

reference values selected scenariotype: RM-3 lin	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		321%	92%	62%	-26%	11,00	0,29
Albania		-47%	-23%	-95%	-93%	5,66	1,96
Algeria		57%	-8%	-93%	-96%	180,57	4,19
Angola		63%	-23%	-69%	-85%	25,82	0,81
Anguilla		145%	-38%	-73%	-93%	0,02	1,58
Antigua and Barbuda		34%	-16%	-95%	-97%	0,51	5,25
Argentina		9%	-39%	-95%	-97%	199,41	4,45
Armenia		-82%	-17%	-98%	-93%	5,92	2,00
Aruba		53%	-9%	-96%	-98%	0,78	7,37
Australia		-11%	-40%	-99%	-99%	433,38	17,20
Austria		-34%	-45%	-98%	-99%	72,36	8,08
Azerbaijan		-61%	-13%	-98%	-96%	35,98	3,58
Bahamas		-7%	-19%	-97%	-98%	2,45	6,29
Bahrain		68%	-30%	-98%	-99%	35,44	21,59
Bangladesh		470%	38%	25%	-70%	110,16	0,68
Barbados		182%	-6%	-96%	-99%	3,83	13,33
Belarus		-65%	-43%	-99%	-98%	66,34	7,02
Belgium		-48%	-48%	-99%	-99%	104,41	9,05
Belize		37%	2%	-77%	-83%	0,37	0,95
Benin		1353%	18%	213%	-75%	8,15	0,69
Bermuda		-39%	-43%	-98%	-98%	0,35	5,60
Bhutan		518%	-2%	-60%	-94%	2,12	2,78
Bolivia		132%	2%	-81%	-91%	24,51	2,13
Bosnia and Herzegovina		-22%	-13%	-99%	-98%	33,50	10,15
Botswana		50%	21%	-91%	-93%	7,04	3,06
Brazil		29%	-34%	-90%	-95%	478,15	2,27
British Virgin Islands		173%	1%	-87%	-95%	0,12	4,05
Brunei		20%	-46%	-99%	-99%	7,02	16,20
Bulgaria		-69%	-48%	-99%	-98%	43,31	6,19
Burkina Faso		1098%	143%	490%	20%	3,64	0,18
Burundi		666%	610%	505%	460%	0,34	0,03
Cabo Verde		1216%	93%	24%	-82%	1,02	1,86
Cambodia		2674%	125%	346%	-64%	16,49	1,00
Cameroon		84%	15%	-41%	-63%	10,10	0,39
Canada		-27%	-41%	-99%	-99%	584,85	15,63
Cayman Islands		58%	-18%	-95%	-97%	0,40	6,20
Central African Republic		443%	145%	230%	49%	0,49	0,10
Chad		818%	491%	555%	321%	0,89	0,06
Chile		60%	-27%	-94%	-97%	89,89	4,74
China		177%	-27%	-93%	-98%	11.535,20	8,05
Colombia		4%	-18%	-89%	-92%	86,55	1,72
Comoros		357%	67%	91%	-30%	0,21	0,25
Congo		63%	-26%	-75%	-89%	5,80	1,08
Cook Islands		-37%	-54%	-95%	-97%	0,04	2,50
Costa Rica		94%	-22%	-81%	-92%	8,98	1,78
Côte d'Ivoire		256%	42%	-6%	-63%	13,56	0,53
Croatia		-55%	-48%	-98%	-98%	19,12	4,63
Cuba		-51%	-44%	-97%	-96%	31,04	2,74
Curaçao		-39%	-46%	-100%	-100%	5,91	36,19
Cyprus		-5%	-46%	-97%	-98%	7,41	6,19
Czechia		-63%	-50%	-99%	-99%	105,69	9,89
Democratic Republic of the Congo		259%	305%	178%	213%	2,98	0,03
Denmark		-66%	-63%	-99%	-99%	31,12	5,39
Djibouti		-36%	-37%	-90%	-90%	1,05	1,08
Dominica		105%	-18%	-76%	-90%	0,10	1,44
Dominican Republic		107%	-22%	-85%	-94%	27,28	2,54
Ecuador		42%	-34%	-89%	-95%	40,70	2,34
Egypt		71%	-27%	-88%	-95%	255,37	2,54
El Salvador		82%	-29%	-73%	-89%	7,15	1,11
Equatorial Guinea		2075%	-51%	53%	-97%	3,47	2,56
Eritrea		298%	80%	80%	-18%	0,75	0,21

reference values selected scenario type: RM-3 lin	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		-73%	-52%	-100%	-99%	18,50	13,96
Eswatini		30%	-62%	-79%	-94%	1,14	1,00
Ethiopia		902%	248%	415%	79%	18,25	0,16
Falkland Islands		40%	-22%	-97%	-98%	0,03	9,40
Faroese		374%	275%	260%	185%	0,00	0,04
Fiji		-15%	-27%	-90%	-92%	1,36	1,53
Finland		-56%	-62%	-99%	-99%	43,41	7,85
France and Monaco		-52%	-51%	-98%	-98%	314,74	4,83
French Guiana		2%	-29%	-91%	-94%	0,61	2,10
French Polynesia		-56%	-58%	-96%	-97%	0,60	2,15
Gabon		-64%	-63%	-96%	-96%	3,48	1,60
Georgia		-77%	29%	-99%	-93%	13,47	3,37
Germany		-60%	-50%	-99%	-99%	702,60	8,41
Ghana		313%	16%	5%	-71%	16,84	0,55
Gibraltar		174%	-17%	-97%	-99%	0,69	20,58
Greece		-52%	-58%	-99%	-99%	65,57	6,26
Greenland		9966%	-54%	104%	-99%	0,54	9,47
Grenada		91%	0%	-83%	-91%	0,23	2,04
Guadeloupe		26%	-7%	-95%	-96%	1,87	4,68
Guatemala		259%	20%	-51%	-83%	21,20	1,21
Guinea		199%	131%	31%	1%	2,92	0,23
Guinea-Bissau		146%	19%	8%	-48%	0,44	0,23
Guyana		182%	21%	-74%	-89%	1,52	1,94
Haiti		196%	44%	8%	-47%	3,58	0,32
Honduras		196%	-13%	-55%	-87%	10,36	1,06
Hong Kong		-25%	-40%	-98%	-98%	44,02	5,92
Hungary		-57%	-40%	-99%	-98%	53,18	5,49
Iceland		-4%	-40%	-98%	-99%	3,93	11,58
India		171%	-8%	-75%	-91%	2.597,36	1,90
Indonesia		135%	-8%	-82%	-93%	625,66	2,31
Iran		98%	-29%	-96%	-98%	701,99	8,47
Iraq		67%	-8%	-94%	-97%	197,61	5,03
Ireland		-36%	-49%	-98%	-99%	36,55	7,49
Israel and Palestine, State of		13%	-45%	-96%	-98%	68,33	5,06
Italy, San Marino and the Holy See		-55%	-55%	-98%	-98%	331,56	5,47
Jamaica		-40%	-39%	-96%	-96%	7,44	2,52
Japan		-42%	-45%	-99%	-99%	1.153,72	9,09
Jordan		68%	-17%	-89%	-95%	28,34	2,81
Kazakhstan		-37%	-35%	-99%	-99%	277,36	14,95
Kenya		172%	33%	-11%	-56%	19,81	0,38
Kiribati		66%	-35%	-36%	-75%	0,03	0,29
Kuwait		72%	-35%	-99%	-99%	98,95	23,52
Kyrgyzstan		-68%	14%	-97%	-89%	11,92	1,86
Laos		2086%	173%	268%	-54%	6,78	0,95
Latvia		-75%	-46%	-99%	-98%	8,38	4,39
Lebanon		172%	-21%	-87%	-96%	27,44	4,00
Lesotho		584%	28%	134%	-56%	0,75	0,35
Liberia		209%	124%	31%	-5%	1,21	0,24
Libya		-19%	-51%	-98%	-99%	52,05	7,68
Lithuania		-77%	-42%	-99%	-98%	13,77	4,99
Luxembourg		-53%	-51%	-99%	-99%	9,74	15,82
Macao		-19%	-33%	-93%	-94%	1,27	1,99
Madagascar		711%	158%	324%	35%	4,20	0,16
Malawi		599%	118%	349%	40%	1,62	0,09
Malaysia		150%	-34%	-94%	-98%	248,83	7,79
Maldives		780%	-34%	-11%	-93%	0,91	1,72
Mali		678%	417%	462%	273%	1,03	0,05
Malta		-73%	-76%	-98%	-98%	1,04	2,37
Martinique		21%	-15%	-96%	-97%	1,95	5,20
Mauritania		611%	136%	-27%	-76%	7,66	1,69
Mauritius		117%	-30%	-88%	-96%	4,33	3,41

reference values selected scenariotype: RM-3 lin	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		-1%	-40%	-95%	-97%	485,00	3,80
Moldova		-82%	-32%	-99%	-95%	9,23	2,28
Mongolia		57%	43%	-97%	-98%	35,93	11,14
Morocco		105%	-12%	-82%	-92%	73,91	2,03
Mozambique		656%	143%	183%	-9%	9,26	0,30
Myanmar/Burma		656%	294%	33%	-30%	48,31	0,89
Namibia		80%	-10%	-82%	-91%	4,40	1,76
Nepal		990%	149%	187%	-34%	15,02	0,52
Netherlands		-44%	-51%	-99%	-99%	156,41	9,15
New Caledonia		444%	79%	-98%	-99%	15,66	55,37
New Zealand		-7%	-35%	-98%	-98%	38,67	8,08
Nicaragua		108%	-12%	-63%	-85%	5,86	0,90
Niger		362%	193%	183%	79%	2,36	0,10
Nigeria		8%	-10%	-70%	-76%	100,22	0,50
North Korea		-80%	-49%	-98%	-95%	42,17	1,64
North Macedonia		-53%	-43%	-98%	-97%	8,92	4,28
Norway		-26%	-41%	-98%	-99%	47,99	8,92
Oman		239%	0%	-96%	-99%	92,78	18,65
Pakistan		133%	0%	-63%	-84%	223,63	1,03
Palau		-65%	-64%	-100%	-100%	1,33	73,84
Panama		158%	-25%	-83%	-95%	11,63	2,74
Papua New Guinea		46%	9%	-58%	-69%	4,07	0,46
Paraguay		149%	8%	-66%	-85%	8,47	1,20
Peru		71%	-21%	-83%	-92%	56,29	1,73
Philippines		123%	12%	-73%	-86%	150,64	1,39
Poland		-51%	-44%	-99%	-99%	317,65	8,38
Portugal		-35%	-47%	-97%	-98%	48,47	4,74
Puerto Rico		24%	10%	-84%	-86%	3,91	1,33
Qatar		254%	-14%	-98%	-100%	106,53	37,61
Réunion		79%	-39%	-90%	-97%	3,02	3,40
Romania		-75%	-44%	-99%	-97%	78,63	4,06
Russia		-57%	-41%	-99%	-99%	1.792,02	12,28
Rwanda		319%	178%	165%	76%	1,15	0,09
Saint Helena, Ascension and Tristan da		1%	-16%	-93%	-94%	0,02	2,61
Saint Kitts and Nevis		235%	-19%	-83%	-96%	0,19	3,67
Saint Lucia		149%	-12%	-73%	-91%	0,30	1,63
Saint Pierre and Miquelon		-76%	0%	-100%	-98%	0,06	10,64
Saint Vincent and the Grenadines		151%	-11%	-68%	-89%	0,15	1,32
Samoa		-21%	-14%	-83%	-82%	0,14	0,71
São Tomé and Príncipe		148%	-13%	-49%	-82%	0,16	0,74
Saudi Arabia		102%	-27%	-98%	-99%	614,61	17,94
Senegal		213%	7%	-25%	-75%	9,81	0,60
Serbia and Montenegro		-38%	-32%	-98%	-98%	70,69	7,52
Seychelles		109%	-35%	-96%	-99%	1,05	10,75
Sierra Leone		136%	138%	16%	17%	1,40	0,18
Singapore		-3%	-40%	-98%	-99%	53,37	9,19
Slovakia		-66%	-48%	-99%	-98%	35,99	6,59
Slovenia		-47%	-50%	-99%	-99%	15,37	7,39
Solomon Islands		20%	-13%	-45%	-60%	0,14	0,21
Somalia		252%	195%	145%	106%	0,97	0,06
South Africa		-9%	-39%	-98%	-99%	494,86	8,45
South Korea		38%	-38%	-98%	-99%	651,87	12,73
Spain and Andorra		-34%	-47%	-98%	-98%	259,31	5,54
Sri Lanka		326%	31%	-45%	-83%	27,57	1,29
Sudan and South Sudan		245%	15%	6%	-65%	22,57	0,42
Suriname		35%	-29%	-93%	-96%	2,06	3,54
Sweden		-55%	-51%	-98%	-98%	44,75	4,46
Switzerland and Liechtenstein		-48%	-50%	-98%	-98%	39,37	4,56
Syria		-44%	-70%	-94%	-97%	29,16	1,71
Taiwan		27%	-42%	-98%	-99%	276,78	11,64
Tajikistan		-50%	97%	-92%	-67%	8,92	0,96

reference values selected scenario type: RM-3 lin	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		593%	103%	203%	-11%	13,34	0,23
Thailand		75%	-34%	-92%	-97%	275,06	3,95
The Gambia		318%	32%	74%	-45%	0,59	0,25
Timor-Leste		188%	49%	9%	-44%	0,38	0,30
Togo		239%	2%	16%	-65%	2,85	0,35
Tonga		31%	-52%	-82%	-93%	0,13	1,22
Trinidad and Tobago		47%	-52%	-99%	-100%	32,74	23,47
Tunisia		32%	-30%	-91%	-95%	32,07	2,74
Turkey		62%	-21%	-94%	-97%	415,78	4,98
Turkmenistan		13%	-16%	-99%	-99%	90,52	15,23
Turks and Caicos Islands		1052%	-24%	-40%	-96%	0,13	3,53
Uganda		1211%	124%	657%	29%	5,34	0,12
Ukraine		-85%	-62%	-99%	-98%	196,40	4,46
United Arab Emirates		122%	-27%	-98%	-99%	222,61	22,78
United Kingdom		-64%	-58%	-99%	-99%	364,91	5,40
United States		-43%	-48%	-99%	-99%	5.107,26	15,52
Uruguay		5%	-36%	-90%	-94%	6,56	1,90
Uzbekistan		-53%	-47%	-97%	-97%	94,99	2,88
Vanuatu		-34%	-29%	-75%	-73%	0,09	0,29
Venezuela		-36%	-65%	-97%	-98%	110,06	3,86
Vietnam		795%	18%	-48%	-93%	305,25	3,16
Western Sahara		66%	-10%	-55%	-76%	0,30	0,51
Yemen		41%	-63%	-53%	-88%	10,89	0,37
Zambia		115%	180%	-34%	-14%	7,50	0,42
Zimbabwe		-54%	-21%	-91%	-84%	10,86	0,74
EU27		-55%	-50%	-99%	-99%	2.939,07	6,60
EU28		-56%	-51%	-99%	-99%	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. LUC and ISA

reference values scenario: RM-3 lin sorted by 'emissions 2019'	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
	vs. reference year	1990	2010	1990				
China	177%	-27%	-93%	-98%	11.535	8,0	31,5%	31%
United States	-43%	-48%	-99%	-99%	5.107	15,5	13,9%	45%
EU28	-56%	-51%	-99%	-99%	3.304	6,4	9,0%	45%
EU27	-55%	-50%	-99%	-99%	2.939	6,6	8,0%	45%
India	171%	-8%	-75%	-91%	2.597	1,9	7,1%	52%
Russia	-57%	-41%	-99%	-99%	1.792	12,3	4,9%	57%
Japan	-42%	-45%	-99%	-99%	1.154	9,1	3,1%	61%
Germany	-60%	-50%	-99%	-99%	703	8,4	1,9%	62%
Iran	98%	-29%	-96%	-98%	702	8,5	1,9%	64%
South Korea	38%	-38%	-98%	-99%	652	12,7	1,8%	66%
Indonesia	135%	-8%	-82%	-93%	626	2,3	1,7%	68%
Saudi Arabia	102%	-27%	-98%	-99%	615	17,9	1,7%	70%
Canada	-27%	-41%	-99%	-99%	585	15,6	1,6%	71%
South Africa	-9%	-39%	-98%	-99%	495	8,5	1,3%	72%
Mexico	-1%	-40%	-95%	-97%	485	3,8	1,3%	74%
Brazil	29%	-34%	-90%	-95%	478	2,3	1,3%	75%
Australia	-11%	-40%	-99%	-99%	433	17,2	1,2%	76%
Turkey	62%	-21%	-94%	-97%	416	5,0	1,1%	77%
United Kingdom	-64%	-58%	-99%	-99%	365	5,4	1,0%	78%
Italy, San Marino and the Holy S	-55%	-55%	-98%	-98%	332	5,5	0,9%	79%
Poland	-51%	-44%	-99%	-99%	318	8,4	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	497,19	268,66	321,85	256,72	364,76	328,35	308,1	28	
Albania	90,84	79,99	82,49	79,40	84,48	82,78	81,8	14	
Algeria	2.415,30	2.381,60	2.388,69	2.379,23	2.393,38	2.389,08	2.386,4	13	
Angola	599,06	430,11	469,36	421,22	500,92	474,11	459,1	18	
Anguilla	0,41	0,34	0,36	0,34	0,37	0,36	0,4	15	
Antigua and Barbuda	6,58	6,64	6,62	6,64	6,61	6,62	6,6	13	
Argentina	2.640,03	2.620,49	2.624,20	2.618,79	2.626,05	2.624,12	2.622,7	13	
Armenia	94,49	83,50	86,04	82,91	88,05	86,33	85,4	14	
Aruba	9,69	10,06	9,97	10,08	9,89	9,96	10,0	13	
Australia	5.024,71	5.443,36	5.344,00	5.463,68	5.261,26	5.330,64	5.368,6	12	
Austria	885,91	925,47	915,95	927,28	907,84	914,58	918,2	13	
Azerbaijan	495,83	479,72	483,32	478,76	486,03	483,67	482,3	13	
Bahamas	30,84	31,63	31,43	31,66	31,26	31,40	31,5	13	
Bahrain	406,73	443,65	434,90	445,45	427,63	433,73	437,1	12	
Bangladesh	2.825,41	1.930,27	2.138,35	1.883,28	2.305,79	2.163,60	2.084,3	19	
Barbados	45,01	48,30	47,52	48,46	46,86	47,41	47,7	12	
Belarus	824,40	852,71	845,84	853,96	839,90	844,82	847,4	13	
Belgium	1.264,65	1.330,56	1.314,76	1.333,63	1.301,40	1.312,54	1.318,6	13	
Belize	7,95	5,95	6,41	5,84	6,78	6,47	6,3	17	
Benin	206,47	141,92	156,93	138,54	169,00	158,75	153,0	19	
Bermuda	4,47	4,54	4,53	4,55	4,51	4,52	4,5	13	
Bhutan	30,95	28,91	29,38	28,80	29,74	29,43	29,3	14	
Bolivia	383,90	343,07	352,48	340,86	359,94	353,57	350,0	14	
Bosnia and Herzegovina	401,73	425,43	419,77	426,55	415,00	418,99	421,1	13	
Botswana	100,34	95,03	96,23	94,73	97,17	96,36	95,9	14	
Brazil	7.354,84	6.645,07	6.808,41	6.606,48	6.937,61	6.827,18	6.765,0	14	
British Virgin Islands	1,64	1,61	1,61	1,60	1,62	1,61	1,6	13	
Brunei	81,64	88,27	86,69	88,59	85,38	86,48	87,1	12	
Bulgaria	546,49	559,67	556,42	560,21	553,54	555,90	557,2	13	
Burkina Faso	240,99	115,93	145,05	109,41	168,55	148,62	137,5	38	
Burundi	117,69	44,41	61,48	40,59	75,27	63,58	57,1	169	
Cabo Verde	16,71	14,56	15,06	14,45	15,45	15,12	14,9	15	
Cambodia	344,63	261,27	280,63	256,88	296,16	282,96	275,6	17	
Cameroon	367,07	215,13	250,48	207,18	278,99	254,80	241,3	24	
Canada	6.814,46	7.357,69	7.228,66	7.383,98	7.121,09	7.211,26	7.260,5	12	
Cayman Islands	5,08	5,21	5,17	5,21	5,15	5,17	5,2	13	
Central African Republic	52,34	22,66	29,57	21,11	35,15	30,42	27,8	56	
Chad	167,46	66,69	90,16	61,44	109,12	93,04	84,1	94	
Chile	1.177,84	1.176,92	1.176,75	1.176,56	1.176,11	1.176,49	1.176,6	13	
China	141.282,91	147.547,66	146.039,46	147.834,52	144.755,12	145.823,46	146.400,0	13	
Colombia	1.451,26	1.245,18	1.292,83	1.234,15	1.330,82	1.298,44	1.280,3	15	
Comoros	10,77	5,61	6,81	5,34	7,78	6,96	6,5	30	
Congo	117,13	90,49	96,67	89,08	101,63	97,42	95,1	16	
Cook Islands	0,66	0,60	0,62	0,60	0,63	0,62	0,6	14	
Costa Rica	148,83	128,57	133,25	127,49	136,98	133,80	132,0	15	
Côte d'Ivoire	403,54	257,24	291,27	249,58	318,68	295,41	282,4	21	
Croatia	251,51	250,68	250,79	250,57	250,77	250,75	250,7	13	
Cuba	454,10	423,16	430,24	421,45	435,78	431,02	428,3	14	
Curaçao	66,78	73,65	72,02	73,99	70,68	71,81	72,4	12	
Cyprus	93,54	95,79	95,23	95,88	94,74	95,15	95,4	13	
Czechia	1.270,33	1.343,39	1.325,92	1.346,83	1.311,21	1.323,50	1.330,2	13	
Democratic Republic of the Congo	890,67	339,72	468,07	311,02	571,72	483,81	434,9	146	
Denmark	399,96	404,68	403,45	404,82	402,28	403,22	403,7	13	
Djibouti	21,18	16,36	17,48	16,11	18,38	17,61	17,2	16	
Dominica	1,85	1,53	1,60	1,51	1,66	1,61	1,6	15	
Dominican Republic	406,71	374,53	381,91	372,76	387,72	382,75	379,9	14	
Ecuador	620,20	563,57	576,59	560,48	586,88	578,08	573,1	14	
Egypt	3.806,22	3.505,98	3.574,85	3.489,47	3.629,01	3.582,62	3.556,4	14	
El Salvador	142,53	110,83	118,18	109,15	124,09	119,07	116,3	16	
Equatorial Guinea	51,69	47,67	48,59	47,45	49,32	48,69	48,3	14	
Eritrea	42,79	21,43	26,41	20,32	30,42	27,01	25,1	34	

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	217,00	233,27	229,40	234,06	226,17	228,88	230,4	12
Eswatini	23,94	18,13	19,48	17,83	20,57	19,64	19,1	17
Ethiopia	1.308,86	616,64	777,83	580,53	907,93	797,57	736,1	40
Falkland Islands	0,38	0,40	0,40	0,41	0,39	0,40	0,4	13
Faroese	0,50	0,19	0,27	0,18	0,32	0,27	0,2	128
Fiji	23,79	19,92	20,82	19,71	21,53	20,92	20,6	15
Finland	533,09	555,80	550,32	556,83	545,65	549,54	551,6	13
France and Monaco	4.112,32	4.116,70	4.114,35	4.115,86	4.110,65	4.113,22	4.114,2	13
French Guiana	9,60	8,56	8,80	8,50	8,99	8,83	8,7	14
French Polynesia	9,37	8,38	8,61	8,33	8,79	8,63	8,5	14
Gabon	59,88	50,65	52,78	50,15	54,49	53,03	52,2	15
Georgia	187,98	180,45	182,14	180,01	183,44	182,32	181,7	13
Germany	8.567,74	8.973,70	8.876,16	8.992,45	8.793,34	8.862,31	8.899,6	13
Ghana	486,17	314,21	354,20	305,19	386,41	359,06	343,8	20
Gibraltar	7,98	8,69	8,52	8,72	8,38	8,50	8,6	12
Greece	826,05	846,80	841,69	847,66	837,18	840,88	842,8	13
Greenland	6,47	6,83	6,74	6,85	6,67	6,73	6,8	13
Grenada	3,63	3,22	3,31	3,19	3,39	3,32	3,3	14
Guadeloupe	24,59	24,54	24,55	24,53	24,54	24,54	24,5	13
Guatemala	407,34	323,28	342,77	318,83	358,39	345,11	337,7	16
Guinea	158,41	80,66	98,76	76,60	113,37	100,98	94,1	32
Guinea-Bissau	23,80	12,11	14,83	11,50	17,03	15,16	14,1	32
Guyana	24,51	21,54	22,23	21,38	22,77	22,31	22,0	14
Haiti	150,73	83,50	99,15	79,99	111,77	101,06	95,1	27
Honduras	210,45	161,99	173,23	159,43	182,26	174,59	170,3	16
Hong Kong	558,53	569,87	567,04	570,31	564,51	566,58	567,7	13
Hungary	681,76	690,99	688,62	691,29	686,39	688,18	689,1	13
Iceland	46,61	49,69	48,96	49,84	48,34	48,85	49,1	13
India	42.126,56	36.864,51	38.079,45	36.581,64	39.045,96	38.221,64	37.758,6	15
Indonesia	9.569,21	8.675,87	8.881,35	8.627,21	9.043,75	8.904,90	8.826,6	14
Iran	8.555,01	8.964,01	8.865,76	8.982,92	8.782,38	8.851,83	8.889,4	13
Iraq	2.566,11	2.579,13	2.575,26	2.579,14	2.571,01	2.574,26	2.575,8	13
Ireland	451,00	468,67	464,40	469,47	460,74	463,78	465,4	13
Israel and Palestine, State of	886,39	891,48	890,00	891,51	888,42	889,64	890,2	13
Italy, San Marino and the Holy See	4.252,45	4.308,65	4.294,15	4.310,44	4.280,55	4.291,49	4.297,1	13
Jamaica	111,14	102,25	104,29	101,76	105,89	104,52	103,7	14
Japan	13.967,21	14.699,56	14.524,07	14.733,76	14.375,71	14.499,45	14.566,5	13
Jordan	412,13	385,46	391,55	383,97	396,31	392,22	389,9	14
Kazakhstan	3.239,77	3.492,23	3.432,24	3.504,43	3.382,20	3.424,14	3.447,0	12
Kenya	737,94	428,29	500,35	412,10	558,44	509,14	481,7	24
Kiribati	1,53	0,83	0,99	0,79	1,12	1,01	0,9	28
Kuwait	1.131,99	1.237,47	1.212,48	1.242,63	1.191,72	1.209,15	1.218,7	12
Kyrgyzstan	194,78	169,70	175,50	168,36	180,11	176,17	174,0	15
Laos	145,61	108,84	117,38	106,90	124,24	118,41	115,2	17
Latvia	111,18	110,20	110,39	110,12	110,50	110,39	110,3	13
Lebanon	370,10	362,97	364,52	362,51	365,61	364,63	364,0	13
Lesotho	29,32	16,74	19,66	16,08	22,02	20,02	18,9	25
Liberia	62,10	32,15	39,12	30,59	44,75	39,98	37,3	31
Libya	640,51	666,81	660,46	668,00	655,04	659,54	662,0	13
Lithuania	179,03	179,81	179,57	179,81	179,30	179,51	179,6	13
Luxembourg	113,41	122,51	120,35	122,95	118,55	120,06	120,9	12
Macao	20,34	17,95	18,50	17,82	18,94	18,56	18,4	14
Madagascar	312,82	145,99	184,84	137,29	216,20	189,60	174,8	42
Malawi	201,93	84,97	112,21	78,88	134,21	115,55	105,2	65
Malaysia	3.057,79	3.186,40	3.155,39	3.192,25	3.128,91	3.150,91	3.162,8	13
Maldives	15,31	13,13	13,64	13,02	14,04	13,69	13,5	15
Mali	205,65	81,34	110,30	74,86	133,68	113,85	102,8	100
Malta	15,85	14,43	14,76	14,36	15,02	14,80	14,7	14
Martinique	25,24	25,46	25,40	25,46	25,34	25,39	25,4	13
Mauritania	129,13	110,44	114,76	109,44	118,21	115,27	113,6	15
Mauritius	60,28	57,96	58,48	57,82	58,88	58,54	58,3	13

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	6.605,39	6.438,53	6.475,35	6.428,18	6.502,32	6.478,58	6.464,6	13
Moldova	141,66	128,16	131,26	127,42	133,72	131,62	130,4	14
Mongolia	427,80	455,25	448,70	456,56	443,21	447,80	450,3	13
Morocco	1.174,96	1.040,65	1.071,62	1.033,40	1.096,23	1.075,23	1.063,4	14
Mozambique	402,16	220,38	262,69	210,89	296,81	267,86	251,7	27
Myanmar/Burma	1.066,52	785,58	850,83	770,79	903,25	858,71	833,8	17
Namibia	73,14	63,08	65,40	62,54	67,26	65,68	64,8	15
Nepal	448,26	285,42	323,30	276,89	353,80	327,90	313,5	21
Netherlands	1.892,59	1.992,53	1.968,59	1.997,20	1.948,35	1.965,23	1.974,4	13
New Caledonia	175,32	194,46	189,94	195,40	186,19	189,34	191,1	12
New Zealand	473,38	494,53	489,44	495,50	485,11	488,71	490,7	13
Nicaragua	129,25	95,24	103,14	93,45	109,49	104,09	101,1	17
Niger	256,39	110,50	144,48	102,89	171,91	148,64	135,7	58
Nigeria	3.090,63	1.939,74	2.207,44	1.879,47	2.423,11	2.240,03	2.138,0	21
North Korea	718,40	610,71	635,62	604,95	655,50	638,56	629,1	15
North Macedonia	118,93	117,54	117,83	117,44	118,01	117,84	117,7	13
Norway	582,00	611,81	604,66	613,20	598,61	603,65	606,4	13
Oman	1.071,57	1.163,88	1.141,99	1.168,37	1.123,76	1.139,05	1.147,4	12
Pakistan	4.604,66	3.519,11	3.771,07	3.461,82	3.973,31	3.801,40	3.705,3	17
Palau	14,83	16,49	16,10	16,58	15,78	16,05	16,2	12
Panama	170,17	158,58	161,23	157,93	163,30	161,52	160,5	14
Papua New Guinea	131,64	80,98	92,76	78,32	102,26	94,20	89,7	22
Paraguay	162,92	129,20	137,02	127,41	143,29	137,96	135,0	16
Peru	941,56	808,99	839,64	801,89	864,07	843,25	831,6	15
Philippines	2.728,55	2.238,78	2.352,24	2.212,76	2.443,03	2.365,77	2.322,5	15
Poland	3.874,85	4.057,57	4.013,66	4.066,00	3.976,38	4.007,42	4.024,2	13
Portugal	635,21	634,67	634,59	634,48	634,25	634,45	634,5	13
Puerto Rico	72,08	58,55	61,69	57,83	64,20	62,06	60,9	16
Qatar	1.201,87	1.326,28	1.296,85	1.332,40	1.272,46	1.292,95	1.304,2	12
Réunion	42,09	40,44	40,81	40,35	41,10	40,85	40,7	13
Romania	1.057,87	1.039,25	1.043,25	1.038,01	1.046,04	1.043,53	1.042,0	13
Russia	21.188,84	22.653,58	22.304,78	22.723,74	22.012,76	22.257,16	22.390,4	12
Rwanda	137,51	58,31	76,76	54,18	91,65	79,02	72,0	62
Saint Helena, Ascension and Tristan da Cunha	0,23	0,22	0,22	0,22	0,22	0,22	0,2	14
Saint Kitts and Nevis	2,66	2,58	2,60	2,57	2,61	2,60	2,6	13
Saint Lucia	5,08	4,31	4,49	4,27	4,63	4,51	4,4	15
Saint Pierre and Miquelon	0,74	0,79	0,78	0,79	0,77	0,77	0,8	13
Saint Vincent and the Grenadines	2,70	2,19	2,31	2,16	2,40	2,32	2,3	16
Samoa	3,48	2,41	2,66	2,35	2,86	2,69	2,6	19
São Tomé and Príncipe	3,88	2,72	2,99	2,65	3,20	3,02	2,9	18
Saudi Arabia	7.111,36	7.714,50	7.571,39	7.743,81	7.452,27	7.552,18	7.606,8	12
Senegal	269,16	178,08	199,26	173,30	216,30	201,83	193,8	20
Serbia and Montenegro	871,85	906,31	897,99	907,87	890,85	896,78	900,0	13
Seychelles	12,54	13,32	13,14	13,36	12,98	13,11	13,2	13
Sierra Leone	92,65	44,57	55,77	42,06	64,80	57,14	52,9	38
Singapore	645,43	679,71	671,50	681,31	664,56	670,35	673,5	13
Slovakia	450,47	463,72	460,48	464,29	457,66	459,99	461,2	13
Slovenia	189,86	197,13	195,37	197,45	193,86	195,11	195,8	13
Solomon Islands	8,15	4,06	5,01	3,84	5,78	5,13	4,8	34
Somalia	163,30	65,85	88,55	60,78	106,88	91,34	82,7	85
South Africa	6.031,90	6.319,52	6.250,43	6.332,81	6.191,78	6.240,62	6.267,0	13
South Korea	7.689,57	8.234,14	8.104,52	8.260,27	7.996,08	8.086,86	8.136,4	12
Spain and Andorra	3.320,15	3.367,74	3.355,56	3.369,34	3.344,24	3.353,37	3.358,0	13
Sri Lanka	514,52	415,05	438,11	409,78	456,58	440,87	432,1	16
Sudan and South Sudan	781,21	466,93	540,05	450,49	598,99	548,97	521,1	23
Suriname	28,43	27,47	27,68	27,41	27,85	27,70	27,6	13
Sweden	592,30	588,00	588,81	587,62	589,21	588,79	588,5	13
Switzerland and Liechtenstein	519,14	516,63	517,05	516,37	517,16	516,99	516,8	13
Syria	490,05	419,91	436,13	416,16	449,06	438,04	431,9	15
Taiwan	3.285,00	3.503,29	3.451,26	3.513,71	3.407,66	3.444,14	3.464,0	13
Tajikistan	190,40	142,73	153,80	140,22	162,69	155,14	150,9	17



<b>sum emissions 2020 - 2100 - national budgets -</b>	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	720,33	367,29	449,48	348,86	515,80	459,54	428,2	32
Thailand	3.719,22	3.642,03	3.658,85	3.637,07	3.670,86	3.660,18	3.653,8	13
The Gambia	29,73	15,51	18,82	14,77	21,49	19,23	18,0	30
Timor-Leste	17,02	9,26	11,07	8,86	12,52	11,29	10,6	28
Togo	111,34	63,48	74,62	60,98	83,60	75,98	71,7	25
Tonga	2,44	1,95	2,06	1,92	2,15	2,07	2,0	16
Trinidad and Tobago	374,61	409,49	401,23	411,20	394,36	400,13	403,3	12
Tunisia	469,00	437,13	444,42	435,36	450,12	445,23	442,5	14
Turkey	5.406,29	5.429,10	5.422,03	5.428,87	5.413,94	5.420,05	5.422,8	13
Turkmenistan	1.056,25	1.139,37	1.119,62	1.143,38	1.103,15	1.116,95	1.124,5	12
Turks and Caicos Islands	1,86	1,80	1,81	1,80	1,83	1,82	1,8	13
Uganda	496,38	220,46	284,72	206,07	336,59	292,59	268,1	50
Ukraine	2.599,05	2.580,51	2.584,00	2.578,87	2.585,70	2.583,90	2.582,6	13
United Arab Emirates	2.549,64	2.784,99	2.729,23	2.796,49	2.682,90	2.721,78	2.743,1	12
United Kingdom	4.688,52	4.744,92	4.730,24	4.746,61	4.716,29	4.727,46	4.733,1	13
United States	59.531,78	64.260,49	63.137,28	64.489,30	62.200,74	62.985,74	63.414,7	12
Uruguay	106,56	93,20	96,29	92,49	98,74	96,65	95,5	15
Uzbekistan	1.372,74	1.288,93	1.308,06	1.284,25	1.322,96	1.310,15	1.302,9	14
Vanuatu	3,91	2,11	2,53	2,02	2,87	2,58	2,4	28
Venezuela	1.494,61	1.459,52	1.467,23	1.457,32	1.472,83	1.467,88	1.465,0	13
Vietnam	4.317,07	4.108,67	4.155,93	4.096,78	4.192,36	4.160,92	4.142,9	14
Western Sahara	9,03	5,71	6,48	5,53	7,10	6,57	6,3	21
Yemen	408,21	236,31	276,31	227,32	308,56	281,19	265,9	24
Zambia	259,20	155,04	179,27	149,59	198,81	182,23	173,0	23
Zimbabwe	264,44	185,33	203,71	181,17	218,50	205,94	198,9	18
EU27	36.785,08	37.871,86	37.606,27	37.918,43	37.374,90	37.565,80	37.667,5	13
EU28	41.473,60	42.616,78	42.336,51	42.665,04	42.091,19	42.293,27	42.400,6	13
sub sum 2020 - 2100	558.444	560.406	559.768	560.362	559.007	559.575	559.824	
EU27	-36.785	-37.872	-37.606	-37.918	-37.375	-37.566	-37.667	
EU28	-41.474	-42.617	-42.337	-42.665	-42.091	-42.293	-37.667	
<b>sum</b>	<b>480.186</b>	<b>479.918</b>	<b>479.825</b>	<b>479.778</b>	<b>479.541</b>	<b>479.716</b>	<b>484.489</b>	
base data: budget 2020 - 2100*	480.000	480.000	480.000	480.000	480.000	480.000	480.000	
rounding differences	186	-82	-175	-222	-459	-284	4.489	
difference in %	0,04%	-0,02%	-0,04%	-0,05%	-0,10%	-0,06%	0,94%	
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**	<b>15,9%</b>	<b>5,6%</b>	<b>8,0%</b>	<b>5,1%</b>	<b>9,9%</b>	<b>8,3%</b>	<b>7,4%</b>	
global (start) change rate 2020	-6,9%	-1,5%	-1,5%	-1,5%	-1,5%	-3,7%		
global change rate 2030 vs. 2010	-51%	-27%	-37%	-28%	-42%	-36%		
global overshoot in Gt	0	0	0	0	0	0		
base data: global CO2 budget 2018 - 2100 incl. LUC and ISA in Gt:							<b>570</b>	

\* excl. LUC and ISA

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

<b>national budgets 2020 - 2100</b> sorted by 'average budget'	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	share in the global budget
in Mill. t									
China	141.283	147.548	146.039	147.835	144.755	145.823	146.400	13	30,2%
United States	59.532	64.260	63.137	64.489	62.201	62.986	63.415	12	13,1%
EU28	41.474	42.617	42.337	42.665	42.091	42.293	42.401	13	8,8%
India	42.127	36.865	38.079	36.582	39.046	38.222	37.759	15	7,8%
EU27	36.785	37.872	37.606	37.918	37.375	37.566	37.667	13	7,8%
Russia	21.189	22.654	22.305	22.724	22.013	22.257	22.390	12	4,6%
Japan	13.967	14.700	14.524	14.734	14.376	14.499	14.567	13	3,0%
Germany	8.568	8.974	8.876	8.992	8.793	8.862	8.900	13	1,8%
Iran	8.555	8.964	8.866	8.983	8.782	8.852	8.889	13	1,8%
Indonesia	9.569	8.676	8.881	8.627	9.044	8.905	8.827	14	1,8%
South Korea	7.690	8.234	8.105	8.260	7.996	8.087	8.136	12	1,7%
Saudi Arabia	7.111	7.714	7.571	7.744	7.452	7.552	7.607	12	1,6%
Canada	6.814	7.358	7.229	7.384	7.121	7.211	7.261	12	1,5%
Brazil	7.355	6.645	6.808	6.606	6.938	6.827	6.765	14	1,4%
Mexico	6.605	6.439	6.475	6.428	6.502	6.479	6.465	13	1,3%
South Africa	6.032	6.320	6.250	6.333	6.192	6.241	6.267	13	1,3%
Turkey	5.406	5.429	5.422	5.429	5.414	5.420	5.423	13	1,1%
Australia	5.025	5.443	5.344	5.464	5.261	5.331	5.369	12	1,1%
United Kingdom	4.689	4.745	4.730	4.747	4.716	4.727	4.733	13	1,0%
Italy, San Marino and the Holy See	4.252	4.309	4.294	4.310	4.281	4.291	4.297	13	0,9%
Vietnam	4.317	4.109	4.156	4.097	4.192	4.161	4.143	14	0,9%

<b>central premises</b>	
global CO2 budget 2018 - 2100	570 Gt
emissions in 2018 and 2019, LUC and ISA	-90 Gt
budget 2020 - 2100 to distribute in this tool	480 Gt
minimum annual global emissions	0 Gt
convergence level	0,25 t / capita

<b>gobal path properties</b>	RM-1	RM-2	RM-3	RM-4	RM-5	RM-6
	const	exp	lin	quadr	rad	abs
implicit population weighting vs. emissions**	16%	6%	8%	5%	10%	8%
global (start) change rate 2020	-6,9%	-1,5%	-1,5%	-1,5%	-1,5%	-3,7%
global change rate 2030 vs. 2010	-51%	-27%	-37%	-28%	-42%	-36%
global overshoot in Gt	0	0	0	0	0	0

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

<b>the Regensburg Model means:</b>
▶ 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)

<b>content of this document</b>	page
reference values for all countries (alphabetically)	1
reference values for the countries with the highest emissions (sorted by emissions)	5
national budgets for all countries (alphabetically)	6
national budgets for the countries with the highest emissions (sorted by budget)	10
central premises	11
global paths properties	11
what the Regensburg Model means	11