	-99%	104,60	36,93
Réunion		53%	-48%	-86%	-95%	3,06	3,44
Romania		-78%	-51%	-98%	-96%	81,37	4,20
Russia		-64%	-49%	-99%	-99%	1.779,97	12,20
Rwanda		351%	199%	296%	162%	1,14	0,09
Saint Helena, Ascension and Tristan da		-2%	-19%	-90%	-91%	0,02	3,01
Saint Kitts and Nevis		252%	-15%	-75%	-94%	0,25	4,66
Saint Lucia		164%	-6%	-60%	-86%	0,38	2,06
Saint Pierre and Miquelon		-74%	8%	-99%	-97%	0,08	13,88
Saint Vincent and the Grenadines		167%	-6%	-52%	-83%	0,19	1,67
Samoa		-29%	-22%	-75%	-73%	0,14	0,69
São Tomé and Príncipe		118%	-24%	-24%	-73%	0,15	0,71
Saudi Arabia		71%	-38%	-97%	-99%	628,82	18,35
Senegal		211%	6%	12%	-62%	10,99	0,67
Serbia and Montenegro		-57%	-52%	-98%	-97%	59,25	6,30
Seychelles		67%	-48%	-94%	-98%	1,01	10,30
Sierra Leone		147%	149%	73%	75%	1,49	0,19
Singapore		-13%	-46%	-97%	-98%	57,43	9,89
Slovakia		-69%	-52%	-99%	-98%	39,12	7,17
Slovenia		-55%	-58%	-98%	-98%	15,63	7,52
Solomon Islands		21%	-13%	-17%	-40%	0,14	0,20
Somalia		289%	226%	266%	207%	0,97	0,06
South Africa		-27%	-51%	-97%	-98%	474,51	8,10
South Korea		25%	-44%	-97%	-99%	714,26	13,94
Spain and Andorra		-41%	-53%	-97%	-97%	282,82	6,04
Sri Lanka		241%	4%	-16%	-74%	24,14	1,13
Sudan and South Sudan		223%	7%	60%	-47%	21,67	0,40
Suriname		26%	-33%	-89%	-94%	2,30	3,95
Sweden		-62%	-59%	-97%	-97%	44,41	4,42
Switzerland and Liechtenstein		-55%	-57%	-97%	-97%	40,74	4,72
Syria		-52%	-74%	-91%	-95%	29,10	1,70
Taiwan		11%	-49%	-97%	-99%	290,21	12,21
Tajikistan		-66%	33%	-87%	-51%	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		608%	108%	355%	34%	13,80	0,24
Thailand		53%	-42%	-88%	-95%	285,68	4,10
The Gambia		322%	33%	160%	-18%	0,62	0,26
Timor-Leste		149%	28%	63%	-16%	0,29	0,23
Togo		236%	1%	74%	-48%	3,02	0,37
Tonga		14%	-58%	-73%	-90%	0,13	1,20
Trinidad and Tobago		33%	-57%	-98%	-99%	35,95	25,77
Tunisia		17%	-38%	-87%	-93%	33,82	2,89
Turkey		40%	-32%	-91%	-96%	428,38	5,13
Turkmenistan		-11%	-34%	-98%	-98%	86,43	14,55
Turks and Caicos Islands		1113%	-20%	-10%	-94%	0,17	4,49
Uganda		1307%	140%	1030%	93%	5,64	0,13
Ukraine		-88%	-70%	-99%	-98%	188,97	4,30
United Arab Emirates		78%	-41%	-97%	-99%	216,65	22,17
United Kingdom		-70%	-65%	-98%	-98%	363,06	5,38
United States		-50%	-55%	-99%	-99%	5.334,43	16,21
Uruguay		-3%	-41%	-85%	-91%	7,08	2,05
Uzbekistan		-58%	-52%	-96%	-95%	102,01	3,09
Vanuatu		-36%	-31%	-62%	-59%	0,08	0,28
Venezuela		-44%	-70%	-95%	-98%	115,40	4,05
Vietnam		608%	-8%	-21%	-90%	278,85	2,89
Western Sahara		53%	-17%	-33%	-64%	0,29	0,50
Yemen		42%	-64%	-30%	-82%	11,95	0,41
Zambia		71%	126%	-1%	31%	5,31	0,30
Zimbabwe		-52%	-17%	-86%	-76%	13,40	0,91
EU28		-63%	-58%	-98%	-98%	3.388,14	6,61
EU27		-62%	-57%	-98%	-98%	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	128%	-40%	-90%	-97%	11.403	8,0	30,8%	31%
United States	-50%	-55%	-99%	-99%	5.334	16,2	14,4%	45%
EU28	-63%	-58%	-98%	-98%	3.388	6,6	9,1%	45%
EU27	-62%	-57%	-98%	-98%	3.024	6,8	8,2%	45%
India	143%	-18%	-62%	-87%	2.693	2,0	7,3%	52%
Russia	-64%	-49%	-99%	-99%	1.780	12,2	4,8%	57%
Japan	-51%	-53%	-98%	-98%	1.188	9,4	3,2%	60%
Iran	75%	-37%	-93%	-98%	748	9,0	2,0%	62%
Germany	-66%	-57%	-99%	-98%	730	8,7	2,0%	64%
South Korea	25%	-44%	-97%	-99%	714	13,9	1,9%	66%
Saudi Arabia	71%	-38%	-97%	-99%	629	18,3	1,7%	68%
Canada	-38%	-50%	-99%	-99%	598	16,0	1,6%	70%
Indonesia	87%	-27%	-73%	-89%	573	2,1	1,5%	71%
Brazil	15%	-41%	-85%	-92%	503	2,4	1,4%	73%
Mexico	-15%	-48%	-93%	-96%	496	3,9	1,3%	74%
South Africa	-27%	-51%	-97%	-98%	475	8,1	1,3%	75%
Turkey	40%	-32%	-91%	-96%	428	5,1	1,2%	76%
Australia	-30%	-53%	-99%	-99%	415	16,5	1,1%	77%
United Kingdom	-70%	-65%	-98%	-98%	363	5,4	1,0%	78%
Poland	-56%	-50%	-98%	-98%	343	9,0	0,9%	79%
Italy, San Marino and the Holy S	-61%	-61%	-98%	-98%	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	355,33	221,71	250,82	191,91	281,30	269,15	243,0	23
Albania	50,96	43,99	45,41	42,43	47,07	46,44	45,1	9
Algeria	1.339,08	1.310,29	1.312,80	1.303,89	1.321,89	1.319,63	1.313,7	8
Angola	415,22	318,84	339,36	297,35	361,66	352,95	334,0	12
Anguilla	0,28	0,25	0,26	0,24	0,27	0,26	0,3	9
Antigua and Barbuda	4,59	4,73	4,68	4,76	4,66	4,68	4,7	7
Argentina	1.581,67	1.576,41	1.572,88	1.575,26	1.577,21	1.577,18	1.575,8	8
Armenia	57,99	51,57	52,84	50,13	54,39	53,82	52,6	9
Aruba	6,73	7,10	7,00	7,19	6,93	6,96	7,0	7
Australia	2.661,17	2.889,64	2.830,11	2.940,64	2.784,54	2.806,23	2.850,2	7
Austria	499,03	521,86	515,22	526,96	511,13	513,36	517,7	7
Azerbaijan	288,28	278,40	279,77	276,20	282,55	281,72	279,7	8
Bahamas	21,45	22,41	22,13	22,62	21,96	22,05	22,2	7
Bahrain	215,64	236,05	230,80	240,60	226,68	228,61	232,5	7
Bangladesh	1.816,01	1.281,58	1.396,84	1.162,42	1.519,52	1.471,06	1.366,3	14
Barbados	22,29	23,85	23,43	24,19	23,13	23,28	23,6	7
Belarus	464,71	480,69	475,70	484,27	473,07	474,66	477,7	7
Belgium	724,73	764,82	753,60	773,77	746,12	750,00	757,7	7
Belize	5,68	4,58	4,81	4,33	5,07	4,97	4,8	10
Benin	136,40	98,37	106,55	89,89	115,30	111,85	104,4	13
Bermuda	3,12	3,23	3,19	3,25	3,17	3,19	3,2	7
Bhutan	15,29	13,67	13,99	13,31	14,38	14,24	13,9	9
Bolivia	227,35	202,57	207,49	197,04	213,46	211,25	206,4	9
Bosnia and Herzegovina	188,36	197,35	194,76	199,36	193,13	194,01	195,7	7
Botswana	62,96	60,28	60,70	59,69	61,42	61,19	60,7	8
Brazil	4.603,96	4.206,65	4.282,64	4.118,11	4.380,34	4.345,23	4.266,6	8
British Virgin Islands	1,15	1,15	1,15	1,16	1,15	1,15	1,2	7
Brunei	45,15	49,00	48,00	49,86	47,23	47,59	48,3	7
Bulgaria	318,28	326,74	323,88	328,63	322,63	323,50	325,1	7
Burkina Faso	178,31	105,43	121,35	89,17	137,94	131,32	117,0	31
Burundi	90,29	47,52	56,91	37,98	66,62	62,72	54,3	164
Cambodia	192,50	139,62	150,98	127,83	163,15	158,36	148,0	13
Cameroon	284,78	199,51	217,92	180,50	237,48	229,75	213,0	15
Canada	3.838,57	4.163,12	4.078,39	4.235,56	4.013,76	4.044,58	4.107,1	7
Cape Verde	10,53	9,31	9,55	9,03	9,85	9,74	9,5	9
Cayman Islands	3,54	3,69	3,65	3,73	3,62	3,63	3,7	7
Central African Republic	39,16	21,81	25,61	17,95	29,56	27,98	24,6	52
Chad	126,20	67,21	80,16	54,06	93,55	88,18	76,6	113
Chile	692,86	693,70	691,44	693,90	692,64	692,91	692,9	8
China	78.753,67	82.258,75	81.232,38	83.041,65	80.608,97	80.952,38	81.618,8	7
Colombia	925,97	808,70	832,42	782,56	860,39	849,91	826,8	9
Comoros	7,79	4,78	5,44	4,11	6,12	5,85	5,3	25
Congo	84,33	69,88	72,89	66,66	76,28	74,98	72,1	10
Cook Islands	0,39	0,36	0,36	0,35	0,37	0,37	0,4	8
Costa Rica	92,22	80,38	82,78	77,75	85,60	84,55	82,2	9
Côte d'Ivoire	282,58	197,79	216,09	178,88	235,55	227,86	211,2	15
Croatia	148,83	148,73	148,31	148,71	148,63	148,66	148,6	8
Cuba	252,13	231,43	235,35	226,82	240,47	238,64	234,5	8
Curaçao	51,72	57,71	56,20	59,04	54,97	55,53	56,7	7
Cyprus	54,57	56,02	55,53	56,35	55,32	55,47	55,7	7
Czechia	745,38	792,19	779,39	802,64	770,45	774,95	783,9	7
Democratic Republic of the Congo	681,68	359,96	430,57	288,22	503,60	474,31	411,3	145
Denmark	234,62	237,96	236,51	238,71	236,23	236,60	237,2	7
Djibouti	13,84	11,04	11,63	10,42	12,28	12,03	11,5	11
Dominica	1,32	1,16	1,19	1,12	1,23	1,21	1,2	9
Dominican Republic	232,89	212,49	216,40	207,94	221,41	219,61	215,6	9
Ecuador	400,21	370,27	375,84	363,60	383,30	380,67	374,7	8
Egypt	2.278,76	2.101,39	2.134,65	2.061,87	2.178,71	2.163,10	2.127,9	8
El Salvador	96,96	79,09	82,84	75,10	87,01	85,40	81,9	10
Equatorial Guinea	30,09	27,61	28,08	27,05	28,69	28,47	28,0	8
Eritrea	32,02	19,65	22,35	16,89	25,17	24,04	21,6	25

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	158,66	173,12	169,38	176,34	166,47	167,84	170,6	7	
Eswatini	16,26	12,95	13,65	12,21	14,42	14,12	13,5	11	
Ethiopia	961,11	556,21	644,77	465,92	736,89	700,06	620,8	36	
Falkland Islands	0,27	0,29	0,28	0,29	0,28	0,28	0,3	7	
Faroes	0,38	0,20	0,24	0,16	0,28	0,27	0,2	121	
Fiji	14,85	12,58	13,05	12,07	13,58	13,38	12,9	10	
Finland	332,84	350,16	345,25	354,02	342,06	343,74	347,0	7	
France and Monaco	2.418,10	2.425,64	2.416,73	2.427,36	2.419,88	2.421,25	2.422,2	8	
French Guiana	6,88	6,40	6,49	6,30	6,61	6,57	6,5	8	
French Polynesia	5,64	5,06	5,17	4,93	5,31	5,26	5,1	9	
Gabon	55,71	52,70	53,22	52,04	54,00	53,74	53,1	8	
Georgia	97,10	90,87	91,98	89,48	93,56	93,02	91,8	8	
Germany	4.978,64	5.233,94	5.161,44	5.290,95	5.114,52	5.139,32	5.188,0	7	
Ghana	355,62	258,11	279,07	236,37	301,50	292,67	273,5	13	
Gibraltar	4,32	4,72	4,62	4,81	4,54	4,57	4,7	7	
Greece	522,23	540,90	535,13	545,07	532,01	533,87	537,4	7	
Greenland	3,58	3,79	3,73	3,83	3,69	3,71	3,7	7	
Grenada	2,58	2,39	2,43	2,35	2,47	2,46	2,4	8	
Guadeloupe	17,18	17,53	17,40	17,61	17,35	17,39	17,5	7	
Guatemala	259,87	210,61	220,96	199,63	232,45	228,01	218,3	10	
Guinea	116,16	70,89	80,77	60,80	91,08	86,97	78,1	25	
Guinea-Bissau	17,41	10,60	12,08	9,08	13,64	13,02	11,7	26	
Guyana	17,66	16,26	16,53	15,95	16,87	16,75	16,5	8	
Haiti	108,21	69,04	77,56	60,30	86,50	82,94	75,3	20	
Honduras	137,26	109,06	115,02	102,77	121,57	119,03	113,5	11	
Hong Kong	325,09	332,37	329,76	334,00	328,78	329,54	330,9	7	
Hungary	392,51	397,96	395,56	399,19	395,13	395,74	396,7	7	
Iceland	27,49	29,48	28,95	29,92	28,56	28,75	29,1	7	
India	26.472,77	23.464,61	24.064,94	22.794,14	24.787,93	24.519,74	23.926,3	9	
Indonesia	5.476,53	4.911,26	5.022,57	4.785,27	5.159,43	5.109,18	4.997,5	9	
Iran	5.078,13	5.349,29	5.272,91	5.409,84	5.222,66	5.248,94	5.300,7	7	
Iraq	1.449,38	1.452,72	1.447,64	1.453,49	1.449,79	1.450,51	1.450,8	8	
Ireland	253,88	263,95	260,92	266,20	259,18	260,18	262,1	7	
Israel and Palestine, State of	504,20	506,18	504,23	506,63	504,80	505,12	505,4	7	
Italy, San Marino and the Holy See	2.492,55	2.531,52	2.515,29	2.540,25	2.511,59	2.515,86	2.522,9	7	
Jamaica	70,25	65,48	66,35	64,42	67,55	67,14	66,2	8	
Japan	8.033,65	8.483,03	8.357,59	8.583,37	8.273,55	8.316,99	8.402,9	7	
Jordan	231,92	214,41	217,67	210,51	222,03	220,49	217,0	8	
Kazakhstan	2.029,99	2.207,46	2.161,33	2.247,07	2.125,85	2.142,69	2.176,9	7	
Kenya	530,66	351,16	390,11	311,14	431,16	414,86	379,7	18	
Kiribati	1,10	0,68	0,77	0,59	0,87	0,83	0,7	23	
Kuwait	640,54	704,34	688,02	718,58	675,09	681,12	693,4	7	
Kyrgyzstan	110,83	94,94	98,20	91,40	101,96	100,53	97,4	9	
Laos	76,97	53,10	58,26	47,77	63,73	61,56	56,9	15	
Latvia	60,76	59,67	59,74	59,43	60,10	60,02	59,8	8	
Lebanon	204,68	198,98	199,66	197,71	201,34	200,87	199,7	8	
Lesotho	20,59	13,22	14,83	11,58	16,51	15,84	14,4	20	
Liberia	45,42	27,98	31,79	24,10	35,76	34,18	30,8	24	
Libya	396,73	416,49	410,84	420,90	407,23	409,16	412,9	7	
Lithuania	109,14	110,34	109,74	110,61	109,69	109,83	110,0	7	
Luxembourg	65,48	71,13	69,66	72,39	68,53	69,07	70,2	7	
Macao	12,78	11,42	11,68	11,11	12,01	11,89	11,6	9	
Madagascar	233,64	136,52	157,75	114,86	179,85	171,02	152,0	33	
Malawi	152,89	84,69	99,64	69,49	115,13	108,93	95,6	56	
Malaysia	1.812,77	1.898,44	1.873,69	1.917,57	1.858,23	1.866,59	1.882,9	7	
Maldives	9,40	8,11	8,38	7,83	8,68	8,57	8,3	9	
Mali	157,29	84,80	100,70	68,63	117,16	110,56	96,4	85	
Malta	12,36	11,89	11,96	11,78	12,09	12,05	12,0	8	
Martinique	17,61	18,13	17,96	18,25	17,88	17,93	18,0	7	
Mauritania	54,44	40,14	43,20	36,95	46,50	45,20	42,4	13	
Mauritius	36,49	35,25	35,42	34,97	35,77	35,66	35,4	8	

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	3.922,46	3.831,20	3.840,11	3.810,91	3.868,28	3.861,02	3.842,3	8	
Moldova	83,59	75,38	76,98	73,55	78,98	78,25	76,6	9	
Mongolia	143,95	147,50	146,27	148,29	145,77	146,13	146,8	7	
Morocco	696,38	614,75	631,10	596,55	650,68	643,39	627,3	9	
Mozambique	292,95	187,50	210,44	163,99	234,51	224,93	204,3	20	
Myanmar/Burma	613,34	437,68	475,52	398,51	515,87	499,95	465,5	14	
Namibia	46,24	40,48	41,64	39,19	43,02	42,50	41,4	9	
Nepal	282,08	183,53	204,94	161,56	227,46	218,51	199,2	19	
Netherlands	1.072,47	1.131,70	1.115,12	1.144,92	1.104,07	1.109,80	1.121,1	7	
New Caledonia	46,96	51,75	50,53	52,82	49,56	50,01	50,9	7	
New Zealand	256,92	267,86	264,62	270,30	262,70	263,77	265,8	7	
Nicaragua	87,61	68,08	72,23	63,73	76,76	74,99	71,2	11	
Niger	192,40	107,20	125,87	88,21	145,23	137,48	120,8	52	
Nigeria	2.215,11	1.553,37	1.696,19	1.405,82	1.848,03	1.788,01	1.658,3	15	
North Korea	389,46	318,87	333,64	303,13	350,15	343,79	329,9	10	
North Macedonia	65,01	63,64	63,75	63,33	64,19	64,08	63,8	8	
Norway	349,27	369,46	363,86	373,96	360,06	362,01	365,9	7	
Oman	558,28	607,69	594,87	618,72	584,98	589,66	599,2	7	
Pakistan	2.856,53	2.204,76	2.343,42	2.059,45	2.494,32	2.435,39	2.307,5	11	
Palau	7,91	8,85	8,62	9,07	8,42	8,51	8,7	7	
Panama	104,00	97,49	98,65	96,04	100,31	99,74	98,4	8	
Papua New Guinea	90,92	61,26	67,69	54,65	74,47	71,78	66,0	17	
Paraguay	99,72	79,40	83,69	74,87	88,42	86,58	82,6	11	
Peru	588,91	511,99	527,60	494,84	545,92	539,03	523,9	9	
Philippines	1.730,79	1.445,23	1.504,55	1.381,57	1.571,62	1.545,94	1.489,8	10	
Poland	2.326,37	2.451,05	2.415,95	2.478,89	2.392,83	2.404,91	2.428,7	7	
Portugal	394,39	397,53	395,65	398,24	395,74	396,13	396,7	7	
Puerto Rico	41,86	33,44	35,22	31,57	37,18	36,42	34,8	11	
Qatar	643,34	714,01	696,13	729,78	681,68	688,33	702,0	7	
Réunion	25,00	24,06	24,20	23,85	24,46	24,38	24,2	8	
Romania	631,92	622,84	623,01	620,83	626,29	625,64	623,7	8	
Russia	11.695,90	12.533,87	12.309,76	12.720,93	12.146,47	12.226,56	12.387,5	7	
Rwanda	103,48	57,24	67,38	46,93	77,88	73,67	64,6	57	
Saint Helena, Ascension and Tristan da Cunha	0,15	0,15	0,15	0,14	0,15	0,15	0,1	8	
Saint Kitts and Nevis	1,87	1,86	1,86	1,86	1,86	1,86	1,9	8	
Saint Lucia	3,64	3,25	3,33	3,16	3,42	3,39	3,3	9	
Saint Pierre and Miquelon	0,52	0,57	0,56	0,58	0,55	0,55	0,6	7	
Saint Vincent and the Grenadines	1,95	1,68	1,73	1,62	1,80	1,77	1,7	9	
Samoa	2,32	1,69	1,83	1,55	1,97	1,92	1,8	13	
São Tomé and Príncipe	2,55	1,87	2,01	1,71	2,17	2,11	2,0	13	
Saudi Arabia	3.999,64	4.360,11	4.266,78	4.440,57	4.194,48	4.228,64	4.298,1	7	
Senegal	190,15	137,87	149,11	126,21	161,13	156,40	146,1	13	
Serbia and Montenegro	424,10	435,03	431,30	437,48	429,71	430,83	432,9	7	
Seychelles	6,73	7,15	7,03	7,24	6,95	7,00	7,1	7	
Sierra Leone	68,69	40,68	46,80	34,44	53,18	50,63	45,1	30	
Singapore	385,78	408,72	402,39	413,84	398,05	400,26	404,7	7	
Slovakia	274,31	284,33	281,25	286,57	279,57	280,56	282,5	7	
Slovenia	108,84	113,22	111,91	114,20	111,15	111,58	112,4	7	
Solomon Islands	5,94	3,55	4,07	3,01	4,62	4,40	3,9	29	
Somalia	124,05	67,17	79,65	54,49	92,57	87,39	76,3	79	
South Africa	3.268,61	3.418,58	3.374,97	3.452,08	3.348,09	3.362,76	3.391,3	7	
South Korea	4.637,27	5.000,81	4.904,89	5.081,96	4.833,18	4.867,80	4.937,7	7	
Spain and Andorra	2.039,40	2.084,33	2.068,10	2.094,38	2.062,17	2.066,86	2.075,2	7	
Sri Lanka	306,79	245,95	258,77	232,39	272,94	267,45	255,5	11	
Sudan and South Sudan	541,46	357,21	397,20	316,12	439,32	422,59	386,5	18	
Suriname	18,11	17,72	17,75	17,64	17,88	17,85	17,8	8	
Sweden	340,81	337,84	337,50	337,19	338,84	338,66	338,0	8	
Switzerland and Liechtenstein	308,24	307,68	306,89	307,56	307,63	307,66	307,5	8	
Syria	303,68	262,57	270,95	253,41	280,71	277,03	268,9	9	
Taiwan	1.906,84	2.043,49	2.006,95	2.074,00	1.980,32	1.993,38	2.019,6	7	
Tajikistan	107,58	77,52	83,99	70,82	90,90	88,17	82,3	14	

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	526,32	320,54	365,44	274,66	412,33	393,62	353,3	26
Thailand	2.231,17	2.193,18	2.195,10	2.184,74	2.208,02	2.205,17	2.197,2	8
The Gambia	21,64	13,36	15,16	11,51	17,05	16,30	14,7	24
Timor-Leste	11,65	7,05	8,05	6,02	9,10	8,68	7,8	27
Togo	79,86	52,05	58,09	45,84	64,45	61,92	56,5	19
Tonga	1,55	1,26	1,32	1,19	1,39	1,36	1,3	10
Trinidad and Tobago	224,36	247,08	241,28	252,15	236,67	238,81	243,2	7
Tunisia	290,59	273,21	276,26	269,33	280,72	279,20	275,7	8
Turkey	3.185,00	3.206,32	3.192,01	3.211,13	3.193,63	3.196,48	3.199,9	7
Turkmenistan	559,17	604,12	592,30	614,15	583,41	587,68	596,3	7
Turks and Caicos Islands	1,31	1,30	1,30	1,30	1,30	1,30	1,3	8
Uganda	372,64	211,79	247,00	175,93	283,58	268,94	237,4	42
Ukraine	1.460,03	1.442,60	1.442,18	1.438,73	1.448,98	1.447,79	1.444,1	8
United Arab Emirates	1.362,44	1.494,23	1.460,41	1.523,65	1.433,77	1.446,23	1.471,7	7
United Kingdom	2.675,00	2.704,94	2.690,20	2.711,65	2.688,88	2.692,38	2.697,6	7
United States	34.223,52	37.138,31	36.378,04	37.788,89	35.797,14	36.073,90	36.635,3	7
Uruguay	68,61	61,19	62,66	59,54	64,45	63,79	62,3	9
Uzbekistan	858,89	815,02	822,36	805,25	833,85	830,07	821,3	8
Vanuatu	2,80	1,75	1,98	1,51	2,22	2,12	1,9	23
Venezuela	904,28	887,48	888,57	883,74	894,12	892,84	889,4	8
Vietnam	2.396,16	2.252,71	2.277,95	2.220,75	2.314,70	2.302,23	2.273,7	8
Western Sahara	6,19	4,25	4,67	3,81	5,11	4,94	4,6	16
Yemen	294,41	194,85	216,46	172,65	239,22	230,18	210,7	18
Zambia	168,36	105,82	119,44	91,87	133,70	128,02	115,8	22
Zimbabwe	191,82	147,57	156,99	137,70	167,23	163,23	154,5	12
EU28	24.061,89	24.780,42	24.546,40	24.941,04	24.434,43	24.507,06	24.641,9	7
EU27	21.378,17	22.065,63	21.846,63	22.219,28	21.736,22	21.805,24	21.934,6	7
sub sum 2020 - 2100	324.794	326.202	324.916	326.521	325.251	325.472	325.673	
EU27	-21.378	-22.066	-21.847	-22.219	-21.736	-21.805	-21.935	
EU28	-24.062	-24.780	-24.546	-24.941	-24.434	-24.507	-24.642	
sum	279.354	279.356	278.523	279.361	279.081	279.160	279.096	
base data: budget 2020 - 2100*	-279.000	-279.000	-279.000	-279.000	-279.000	-279.000	-279.000	
rounding differences	354	356	-477	361	81	160	96	
difference in %	-0,13%	-0,13%	0,17%	-0,13%	-0,03%	-0,06%	-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**	21,2%	10,8%	13,1%	8,5%	15,5%	14,5%	12,5%	
global (start) change rate 2020	-8,0%	-1,5%	-1,5%	-1,5%	-1,5%	-3,5%		
global change rate 2030 vs. 2010	-56%	-24%	-38%	-25%	-46%	-33%		
global overshoot in Gt	131	227	188	222	162	225		
base data: global CO2 budget 2018 - 2100 incl. AFOLU and int. shipping and aviation in Gt:							420	

* 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	78.754	82.259	81.232	83.042	80.609	80.952	81.619	7	29,2%
United States	34.224	37.138	36.378	37.789	35.797	36.074	36.635	7	13,1%
EU28	24.062	24.780	24.546	24.941	24.434	24.507	24.642	7	8,8%
India	26.473	23.465	24.065	22.794	24.788	24.520	23.926	9	8,6%
EU27	21.378	22.066	21.847	22.219	21.736	21.805	21.935	7	7,9%
Russia	11.696	12.534	12.310	12.721	12.146	12.227	12.388	7	4,4%
Japan	8.034	8.483	8.358	8.583	8.274	8.317	8.403	7	3,0%
Iran	5.078	5.349	5.273	5.410	5.223	5.249	5.301	7	1,9%
Germany	4.979	5.234	5.161	5.291	5.115	5.139	5.188	7	1,9%
Indonesia	5.477	4.911	5.023	4.785	5.159	5.109	4.998	9	1,8%
South Korea	4.637	5.001	4.905	5.082	4.833	4.868	4.938	7	1,8%
Saudi Arabia	4.000	4.360	4.267	4.441	4.194	4.229	4.298	7	1,5%
Brazil	4.604	4.207	4.283	4.118	4.380	4.345	4.267	8	1,5%
Canada	3.839	4.163	4.078	4.236	4.014	4.045	4.107	7	1,5%
Mexico	3.922	3.831	3.840	3.811	3.868	3.861	3.842	8	1,4%
South Africa	3.269	3.419	3.375	3.452	3.348	3.363	3.391	7	1,2%
Turkey	3.185	3.206	3.192	3.211	3.194	3.196	3.200	7	1,1%
Australia	2.661	2.890	2.830	2.941	2.785	2.806	2.850	7	1,0%
United Kingdom	2.675	2.705	2.690	2.712	2.689	2.692	2.698	7	1,0%
Italy, San Marino and the Holy See	2.493	2.532	2.515	2.540	2.512	2.516	2.523	7	0,9%
Poland	2.326	2.451	2.416	2.479	2.393	2.405	2.429	7	0,9%

central premises	
global CO2 budget 2018 - 2100	420 Gt
emissions in 2018 and 2019, AFOLU and international shipping and aviation	-141 Gt
budget 2020 - 2100 to distribute in this tool	279 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**	21%	11%	13%	9%	15%	15%
global (start) change rate 2020	-8,0%	-1,5%	-1,5%	-1,5%	-1,5%	-3,5%
global change rate 2030 vs. 2010	-56%	-24%	-38%	-25%	-46%	-33%
global overshoot in Gt	131	227	188	222	162	225

** 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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